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CONSTITUTIONS, CORPORATIONS, AND CORRUPTION: AMERICAN STATES AND CONSTITUTIONAL CHANGE, 1842-1852

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ABSTRACT

During the 1840s, twelve American states adopted new constitutions. Eleven of the twelve states adopted new procedures for issuing government debt and for chartering corporations through general incorporation acts. These institutional innovations were American inventions, and today hard budget constraints and transparent corporate forms with secure stockholder rights are important institutional determinants of successful economies. This paper investigates how and why these two important institutional reforms occurred at precisely the same time. The link is the public finance implications of chartering corporations and investing in large infrastructure projects in finance and transportation. States borrowed almost $200 million between 1820 and 1840 to invest in canals, railroads, and banks. Electoral pressure to provide these important government investments was counter-balanced by the difficulty of providing geographically specific projects and paying for them with geographically widespread taxation. States responded with several innovative schemes for financing canals and banks in the 1820s and 1830s. Some schemes involved "taxless finance:" construction of canals and banks used borrowed funds and privileges for private corporations so that current taxes did not rise, but required a contingent commitment by taxpayers to service bonds in case of the project's failure. Other schemes involved "benefit taxation:" coordinating the tax costs of projects with the geographic benefits of canal and bank construction through the property tax. When a fiscal crisis hit states in the early 1840s, they responded by changing their constitutions, and thereby economic institutions, to eliminate the possibility of taxless finance in the future.

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Between 1790 and 1860, the United States population moved west over the Appalachians and across the Gulf plains, creating new states as they went. The states, with some federal assistance, constructed a system of finance and transportation to tie the nation together. The states developed a set of economic institutions that allowed free entry into the corporate form, limited the ability of governments to incur unfunded debts and encouraged generally responsible public finance, and demonstrated that a democratic republic could deliver on a commitment to secure private property rights and rule of law. These accomplishments are celebrated parts of American economic history. How were they related? Did state government's efforts to provide the physical and commercial links in the nation's infrastructure lead to changes in, or follow from, existing economic and political institutions? The development of two specific economic institutions that developed first in the United States -- transparent corporate forms with secure stockholder rights and hard budget constraints for governments -- followed the collapse of state efforts to promote banks, canals, and railroads in the early 1840s. The institutional changes were concentrated in a short period of time, between 1842 to 1852, and were easily observable through explicit changes in state constitutions.

The simultaneous adoption of new methods for chartering corporations and regulating the issue of government debt offers a unique opportunity to explain why economic and political institutions change.[1] Between 1842 and 1852, twelve existing states wrote new constitutions and eleven of the twelve contained provisions mandating that state legislatures pass general incorporation laws and that legislatures adopt new procedures for authorizing government borrowing. No existing economic history links the two reforms, except by chronology, yet there was a strong relationship underlying their simultaneous adoption. The importance of corporations and debt issue for the public finance of state governments, working through the alternative ways of financing canal and banks used by states in the 1820s and 1830s, is the link connecting the two reforms. When state finances collapsed, states looked to their own histories of borrowing and spending to comprehend how they got into their predicament: in 1842, eight state and the Territory of Florida were in default on their debts and three other states were in perilous financial condition. How they interpreted the causes of the crisis in 1842 informed how they changed their constitutions between 1842 and 1852.

The uniform adoption of democratic and republican institutions of government and the widespread adoption of near universal white male suffrage by the 1820s, created political pressure on state governments to promote economic growth through investments in banks and canals. These pressures were particularly strong wherever large amounts of undeveloped land stood to appreciate in value from better transportation and financial infrastructure. But democracy posed another problem for the building of canals and banks: geographic competition. When, for example, New York contemplated the Erie canal, the primary opposition came from farmers along the Hudson and on Long Island who gained nothing from a canal benefitting upstate land owners. Since tax liabilities for the canal were spread throughout the state, most counties expected to be worse off if the canal were built: they gained nothing and paid higher taxes. This scenario played out again and again as states struggled to provide geographically specific services funded by general taxation, and their solutions shared common characteristics. It was impossible to spread the benefits around equally, since no state could build a canal to every county. But it was possible to develop creative ways of financing projects. One of the methods, "benefit taxation," tied taxes paid by land owners to the benefits they received from projects using *ad valorem* property taxation. Other schemes involved a variety of ways to finance the construction of projects without raising current taxes; what can be termed "taxless finance." Taxless finance usually involved tax payers assuming a contingent liability. As long as the bank or canal under consideration was a financial success, the tax payers bore no costs. The economic depression that began in 1839, however, doomed the financial hopes of the states and realization of the contingent liabilities triggered the state financial crisis of the 1840s. Constitutional changes after 1842 were specifically designed to eliminate taxless finance: to prevent states from entering into long term financial commitments without simultaneously raising current taxes. The lesson state governments thought they learned in the 1840s was that taxes must be raised when spending is contemplated. If taxes are not raised, taxpayers and politicians may not adequately factor in the risks of higher taxes in the future. This is equally a lesson for developing and developed countries at the beginning of the 21st century.

Since taxless finance arrangements often worked by combining special corporate charters for businesses with the creation of state debt, eliminating taxless finance required states to change both the way they issued debt and the way they chartered corporations. This is the link that ties the two constitutional reforms together, and illuminates what states were trying to accomplish in the 1840s. The first five sections lay out the constitutional reforms, the public finance issues, the history of state government investment and borrowing in the 1820s and 1830s, the logic behind eliminating taxless finance, and what politicians in the 1840s actually said they were doing. The last three sections consider an alternative explanation for the constitutional changes, extend the implications of the changes through the 19th century, and draw conclusions for our understanding of the process of institutional change.

I. *Constitutional Concepts and Historical Background*

When the United States of America declared its independence, all fourteen governments, national and state, assumed sovereign powers. First state constitutions, then the Articles of Confederation, and finally the federal constitution written in 1787 made those powers explicit, limited them, or expanded them. In 1790, neither the new national constitution nor the thirteen state constitutions said anything about the creation of corporations, limitations on the amount of government debt or how to borrow, and placed few limits on taxation.[2]

Under British law the power to create corporate privileges was an aspect of sovereignty. In the United States, the federal and state governments both assumed the power to create corporations. Initially, all corporations were, in the language of the time, "special:" created by an act of the legislature that specified the rights and responsibilities of each corporation individually. Americans immediately began making wider use of the corporate form than their British cousins. States chartered banks in significant numbers in the 1790s and by the 1810s incorporated business firms of all types.[3] Americans consciously developed new forms of business association.[4] State legislatures intensely debated the creation of new corporations. On one hand, Americans innately distrusted corporations and their grants of special privilege; they worried that corporate privileges provided more for the advancement of private interests than the public good; they worried about the effect of money and business interests on politics and legislation; in a word, they worried about corruption. There was reason to worry, there were numerous examples of truly special privileges created in charters approved by state legislatures. The Camden and Amboy railroad obtained a monopoly of the northeast to southwest rail route in New Jersey, connecting New York and Philadelphia, in return for giving a substantial block of stock to the state. In New York, the Albany Regency headed by Martin Van Buren, gave out bank charters only to its political allies. In Arkansas, the state chartered a bank and capitalized it by issuing state bonds, and then allowed the bank to be controlled by two powerful families. In Massachusetts, the Charles River Bridge Company asserted that its charter gave it a monopoly of all bridges over the Charles River, and took the state all the way to the Supreme Court to protect its claim (it lost).[5]

On the other hand, two powerful positive forces counterbalanced concerns about corporations. One force was personal interest. Americans tended to distrust corporations in general, but to favor those corporations that served their specific interests.[6] The other force was aversion to taxation: corporations often contributed handsomely to the state Treasury. Banks provide the earliest examples: New York, Pennsylvania, Maryland, and Massachusetts all invested in or owned stock in banks in the early years of the 19th century. In Massachusetts, a tax on bank capital accounted for over 50 percent of state revenues by the 1830s. In Pennsylvania, bank charter fees and dividends on state owned bank stock accounted for over 30 percent of state revenues between 1800 and 1830. Alabama and Georgia were able to replace their state property taxes with dividends from state owned banks in the early 1830s.[7] These corporate charters did not represent cronyism, they were not cases of venal corruption where public officials used public office for private gain, nor were they remotely illegal. They were an open exchange of privilege for revenue.

There were few limits on what states could do to raise revenues. The ability of states to generate revenues by selling privileges was widely applauded by corporate supporters as a way to reduce taxes. The ability of states to extract revenues in return for corporate privileges depended on the value of the privileges. Grants of monopoly or exclusive franchise were more highly valued than privileges available to all. As long as legislatures granted charters individually, states faced a constant conflict over how many charters they should issue, and they had to continuously balance the possibility of creating (and charging for) private rents by limiting charters against the benefits of wider public access to corporate forms and lines of business.[8] Competition between groups who wanted exclusive charters and the persistent pressure to charter corporations in general laid legislatures open to charges of corruption. One way out the conflict was to pass a general incorporation act. General incorporation acts removed most the rents associated with corporate charters by allowing free entry.[9] These laws created an administrative mechanism to create corporations. Under a general act, all corporations shared common features with respect to stockholders, internal structures, and liability -- creating more transparent corporate forms with strong guarantees of shareholder rights.[10] Opening entry reduced the possible revenue that states received from selling charters, but it also eliminated the political pressure on states to create special privileges for favored groups through special charters. In the 1840s, state constitutions began to require general incorporation laws.

The power to incur debt was another aspect of British sovereignty inherited by American governments. In addition to promoting banks, states were deeply involved in promoting improvements in transportation. In the 1790s and 1800s this typically involved subsidies and/or stock purchases in bridge, road, and turnpike companies.[11] Rents were problematic in transportation, as these were rarely profitable investments for state governments.[12] But in 1817, acting on its own after failing to receive federal support, New York embarked on the largest infrastructure project of its time, the Erie Canal. Fearful that the canal would not pay for itself, the state endowed the Canal Fund with several sources of revenue. The canal turned out to be a phenomenally successful investment. Completed in 1825, it soon returned funds to the state over and above maintenance costs and interest payments. Just as banks proved profitable investments and sources of tax revenues for states in the 1800s and 1810s, it now appeared canals could as well. In the late 1820s, Ohio, Pennsylvania, and Maryland started canals, all with hopes they would pay for themselves and return a handsome dividend to the state treasury.

In the mid-1830s, spurred by the rapidly expanding economy and the boom in federal land sales, states throughout the country began, or expanded, their transportation and banking investments. In 1836 and 1837, Indiana, Illinois, Michigan, and Massachusetts started new canals and railroads, while New York, Ohio, and Pennsylvania committed to expanding their systems. Banks dominated southern investments. Louisiana invested $23 million in banks beginning in 1824. Alabama, Georgia, and Florida made substantial investments in the early 1830s, while Mississippi and Arkansas committed millions to banks in 1837 and 1838. State debts expanded from a few million in 1820, to $80 million in 1830, and $200 million in 1841. The total and per capita amounts outstanding in 1841 are given in Table 1, and annual debt issued each year as well as the total debt outstanding is given in Figure 1. The relative size of these investments is truly amazing. In 1836, Indiana, with a population of roughly 600,000 and a state budget of $50,000 a year, authorized a bond issue of $10,000,000 in 5 percent bonds. Michigan, with a population of no more than 200,000 and state revenues of $17,000 in 1836, authorized a bond issue of $5,000,000 of 5 percent bonds in 1837.[13]

Unfortunately, the boom in canal, railroad, and bank investment came to a rapid and unhappy end in the depression that began in 1839. By the summer of 1842, eight states and the

Territory of Florida were in default on interest payments. Table 1 also notes whether a state defaulted. Ultimately, Mississippi and Florida repudiated their debts outright, while Louisiana, Arkansas, and Michigan repudiated part of their debts. New York, Ohio, and Alabama barely avoided default.[14]

In the 1840s, states constitutions created explicit procedures for authorizing government borrowing. State and local governments were required to identify the purpose of the debt issue; raise current taxes by an amount sufficient to service the debt; and hold a public referendum to authorize the tax increase. Procedural limitations did not cap the amount of debt a state could issue. They required state and local governments to raise taxes before they borrowed and made those taxes irrevocable until the debt had been repaid.

Finally, there were few limits on the power to tax in 1790. The federal constitution prohibited export duties and required that direct taxes be allocated by population. State constitutions were typically agnostic with regard to taxation, although a few states did ban the poll tax.[15] Beginning in the 1830s, southern states began adopting constitutional provisions that contained uniformity clauses requiring all wealth taxes to be levied at uniform rate and assessment with respect to value.[16] After 1842, states adopted uniformity and universality clauses that produced the general property tax: a tax imposed at a uniform rate on all wealth within the state. Most property taxes today are no longer general, as they apply only to real property wealth.[17]

Between 1842 and 1852 twelve states replaced their existing constitutions as shown in Table 2 (Louisiana replaced its constitution twice). In all but Virginia, the new constitutions placed procedural restrictions on the way state and local governments could issue debt and required legislatures to enact general incorporation laws. Why did eleven states adopt both institutions at the same time? No state adopted one and not the other. The answer lies in the nature of infrastructure investment in democratic republics.

II. Legislative Choice and Infrastructure Investment

American state governments in the early nineteenth century faced the problem of promoting economic development through large-scale public investments, such as a canal, that required a state to spend money unequally across geographic areas. Legislatures are geographically oriented and their electoral incentives force legislators to be concerned about the incidence of state policies on their district. Although statewide interests matter, it is primarily the effects of policies on their district that determine whether a given legislator favors a policy.

Consider an expenditure policy to provide a public good, $\pi(x) = (P_1(x), P_2(x), \ldots, P_n(x))$ where n is the number of districts, $\pi(x)$ is a public policy, and the $P_i(x)$ represent the incidence of the policy on district i.[18] The various functions are written as a function of x, which can be considered as a scale or scope factor that reflects the size of the policy.

$P_i(x)$ can be broken into the benefits, $b_i(x)$, and costs, $c_i(x)$, where $P_i(x) = b_i(x) - c_i(x)$. We assume that the benefits are concave and the costs are convex as a function of x; that is, $b_i' > 0$, $b_i'' < 0$, and $c_i' > 0$ and $c_i'' > 0\ \forall i$.

The total net social benefits for the state is represented as:

$$NB(x) = \sum_i P_i(x) = \sum_i (b_i(x) - c_i(x))$$

The economically efficient policy, x^*, is such that at x^*, $NB' = 0$ and $NB'' < 0$ so that at x^* the marginal net social benefits are zero; i.e., $\sum_i (b_i'(x) - c_i'(x)) = 0$.

The project is financed through taxes. Let $C = \sum_i c_i(x)$ be the total costs of the project, and let T be the total taxes need to finance the project. We assume a balanced budget constraints, so that T = C. Further, district i's tax share is t_i, so that its tax cost for a particular project is t_iC.

District i's legislator's objective function is $P_i(x) = b_i(x) - t_iC(x)$.[19] Legislators consult only their own objective function, ignoring the effects of the project on other districts, and hence the project's social implications. When choosing between two projects, or between building a particular project and not, each legislator supports the alternative that provides them higher net benefits. Moreover, we assume a convention about indifference: if a legislator's district bears no costs for a project, she votes in favor even if her district receives no benefits.[20] It is clearly costless for such a legislator to do so.

Legislatures are constrained in two ways. First, passage of individual legislation is only possible if a majority of legislators benefit from the proposed legislation.[21] This "majority rule" constraint applies to individual pieces of legislation. Logrolling makes it possible to fund individual projects (as opposed to legislation) that benefit a minority of legislators, as long as the project is paired with enough other projects that a majority of legislators receive positive net benefits from the entire package. For simplicity, the majority rule constraint requires that all of the necessary logrolls be bundled into one bill.

The second constraint applies to all of the legislation passed by the legislature. In aggregate, every individual legislator (district, county, or state) must receive positive net benefits from the sum of all legislation passed, or that geographic unit will "exit." The exit constraint requires, for j projects and i legislative districts that

$$\Sigma P_{ij}(x) > 0 \text{ (summed over j projects, } \forall i \text{)}$$

The exit constraint requires that no district is hurt, on balance, by the aggregate actions of the government.

The threat of exit may seem too dramatic for the day to day operation of a legislature. The constraint certainly did not bind from day to day, however, as it applies to the aggregate of all legislation. The shortest time period it applied to was a legislative session, and longer periods are not unreasonable. But the implicit threat of exit in early 19th century America was very real. New England's Hartford convention threatened secession during the War of 1812. Andrew Jackson's first term ended with the conflict with South Carolina over Nullification hanging in the balance. Secession was not an idle threat: the south left the Union in 1861. At the state level, population movement made the exit constraint bind. Early nineteenth century America had a population on the move, and states adopting unpopular policies with a portion of their citizens could expect to lose people to out migration. A constant factor in the national debate about public land policy was out migration from the east to the west, the desire of eastern states to keep people from moving (and lowering land prices), and the hunger for population in the west (to raise land prices). In 1842 and 1843, Illinois politicians were unwilling to raise taxes to deal with their debt problem because, as then Governor Ford later wrote, "To pay immediately was out of the question. Heavy taxation then would have depopulated the country and the debt would never be paid."[22] Secession from states was not unknown either. Vermont declared its independence from New York during the Revolution, Maine split from Massachusetts in 1820, and West Virginia from Virginia during the Civil War.

Legislatures face both a majority and an exit constraint. They must make simultaneous decisions about the size of the project, the allocation of benefits across districts, and the allocation of tax burdens across districts. Four general solution to the problem can be characterized: normal taxation, benefit taxation, taxless finance, and something for everyone. These categories are not mutually exclusive, nor are they exhaustive, but they give us a framework to discuss the choice set facing state legislatures in the early 19th century.

A. One large project: Normal taxation. Large projects have several relevant characteristics. First, they require a very large expenditure relative to the budget, implying that at most only one or two such projects can be built at once. Second, these projects concentrate the benefits in a small geographic area while spreading the tax costs across the entire state. Legislatures considering a large project already possess a tax structure, that is, a set of tax instruments that allocate tax shares across legislative districts, t_i. By normal taxation we mean an expansion of existing tax revenues using existing tax shares to fund the improvement.[23] This implies that some districts receive large benefits relative to their tax cost: $b_i(x^*) > t_iC(x^*)$; but many districts receive no benefits while bearing their tax cost: $P_i(x) < 0 \ \forall x>0$, since $b_j(x) = 0$ while $t_jC(x) > 0$.

The concentration of benefits in a few districts implies that most districts receive no benefits but bear costs. These districts naturally prefer not to build the project. The majority rule constraint implies that no project is built. The size of the project makes it impossible to find enough logrolling options to compensate districts that do not gain from the large project. Even if it is possible to find a project that benefits a majority of districts, a simple majority fails to meet the exit constraint. In short, it is difficult for government to build a large, expensive, geographically concentrated project through normal taxation.

B. One large project: Benefit taxation. The first result assumed that the financial costs of the project were spread across the state through general taxation. Suppose instead that the project could be financed by a tax scheme, *benefit taxation*, whereby district i's tax share is a function of the benefits it receives from the project.

Let $B(x) = \sum_i b_i(x)$ be the project's total benefits. Define a *benefit taxation scheme* so that $t_i = b_i/B$. Under this tax scheme, districts that receive no benefits from the project also pay no taxes regardless of the project's total cost: $b_i = 0$ implies that $t_i = 0/B = 0$. Districts pay their share in taxes in proportion to the benefits they receive.[24]

As long as the project's total benefits exceed the total costs ($B > C$), each district with positive benefits also has positive net benefits after paying their tax share.[25] Thus, assuming that representatives who are indifferent to the project – including legislators whose districts receive no benefits but also incur no costs – vote in favor of the project, every legislator (weakly) favors the project, so it will pass. In contrast to the case where projects are financed out of general revenue, benefit taxation implies that, even in the case of a large project like the Erie canal, most districts receive no benefits and incur no costs, and so can costlessly support the project.

The widespread use of the property tax provided states with a potential mechanism for creating a benefit tax. If the value of transportation improvements is capitalized in land values, and property taxes are used to fund construction, it may be possible for every district to, at worst, be indifferent to the large project. The use of benefit taxation to finance a single large project simultaneously satisfies the majority and exit constraints. The central problem with a single large project is the inability to balance off the losses to districts that do not benefit from the project because the state is unable to afford multiple large projects. Benefit taxation solves that problem.[26]

C. One large project: Taxless finance. There are several alternatives to financing a project through taxes. We consider three financing schemes that share a common element: building the project does not entail raising current taxes, thus *taxless finance*. We might also call these schemes contingent tax finance, since two variants involve the assumption of a contingent liability by taxpayers.

Suppose the canal is expected to generate a stream of toll revenues, but require state assistance in the form of eminent domain, limited liability, or some other privilege.[27] Private entrepreneurs may be willing to privately finance the project in exchange for a corporate charter. The value of the charter could be enhanced by granting the owners exclusive rights or other privileges. In return for the grant of special privilege, the state acquires an ownership interest in the private company.[28] Public grants of monopoly were common in 18th and early 19th century Britain and the United States, as was state ownership of private company stock. This scheme requires only that some districts benefit from the charter, as no additional taxes are raised.[29]

Of course, the first variant of taxless finance requires that private owners raise capital themselves. In antebellum America it was difficult to use this mechanism alone to finance large transportation projects.[30] A second variant of taxless finance used the good faith and credit of the state to secure operating capital by issuing bonds. The state then invested the borrowed funds in the private corporation by purchasing stock. Expected dividends from the state's investment would cover the state's interests costs. Taxpayer's liability in this case was contingent on the success of the project. If it succeeded, the state received a steady flow of dividends, net of interest costs, and taxpayers paid lower taxes. If it failed, the state and its taxpayers would assume the debt service.[31]

Sometimes projects were so large that private entrepreneurs could not be found. A third variant of taxless finance was for a state to construct and operate the enterprise itself. The state borrowed sufficient funds to cover both building the project and the interest charges in the early years of the project before revenues were expected to materialize. Of course, borrowing funds left taxpayers with a contingent liability – if *ex post* the project failed to generate sufficient revenues to cover the costs of the bonds, taxpayers had to pay the difference in proportion to their tax share.[32]

Taxless finance works politically because of the implicit benefit received by all districts. Current taxes may not rise, but taxpayers assume a contingent liability:

$$CL_i = t_i C(x)(1-s)$$

where s is the *ex ante* probability of project success. If the project fails *ex post*, CL_i will be positive for all districts. If a proposed improvement only generates benefits to some districts through improvements in lower transportation costs or better financial services, then $P_i(x)$ is negative for a the majority of districts who receive no benefits. A taxless finance scheme that does not provide benefits to all districts, *ex ante*, will have a negative expected value to a majority of districts and will not be supported.

$$P_i(x) = b_i(x) - t_i C(x)(1-s) < 0 \quad (\forall i \text{ where } b_i(x) = 0)$$

Taxless finance doesn't work that way, however. All three variants propose that the project will return money to the state treasury, either in the form of dividends on the state's investment in the private corporation or in the form of toll revenues or profits. If M represents the potential profit of the enterprise to the state, then the calculation of net benefits for each district becomes:

$$P_i(x) = b_i(x) + t_i M(s) - t_i C(x)(1-s)$$

That is, each district can expect its taxes to go down by t_iM if the project is successful. The critical issue for districts who do not benefit directly from the canal, districts where $b_i(x) = 0$, is whether $t_iM(s) >< t_iC(x)(1\text{-}s)$. Taxless finance works if it promises every district that its taxes will be lower if the project succeeds.[33]

As with benefit taxation, taxless finance can simultaneously satisfy the majority constraint and the exit constraint.

D. Many projects: Something for Everyone.

We have placed emphasis on single large projects because of their relevance for state investments in the 1830s. But it was also possible to promote transportation and financial investments through small projects. Consider a legislature facing decisions over a range of projects, each with concentrated local benefits and paid for through general taxation.[34] For simplicity, we assume that each legislator has one possible project; and that each project benefits her district and her district alone.[35] Moreover, assume that each project is small relative to the budget, so that there is no problem financing many or all at the same time. Suppose that the benefits to each district from its project are b; that these are identical across districts, as are all the costs, c; and that each district pays an equal tax share of 1/n of the total costs.[36]

Legislators now consider bundles of projects. Given each legislator's preferences, the ideal bundle of projects is simple to characterize. Each legislator receives positive benefits only if the project for her district is built. Building any or all other projects merely raises the district's taxes. So each legislator's ideal policy is to build her project alone. Unfortunately any legislation of that type will be defeated by a vote of n-1 to 1, with only the legislator benefitting voting in favor. Legislators therefore have an incentive to create bundles of projects though logrolling.

When a majority party exists, it might finance expenditures in its districts but not in those of their opponents. Suppose that the majority party holds m seats in the legislature, where $(n+1)/2 < m < n$; and the minority party holds n-m seats. If each legislator has a project to build in her district and the majority party finances only those in districts they represent, the total number of projects is m; the net benefits to each district represented by the majority are $b - (m/n)c$; and the net benefits to each district represented by the minority party are $-(m/n)c$. The problem with partisan coalitions is the exit constraint. A majority party that votes beneficial projects only to the districts it controls, necessarily imposes net costs on the districts it does not control, violating the exit constraint.

As an alternative, the legislature might choose a policy of universalism, or *something for everyone.* The legislature builds a project in each district. [37] The intuition is simple. Suppose that spending is allocated among districts by some formula or rule of thumb (such as equal grants per capita). Grant share to individual districts are given by g_i

$$P_i(x) = b_i(g_i x) - t_i C(x)$$

Further suppose that at an arbitrarily small amount of spending, ε, produces net benefits for all districts:

$$P_i(\varepsilon) = b_i(g_i \varepsilon) - t_i C(\varepsilon) > 0 \quad \forall i$$

Now the only problem facing the legislature is how much to spend. If the exit constraint is binding, expenditures will increase until the first district receives no net benefits. If the exit constraint can be eased by logrolling, then expenditures can increase further.

A simple virtue of something for everyone policies is that the same formula can often be used to allocate taxation and expenditures. For example, states that rely on poll taxes for some share of the revenue could allocate expenditures by the share of poll taxes paid in the state. Or poll taxes could be raised to finance education and education funds could be divided by counties according to share of the states's school age children living in each county. The t_i and g_i needn't be the same. They only need to be known.

E. Legislative Choices

States can finance investments in transportation and finance in four ways, and Table 3 shows the predictions of the model about which methods state governments will use. Building a canal or bank with limited geographic benefits was politically infeasible using normal taxation. Too many geographic interests obtained nothing except the prospect of higher taxes. Building financial and transportation infrastructure with something for everyone policies was politically feasible, but fiscally impossible. New York could not afford to build an Erie Canal to every county. Something for everyone policies required equal, or close to equal, allocation of funds to every district.

A large canal or bank investment could be made with benefit taxation or taxless finance. Benefit taxation worked very differently from taxless finance, however. Benefit taxation required that taxes be raised simultaneously with the onset of construction and borrowing. Taxless finance allowed taxpayers to assume a contingent tax liability, one that would only be assumed in the event the project failed. Both benefit taxation and taxless finance held out the promise of significant benefits.[38] We turn next to the policies used by states to finance investment in the 1830s.

III. State Experience with Banks and Internal Improvement Investments

Although the history of federal banking and transportation policy is better known, in the early 19th century state investments were more important than the federal investments in both areas. The federal government chartered the First and Second Banks of the United States (and a handful of banks in the District of Columbia), the latter with a capital of $35 million dollars. By 1836, the states had chartered over 600 banks, with an authorized capital of $480 million and paid in capital of almost $250. Federal investment in banks was minimal, while states invested roughly $80 million.[39] Between 1790 and 1860, the federal government spent $54 million on transportation projects, the lion's share going to rivers and harbor improvements and aids to navigation. Over the same period state and local governments spent over $425 million. Federal government policy was not trivial before the Civil War, but state governments, by any measure, played a much larger role in the promotion of financial and transportation investment and development.[40]

By 1830, states were able to draw on 40 years of experience with bank investments. They had reasonable expectations that "M" was large and positive, and that the probability of a successful investment, "s," was close to one. Canal investments in New York and Ohio had also proven profitable. Governor Ford of Illinois, spoke directly to the *ex ante* expectations of the Illinois politicians when he explained how the state got itself into difficulties in his message to the legislature of December 8, 1842 "No scheme was so extravagant as not to appear plausible to some. The most wild expectations were made of the advantages of a system of internal improvements, of the resources of the State to meet all expenditures, and of our final ability to pay all indebtedness without taxation. Mere possibilities appeared to be highly probable, and probabilities wore the livery of certainty itself."[41]

By 1841, $198 million of state debt issued to finance investments in canals, railroads, and banks was outstanding. Table 3 breaks down the debt by the method of finance involved in the project. Normal taxation was rarely used to finance investments in transportation and banking. No substantial state investments were financed by normal taxation. Of course, normal operations of state and local governments included the provision of transportation services, constructing, operating, and maintaining bridges and roads. But none of these activities were large by comparison to a project like the Erie Canal.

No substantial state investments were allocated within states on the basis of something for everyone type formulas. Education was the one area where subsidies were regularly allocated on the basis of population or enrolled students. Some state road money was allocated among counties on the basis of population or land area, but the amounts were small. Counties were capable of building roads, such as they were in the early 19th century, but possessed neither the fiscal capacity, administrative ability, nor geographic scope to build canals and railroads. Only state governments had the power to charter banks. It was impractical to allocate internal improvement funds between counties by formula, despite the pressure to spread spending throughout the state.

Several states adopted financial plans implementing benefit taxation. The earliest example of this was the compromise reached in New York to finance the Erie canal. Opposition to the canal came, rationally, from farmers on the Hudson and Long Island who faced competition from new lands in western New York, and somewhat irrationally from New York City commercial interests, who feared higher state taxation. New York did not expect the Erie Canal to be as successful as it was, and the bill authorizing the canal set aside three additional sources of revenue for the canal fund. These were a share of the auction duties collected in New

York City, revenues from the salt tax levied on the production of salt in (primarily) western New York, and a special property tax surcharge. The surcharge was to be levied on all counties bordering on the canal (the initial bill only authorized construction on the middle section of the route). The "canal tax" provision was they key element in the compromise between canal supporters and opponents.[42] As it happened, the canal tax was never levied, because the Erie returned unexpected revenues to the canal fund and eventually to the general fund of the state. In fact, New York was able to suspend its state property tax entirely in the 1820s.

The canal tax coordinated the geographic benefits of the canal with the geographic costs of financing the canal debt. Similar arrangements were reached in Ohio, Indiana, and Illinois. As in New York, the chief opposition to canals was geographic, opposition came from those areas through which the proposed canals would not pass. In each of these states prior to the authorization of canal construction, land was classified into quality grades and taxed on a per acre basis equally within each classification. In Ohio in 1828, in Indiana in 1836, and Illinois in 1837 and 1839, the key compromise between canal opponents and supporters was the adoption of *ad valorem* taxation. In each state the passage of a canal bill was tied to the restructuring of state property taxation in order to shift more of the burden of financing canal debt onto those counties whose land values would, presumably, rise with the construction of the canals.[43] *Ad valorem* taxation of land only partially mollified geographic interests. In 1828, Ohio built two canals simultaneously as a concession to geographic interests in the eastern and western parts of the state. Indiana began work simultaneously on seven projects, while Illinois started work on six. Expenditures made under these arrangements in New York, Ohio, Indiana, and Illinois came to $53 million dollars between 1817 and 1841.[44]

Taxless finance required little or no immediate financial commitment from the states. Southern states often lent support to banks by purchasing bank stock or by making outright loans to banks.[45] For example, Mississippi chartered a number of banks in the 1830s (prior to that Mississippi had only one bank in which the state had a financial interest). The state assisted two of the largest banks, subscribing to $2 million in stock of the Planter's Bank in 1830, and loaning $5 million in state bonds to the Union Bank in 1838. The charters for both banks stipulated the banks would service the bonds.[46] While the state was ultimately liable for its debts, Mississippi anticipated the banks would pay dividends to the state, that other taxes would be lower, and that the state would never pay a penny to service its bonds. The state had, after all, been receiving dividends on its bank holdings since the early 1820s.

Although details varied, similar arrangements were made banks in Florida, Mississippi, Alabama, Louisiana, and Arkansas. State investments in banks in the five states totaled $53 million in the 1820s and 1830s.[47] While there were serious sectional debates within states about the establishment of banks, there was no sectional debate over the allocation of taxation. The states expected that the state bonds issued to these banks would never burden the taxpayers and that bank stock would pay a net dividend. This contributed to the eventual repudiation of debts in Florida, Mississippi, Louisiana, and Arkansas.

Taxless finance played an important role in transportation finance as well. The success of the Erie Canal and the Ohio canals led several states to anticipate that they could finance canal and bank investment without raising taxes. This involved the costly requirement of meeting interest payments in the first years of construction out of borrowed funds (or, in some cases, premiums on bond sales), thus increasing the total amount of debt needed to finance a project.

But the policy obviated the politically costly need to raise current taxes. Canal and railroad investment in New York (in the 1830s), Maryland, Pennsylvania, and Massachusetts all proceeded without a concurrent increase in state taxation. State expenditures financed in this manner in these states amounted to $80 million between the late 1820s and the early 1840s.[48]

States found other ways to promote investment without raising taxes. In New Jersey, the Camden and Amboy Railroad gave the state a substantial share of stock in the company in return for the monopoly right to haul freight and passengers between New York and Philadelphia. Dividends on Camden and Amboy stock and railroad taxes made up over half of state revenues from the 1840s to the 1870s. Georgia and Alabama chartered state banks, and profits from their bank holdings enabled both states to eliminate their property taxes in the early 1830s. Massachusetts levied a tax on bank capital in the 1820s. The tax provided more than half of state revenues from the late 1820s up to the Civil War.[49]

This brief review of state financial practices encompasses $183 million in state expenditure for banks, canals, and railroads, of which $13 million was for bonds issued in New York and Ohio in the 1810s and 1820s that had been repaid by the early 1830s. It accounts for $170 million of the $198 million of state debt outstanding in 1841.[50] States either addressed the problem of competing geographic interests by tailoring their system of taxation to coordinate benefits and taxes or they made inter-sectional disputes moot by avoiding the need to raise taxes at all. Voters and legislators were easily convinced that building canals and banks without raising taxes was a good idea.

IV. Eliminating Taxless Finance

In October of 1839 a financial panic swept the country, leading to suspension of specie payments in banks throughout the south and west, declining prices and land values, and a general economic depression that lasted into 1843. By mid-1840, southern states that had issued bonds on behalf of banks – Florida, Alabama, Mississippi, Louisiana, and Arkansas – found themselves besieged by bond holders who wanted the states to redeem their solemn pledge to honor the bonds with their full faith and credit. In the northwestern states – Indiana, Illinois, and Michigan – construction on state canal and railroad projects came to halt in late 1839. With construction at a stand still, land values began falling. It was clear by mid-1840 that these states could not service their debts from property taxes. In January of 1841, Indiana and Florida defaulted, followed shortly by other states, culminating in Pennsylvania's default in 1842.

There is no doubt about why states defaulted. As Table 1 shows, nine of the ten states with the largest per capita debts defaulted, and Alabama, Ohio, and New York narrowly avoided default. State legislatures throughout the country were asking "how did we get in to this mess?" and "how can we prevent this from happening again?" Although conditions in every state were unique, the answers given in the 1840s shared a common theme. States got into trouble because they pursued taxless finance and the way to prevent this from happening again was to take taxless finance off the table as an alternative way to finance infrastructure investment. This section lays out why eliminating taxless finance required procedural debt limitations, general incorporation, and general property taxation. The following sections examine what voters and politicians said in the 1840s when they revised their constitutions and examine an alternative historical explanation.

Prohibiting government debt altogether might have been the simplest reaction to the default crisis. Goodrich (1950) termed the 1840s wave of constitutional restrictions on state debt issue the "revulsion against internal improvements." But he noted that the apparent revulsion did not stop states, and certainly not local governments, from continuing to pursue internal improvements in the 1850s and after the Civil War. Debt restrictions were procedural, not absolute. States did not close off the possibility of financing internal improvement projects by benefit taxation, they eliminated taxless finance. To understand why this was, and what the states were doing, we need to examine the constitutional changes in more detail. Table 4 shows whether a state adopted a change in its constitution that regulated debt issue, corporation policy, or taxation. Tables 5, 6, and 7 provide details for debt restrictions, corporation clauses, and taxation respectively.

With the exception the ban on the issue of debt for internal improvements in Indiana, Ohio, and Michigan, states typically adopted procedural restrictions on debt issue. The first complete clause was Article 4, Section 6, Part 4 of the New Jersey Constitution of 1844:[51]

> The legislature shall not, in any manner, create any debt or debts, liability or liabilities, of the State which shall, singly or in the aggregate with any previous debts or liabilities, at any time exceed one hundred thousand dollars, except for purposes of war, or to repel invasion, or to suppress insurrection, unless the same shall be authorized by a law for some single object or work, to be distinctly specified therein; which law shall provide the ways and means, exclusive of loans, to pay the interest of such debt or liability as it falls due, and also to pay and discharge the principal of such debt or liability within thirty five years from the time of the contracting thereof, and shall be irrepealable until such debt or liability, and the interest thereon, are fully paid and discharged; and no such law shall take effect until it shall, at a general election, have been submitted to the people, and have received the sanction of a majority of all the votes cast for and against it, at such election; and all money to be raised by the authority of such law shall be applied only to the specific object stated therein, and to the payment of the debt thereby created. This section shall not be construed to refer to any money, that has been, or may be, deposited with this State by the government of the United States.

The New Jersey restrictions were repeated, with alterations, in other states. New Jersey limited "casual" debt to $100,000. Issue of more debt than that required legislation that specified the purpose of the debt, and the "ways and means," i.e. the tax revenues, to service the debt within thirty five years (such legislation was "irrepealable"). The legislation authorizing the debt issue could not take effect until it was approved by a majority of the voters in a general election. Limits on casual debt varied from a high of $1,000,000 in New York to a low of $50,000 in Rhode Island, but the casual debt limit was only a limit on the debt the legislature could approve without going to the voters. The key element in the procedural restrictions was the requirement that the "ways and means" shall be provided. Legislation authorizing the bond issue had to include new taxes sufficient to service the debt, and the new taxes had to be approved by the voters. In New York and Iowa, "ways and means" was replaced with "direct annual tax," i.e. a property tax. In most states the property tax would be the tax used to provide revenues.

Only Indiana absolutely prohibited the issue of new debt (Table 5).[52] The door was left open for any state that wanted to borrow money to do so, as long as a tax increase sufficient to service the debt was approved by the voters before the debt was created. In this way, internal improvement spending was not prohibited, but it had to be financed by benefit taxation.[53]

By themselves, procedural restrictions could and did limit state debt issue (see below). But procedural restrictions alone could not close the door on taxless finance. To do that required three additional restrictions on state governments. First, states had to close off indirect ways of obligating the state or becoming entangled in the affairs of corporations. Constitutions in every state but Rhode Island and Louisiana required that "nor shall the credit of the State ever be given, or loaned, in aid of any person, association, or corporation." (Table 6). The prohibition was usually matched with "nor shall the State hereafter become a stockholder in any corporation or association." (both clauses from Indiana, 1851, Article 11, section 12.) Only New York, New Jersey, and Kentucky failed to prohibit stock ownership (Table 6).[54] These restrictions made it impossible for states to hold stock in or invest in banks or canals.

Second, the states had to close off the possibility that a select group would acquire special corporate privileges in exchange for payments to the state treasury (ala the Camden and Amboy railroad). Constitutional changes in the 1840s tied the requirement that legislatures pass general incorporation acts, with a restriction, and in some cases prohibition, on special incorporation. As Table 6 shows, most, though not all states, required general incorporation and prohibited special incorporation. In some states special incorporation was prohibited "except for municipal purposes, and in cases where in the judgment of the Legislature, the objects of the corporation cannot be attained under general laws." (Wisconsin, 1848, Article 11, section 1). In others special incorporation was explicitly prohibited: "The General Assembly shall pass no special act conferring corporate powers." (Ohio, 1851, Article 13, section 1) In others the prohibition on special corporations was implicit.[55] Banks were inextricably linked with corporations in the constitutions. While some states banned banks outright, most states required that banks be incorporated under general laws approved by the voters (free banking).

Finally, states had to close off the option of financing internal improvements through special tax arrangements.[56] States began requiring that: "Taxation shall be equal and uniform throughout the commonwealth, and all property other than slaves shall be taxed in proportion to its value, which shall be ascertained in such manner as may be prescribed by law." (Virginia, 1850, Article 4, section 23, of course, slaves were not an issue in northern states). These clauses required *ad valorem* taxation for all property (land and whatever wealth was also taxed), with equal tax rates for all types of property, assessed uniformly throughout the state. The New York scheme of levying a special canal tax in the canal counties would not have been constitutional under this type of "general" property tax. The new tax restrictions, in combination with the need to specify in advance what taxes would be collected for debt service, effectively required a majority of voters to gain from any proposed investment to obtain majority support.

V. Systematic Corruption and Constitutional Solutions:

Americans in inherited a strain of political thought about the proper role and structure of government now called "the republican synthesis." The main ideas can be traced back through 16th century French historians and continental philosophers to Aristotle and Polybius, but their particular form took shape in the struggles between Crown and Parliament in early 17th century England. The economic part of the core argument was the protection of personal liberty as manifested in the right to hold and enjoy real property (and, by extension, to other aspects of human behavior that today we would call freedom). The central political argument was that these rights were best protected by system of mixed government of three estates -- the king, the aristocracy, and the people -- where political participation was a right and responsibility of those propertied individuals with an interest in maintaining order and stability. Deviations from this "constitutional" structure were, by definition, corruption. In the early 18th century, particularly under the administration of Walpole, the "true Whig" opposition in Britain identified three main sources of corruption: the influence of the King in the House of Commons through the use of executive patronage, the existence of a large and rapidly growing national debt that gave financial creditors and intermediaries undue influence over political decisions, and the pervasive and corrosive effects of party and faction.[57]

American perception that British government had become corrupted was not only a fundamental cause of the American revolution (Bailyn), but fear of corruption verging on paranoia, became a dominant feature of American politics in the early 19th century. "In the process, the rhetoric of corruption emerged as the common grammar of politics, so overwhelming that it became difficult to discuss public questions in any other language. The age of Jefferson bequeathed to the United States an obsession with corruption that still deeply colors the way we think about politics."[58] While the 19th conception of corruption contained within it the venal corruption of politicians that concern economists and political scientists today, (Shleifer and Vishny define corruption "as the sale by government officials of government property for personal gain,")[59] corruption was a much larger concept embracing the entire structure of political relations:

> 'Corruption' was a central term in neoclassical discourse, a term that linked a number of specific threats into a single process of decay. 'Corruption' might refer to bribery, embezzlement, or other private use of public office, much as it does today. For seventeenth- and eighteenth-century thinkers, though, the word most often brought to mind a fuller, more coherent, and more dreadful image of a spreading rot. A frequent metaphor compared corruption to organic cancer, eating at the vitals of the body politic and working a progressive dissolution.[60]

This was the background for Madison, Hamilton, and Jay's *Federalist Papers* defense of the government structure proposed in the national constitution. They were already passing from an understanding of individual virtue as sacrificing personal interest to the public good towards individual virtue as the pursuit of individual goals within the social framework.[61] Cutting the classical connection of the virtue of individuals with the virtues of the government, meant necessarily relying more on the systematic components of government to promote the public good. As a result, discussions of corruption were often not about individuals, but about systems:

> "Autonomy and virtue, [were assumed to] rest on material as well as moral prerequisites," both of which were thought to be endangered by the instruments of oligarchic rule: standing armies, patronage, and public debts. Condemnations of corruption were, *in largest part, denunciations of this system*: condemnations of the multiple dependencies that it forged, of its misuse of public treasure, of the degeneration of the balanced constitution, of the killing enervation and quiescence fostered by the unearned luxury with which it favored some at the expense of the impoverishment of the many... the system corrupted the gainers and the losers, both of whom might be "demoralized by an exclusive concern with private or group satisfactions." [62]

These ideas were critical in the 1840s. States had to come to grips with whether their current fiscal crises were the result of systematic decisions made by state governments or whether they were the result of corrupt individuals manipulating the system for their own benefit. Did the crises result from bad institutions or from bad individuals? If it was bad institutions, then the appropriate remedy was to alter the institutions. If it was bad individuals, then the appropriate response was to vote the rascals out.[63]

States, in general, decided that bad institutions were the cause of the crisis. The conclusion stemmed from the constraints placed on the legislative process by the exit constraint. Although internal improvement legislation was often very controversial, it tended to pass by consensus, rather than as the result of partisan majoritarian politics. This foreclosed the option, *ex post,* of blaming a party or faction for the failure of a canal or bank.[64] Indiana provides an example. The Indiana legislature authorized the issue of $10,000,000 in 5 percent bonds when its state budget was only $50,000 a year. Under a binding exit constraint, we should see that substantial consensus was required before a canal bill could pass. The two main canals in Indiana, the Whitewater in the southeast corner of the state and the Wabash and Erie which ran from the southeast corner of the state to the north and then northeast, were the poles around which the canal interests built their majority. As Indiana historian Logan Esarey points out: "As finally organized, this [canal] party controlled every county in the State but seven – Harrison, Posey, Crawford, Switzerland, Hendricks, Perry, and Spencer; and six of these were on the Ohio. The total voting strength of these [anti-canal] counties was always less than ten out of a body of eighty members."[65] The internal improvement counties (counties through which a proposed canal, railroad, or turnpike would pass) possessed a clear majority of the votes in the Senate and House as early as 1833, yet less than ten of eighty legislators were able to hold up a canal bill for three years. Why? The reason appears to be the exit constraint. Indiana did not proceed with its canal system until the legislature reached a rough consensus that included every region. What brought the southern counties to support the canal system was the adoption of *ad valorem* taxation in 1836. That is, the adoption of benefit taxation was critical to reaching the political consensus necessary to begin construction.[66]

Since Indiana had passed internal improvement legislation by consensus, it was difficult, *ex post*, for one geographic group to be blamed for the decision to build the canals. Indiana defaulted in January of 1841, and even though there were calls for a constitutional convention in the mid-1840s, generally supported by the Democrats and opposed by the Whigs, a constitutional convention was not called until 1850 when state finances were back on a sound footing. The voters sent almost equal numbers of Democrat and Whig delegates to the convention.

The convention regarded its main task as fixing the systematic flaws in Indiana government that produced the crisis:

> Sir, we have just passed a tremendous crisis. Now is the time for us to look around and reflect. If we learn no experience from the past, if we now fail, in this period of calmness, to place upon ourselves the restrictions which will in all time to come save us from similar wide spread ruin and calamity, I hold that this Convention has been called in vain.
>
> Look, sir, to other States. State after State has called Conventions to reform their

> Constitutions. All around us Constitutional Conventions are in sessions, or just about to be in session. If there is a single cause more than any other, which has produced this general movement, it is the desire, on the part of the people, to cut themselves off from themselves and their representatives this power of creating public debt.[67]

Mr. Read and a majority of his fellow delegates ultimately voted to prohibit internal improvement borrowing in Indiana completely, the only state to do so.

Surprisingly, there was little in the way of partisan finger pointing over the origins of the crisis. Convention delegates clearly regarded the decisions made in 1836 as the result of a democratic system rather than malign individuals. Delegates from *both* parties rose and denounced the policies the state had followed in 1836. So much so that Judge Kilgore, who spoke against the absolute prohibition on state debt, remarked that "I appear to be the last survivor of all the members of the Legislature of 1836 who voted for that bill. I know there are many still living, they seem to have been afflicted – perhaps in judgement for their political sins – with a loss of their memories. [Laughter]."[68] Kilgore went on to articulate not only an explanation of what happened in 1836, but how it could be prevented in the future:

> If, with the light of the past to guide them, with the heavy burthens of the present to remind them of past errors, the people coolly and deliberately decide at the ballot-boxes to again borrow money, I shall aid to place no Constitutional barriers in their way to prohibit them from carrying out their will; *provided,* sir, that at the time they give the Legislature authority to contract a debt they provide by direct taxation for the payment of the interest, and the canceling of the principal, within twenty-five years. Right here, sir, and nowhere's else, was the great error committed by the people and their representatives in 1836. Gentlemen may confine themselves to the simple assertion that the people of that day were mad; I shall not deny it; they were mad, and very mad; but, Mr. President, had a provision been made before the public debt was created that a direct tax must be levied, high enough to pay the interest and to wipe out the whole debt in eighteen or twenty-five years, all would have been comparatively well. A provision of this kind, sir, would have brought the people to their right senses, and my word for it, before State Bonds to the amount of four millions of dollars had been sold, they would have risen and denounced the whole system as projected.[69]

Judge Kilgore called for benefit taxation and castigated the perils of taxless finance, and called for a direct tax, which in 1850 meant *ad valorem* property taxation, before any future debt could be issued. Many delegates laid the blame for the mistake of 1836 at the feet of taxless finance; Mr. Smith of Ripley county: "It was represented to the people of that day [1836], by the political leaders, that they might go on with that gigantic system of internal improvements without incurring any additional tax on themselves: in fact, the proposition was made that the State could borrow money to construct these public works, and never have to pay any taxes thereon out of their own pockets – that the debt would pay itself."[70]

The new Indiana constitution required the legislature to pass general incorporation laws and banned special incorporation, but these provisions were so generally accepted that no record of a substantive debate was entered in the *Debates and Proceedings* of the convention. The constitution banned state investment in private corporations. Mr. Morrison of Marion county spoke in support of the ban:

> I shall be found constantly voting against any proposition to connect the interests of the people with the interests of the corporations; for the reason that corporations always labor and scheme for their individual benefit, which is always antagonistic to the interests of the people. The proposition is so plain that it is unnecessary to elucidate by giving examples. Gentlemen have no interests to maintain here which should prevent them from reflecting the will of their constituents upon this subject, and the question narrows itself down to the simple proposition whether the State is to become a partner or a stockholder in any public enterprise – whether taxes shall be laid upon the people to raise capital; and then be appropriated by the State for the purpose of private speculation in any concern where individual interests are always militating against the interests of the State. The individual who stands in such a connection with the State, knows that the State will stand more shaving and peculation, and he will indulge more in this way than he would if he were acting in an individual partnership concern where his partner stands ever actively watching the operations of the concern. The State has been aptly compared to a goose, and according to the saying, he was a fool who did not pluck her. And in view of what we have suffered heretofore, I think it is but the part of prudence that we should provide for the evil to come.[71]

Although Indiana politicians did not use the terms taxless finance and benefit taxation, they used the logic behind the concepts. Their language spoke directly to the evils and dangers of taxless finance. They did not blame the state's fiscal crisis on faction or party, but on the perception that the constitutional organization of the state was "corrupt," in the 19th century sense that it allowed the state to pursue methods of financing state investments in good faith, that in retrospect turned out to be a disaster. The problems they identified were systematic. The remaining question to answer is whether the reforms were the result of consensus, or were they pushed only to promote the agenda of the Democratic Party?

VI. Party Politics

Despite their central importance in the evolution of American economic institutions, there is no general history of state constitutional change in the 1840s. Occasionally one encounters the general notion that the new constitutions were the work of the Democratic Party. In part, this was because the Whigs opposed writing new constitutions in several states: "The adamant, politically costly, and ultimately unsuccessful opposition by Whig leaders to constitutional revision in Maryland, Kentucky, North Carolina, Ohio, and Indiana is one such instance were Whigs undoubtedly suffered from 'to much respectability,' where innate conservatism put them on the losing side of an issue."[72] Carmony's history of Indiana talks about the "Democratic" constitution of 1851. But as we have seen, the constitutional provisions that we are concerned about were not the result of partisan battles between Democrats and Whigs, nor was the convention itself generally a partisan contest.

This does not mean that partisan issues did not intrude into the conventions. In Indiana, Democrats proposed to exclude corporation officers from holding seats in the state legislature was defeated on almost a straight party vote. Part of the reason Whigs were reluctant to hold conventions in some states was the unequal apportionment of legislative representation across districts. In several states, new constitutions adopted more equal apportionment schemes that hurt the Whigs.

But in many states party issues were not important. The New York legislature took up the issue of a constitutional amendment to limit state debt in 1842. The amendment did not pass that year, but ultimately the debate led to a constitutional convention and the New York constitution of 1846. The battle over calling the constitutional was not a party issue. The major split over the convention was within the Democratic party, not between the Democrats and the Whigs.[73] In Louisiana, the state adopted a new constitution in 1845 when the state was controlled by the Whigs, and again in 1851 when the state was controlled by the Democrats. The two constitutions had almost identical provisions with regard to debt restrictions, general incorporations laws, and restrictions on special incorporation. These were simply not party issues. Everywhere the issue was concern about the growing corruption of politicians: “The growing populistic rebellion against the regular parties and the politicians who led them as corrupt, selfish wire pullers was hardly confined to Maryland. It also helped fuel movements to revise and ratify constitutions in Ohio, Indiana, and Kentucky.” “Nonetheless, the constitution seemed so popular, especially its provisions reflecting the rising tide of antipolitician, antiofficeholder sentiment in Indiana and elsewhere...”[74]

Perhaps the most persuasive quantitative evidence on this point can be found in Table 8, which is taken directly from Holt. Holt divided states in the 1840s into three groups: solidly Whig states (Group I), competitive states (Group II), and solidly Democratic states (Group III). The states are listed in the table by the share of the Whig presidential vote in the 1844 election, but the more meaningful measure of Whig or Democratic strength is the average Whig share of the state legislature given in the second column. The first column notes whether the state wrote a new constitution or passed an amendment altering debt limitations or incorporation laws.

If constitutional reforms were partisan Democratic issues, we expect new constitutions to be more prevalent in solidly Democratic states. But only two of the eight solidly Democratic states wrote new constitutions, Illinois and Michigan. They were both states traumatized by the debt crisis. Five of the six states where Democrats and Whigs competed on equal terms adopted new constitutions or amendments. Five of the eleven solidly Whig states adopted new constitutions. States where political parties competed equally were more likely to adopt constitutional changes. States with strong Whig parties were less likely to adopt constitutional changes than competitive states, but much more likely to adopt changes than state with strong Democratic parties. There is no evidence that debt limitations or incorporation laws were the result of Democratic party policies. States where politics were the most competitive, where both parties were most responsive to voter concerns, were the states most likely to adopt new constitutional provisions.

VII. Effects and Implications

If the constitutional changes were important, then they should have large and long lasting effects. This section quantifies the easy to measure effects, and draws implications for several areas of American economic development. Table 9 shows the relationship between total debt in 1841, per capita debt in 1841, whether a state defaulted, whether a state restricted debt, and the change in debt between 1841 and 1880. States that defaulted had, on average, $13 million in total debt and $35 in per capita debt in 1841, while states that did not default had only $4 million in total debt and $4 in per capita debt.[75] States that enacted constitutional restrictions on procedures for issuing debt had $12 million in total debt and $18 in per capita debt, while states that did not restrict debt had only $3 million in total debt and $11 in per capita debt.[76] Between 1841 and 1880, aggregate nominal state debt grew slightly, from $198 million to $236 million. In states that adopted debt restrictions, total debt fell by $5 million per state, while in states that did not adopt debt restrictions total debt rose by $6 million. In states that defaulted, total debt fell by $6 million per state, while in states that did not default rose by $5 million per state. Both constitutional restrictions and default experience had a significant impact on the subsequent borrowing behavior of states.[77] Procedural debt restrictions had a significant effect on the subsequent fiscal behavior of state governments.

The effect of debt restrictions and the general property tax had a profound effect on the structure of state and local governments. In 1840, local government debt was one-eighth of state government debt; in 1902, local government debt was eight times state government debt. In 1840, state government revenues were 75 percent of local government revenues; in 1902 state government revenues were 20 percent of local government revenues.[78] The requirement that governments use benefit taxation (or something approaching it) shifted borrowing and spending to smaller, more homogeneous geographic units. Cities, counties and special districts took the lead in providing basic social infrastructure investments in public utilities (water, sewage gas, and electric), public health, and education. In aggregate these investments were enormous, but their scale was well suited for local governments. As Troesken [1994] shows, America was successful at providing critical urban infrastructure in the late 19th century, and an important element in how well it did that was the relationship between state and local governments.

Constitutional changes played a role in the decentralization of 19th century American government, but how much of the change is due to changing constitutional provisions still remains to be determined.[79]

With respect to corporations we cannot compare numbers in the 1830s to the 1880s, as there are no counts of corporations, reliable or otherwise, until the IRS began collecting statistics in 1916. But there are some illustrative numbers on the explosion of corporations in the United States. Lamoreaux and Rosenthal document that between 1807 and 1867, there were only 642 corporations chartered in France. While in New England alone, there were 3,200 corporations chartered between 1800 and 1843 and 3,500 between 1844 and 1862. In 1920 there were 314,000 corporations operating within the United States.[80] We do know that the adoption of a free banking law, a general incorporation law for banks, usually resulted in a substantial increase in the number of banks. So, for example, when New York adopted it free banking law in 1838, 93 free banks were created in a state with only 95 banks on January 1, 1837. Similar increases occurred in Michigan, Indiana, and Ohio.[81]

Lamoreaux and Rosenthal compare the development of corporate policy in the United States and France in light of the recent debate on the importance of legal origins and the apparent superiority of common law systems over civil law systems in the promotion of corporate development. What they find is no surprise in light of the history presented here. Despite a few landmark Supreme Court decisions, corporate law in the United States is a state, not a national, matter. In the 1840s, states deliberately altered the way they chartered corporations to encourage entry and to limit flexibility in corporate form. The fact that “Business people in the United States had much less ability than their French counterparts to modify the basic organizational forms to meet their needs" [p. 14] is not surprising. General incorporation acts were intended to limit all corporations to the same rights and governance structures. Special corporations and flexible charter privileges were a source of corruption. Although strict corporate forms limited flexibility, it increased transparency, and it certainly encouraged entry.

VIII. Conclusions

The Constitution and Bill of Rights of the United States provided an invaluable framework supporting American economic development in the 19th century. Textual change in the national constitution is glacial and substantive change occurs through judicial reinterpretation.[82] It would be a mistake, however, to assume that only the experience of the national government and the national constitution can teach us relevant lessons about economic development. Most of the features of modern economic institutions associated with successful economic development – legal origins and legal systems, the form of corporate organization and governance, and the presence of hard budget constraints – were areas of American institutional development controlled by the state, *not national,* governments. States continuously revise and change their constitutions, and many of the changes are conscious efforts to shape economic institutions. This is a marvelously rich laboratory of social experience.

In the early 19th century, the adoption of widespread suffrage and democratic forms of government gave voice to a popular mandate for government promotion of transportation and finance. States actively intervened in the economy to promote banks, canals, and later railroads. Their development schemes ranged from the conservative and prudential to the wildy naive and improvident. At the time, contemporaries worried that democratically elected governments would not make intelligent decisions about development policy. The internal improvement boom and the default crisis that followed gave substance to these concerns. There were problems with venal corruption, but the primary concern of the constitutional conventions that met in the 1840s and 1850s was not that human beings were corruptible. Instead, they saw that the very nature of the democratic process made certain ways of doing things, taxless finance in particular, appear very attractive *ex ante* to policy makers. Their logic is formalized here in a simple political economy model. The model does a good job of explaining how states financed internal improvements in the 1820s and 1830s.

States did not respond to the fiscal crisis by prohibiting government borrowing, banning investment in canals, permanently revoking bank charters, or instituting new and stricter penalties for officials who abused their offices. States wanted to provide financial and transportation infrastructure. They believed, strongly and actively, that the impartial and effective provision of these services was exactly the kind of thing that a good government should do. But they did not want infrastructure investment or corporate chartering to distort how the political system worked. So they changed the rules. Their solutions were indirect. Rather than making it illegal for legislators to profit from the sale of special corporate charters, they required strict free access to the corporate form, guaranteeing free entry into most lines of business and reducing the rents available to politicians from manipulating chartering. Rather than banning public provision of canals, railroads, or banks, they required that voters approve tax increases for the projects before any money was borrowed. This did not eliminate naive and foolish projects, but it significantly raised the *ex ante* cost of getting proposals implemented. Equally important, it did not eliminate the possibility of pursuing good projects.

Americans did not adopt these new institutions because they were descended from British colonists, because America was a common law country, or because of anything in the national Constitution. Ideas and history were important, however. Americans acquired a particular way of thinking about how government should work from their British and revolutionary heritage. When the default crisis broke in 1841, they came face to face with evidence that the system was not working they way they hoped it would. Constitution writers throughout the country drew on a common experience and implemented a set of technical changes in the way governments interacted with the economy. They changes were significant, but small, alterations in institutions. Because the changes were relatively small, they were politically viable. Because the changes altered the underlying costs and benefits facing political decision makers, they had real effects on government policy. These institutions did help the American economy grow and develop. There are examples in American history that developed economies can learn from, to see what works, how it works, and how governments can be convinced that it is in their interest to do what works.

ENDNOTES

1.The specific institutions of transparent and secure corporate forms and hard budget constraints for governments is the subject of an active and growing literature in the empirical study of economic growth. The general importance of institutions is the subject of Rodrik, Subramanian and Trebbi, 2002; Acemoglu, Johnson, and Robinson [2001, 2002], Berkowitz, Pistor, and Richard [2003], Djankov, La Porta, Lopez-de-Silanes, and Shleifer [2003], and Mahoney [2001]. One group of papers examines the origins of legal systems: La Porta, Lopez-de-Silanes, Shleifer, and Vishny [1997, 1998, 1999, and 2000] and Glaeser and Shleifer [2002]. Another group focuses on connections between legal systems, financial development, and economic growth: Beck and Levine [2003], Beck, Demirguc-Kunt, and Levine [2003], and Levine, Loayza, and Beck [2000].

The importance of hard budget constraints for governments is discussed in Qian and Weingast [1997], Inman [2003], and Rodden and Eskeland [2003], and de Figueiredo and Weingast [2003]. Inman uses the federal government's unwillingness to come to the aid of states in the 1840's default crisis as critical episode in the development of hard budget constraints in the United States. This is a good example of the principle, but there is no evidence that states ever thought the federal government would bail them out. Of course, the states would not have turned down a hand out in 1841.

There is a large and venerable economics literature on constitutions. For quantitative studies see Persson and Tabellini [2003]. For the older tradition see Buchanan [1991], Cooter [2000], and Mueller [1996]. Finally, there is a growing interest in corruption and the importance of trust and social capital. See Knack and Keifer [1997], Shleifer and Vishny [1997], Rose-Ackerman [1978], Klitgaard [1988], Glaeser and Shleifer [2003].

2.The national constitution mentions debt in several places, but not in the context of limiting debt or forcing the government to set aside revenues to service debt. The clauses that mention debt are allowing Congress to raise taxes to pay it off: Article I, Section 7; that no state shall make anything but gold and silver legal tender in the payment of debts: Article 1, Section 10; recognizing the validity of debts incurred by the national government before the constitution was written: Article 6; and clarifying the legitimacy of the debt incurred by the government in suppressing "insurrection or rebellion" but clearly repudiating any responsibility, by nation or states, for the debts of the confederate government or debts incurred by stated during the rebellion: Amendment 14. For the history of early state constitutions see Adams [2001], Kruman [1997], and Tarr [1998].

3.In the decade of the 1800s, New York averaged 18 incorporations per year, Ohio 1, Maryland 2, Pennsylvania 6, and New Jersey 4. In the 1830s, New York averaged 57, Ohio 43, Maryland 18, Pennsylvania 38, and New Jersey 18. Evans [1948]. There is a substantial historical and legal literature on American corporations: Davis,1961; Dodd, 1936 and 1954; and Hurst, 1970; Evans, 1948. Also see Handlin and Handlin, 1945; Seavoy, 1982; Maier 1992 and 1993; Lamoreaux, 2004, and Dunlavy, 2004.

4. “The reader does not require to be told, that we have in our country an infinite number of corporations aggregate, which have no concern whatever with affairs of a municipal nature. These associations we not only find scattered throughout every cultivated part of the United States, but so engaged are they in all the varieties of useful pursuit, that we see them directing the concentration of mind and capital to the advancement of religion; to the diffusion of literature, science and the arts; to the prosecution of plans of internal communications and improvement; and to the encouragement and extension of the great interests of commerce, agriculture, and manufactures. There is a great difference in this respect between our own country, and the country from which we have derived a great portion of our laws. What is done in England by combination, unless it be the management of municipal concerns, is most generally done by a combination of individuals, established by mere articles of agreement. On the other hand, what is done here by the co-operation of several persons, is, in the greater number of instances, the result of consolidation effected by an express act or charter of incorporation.” Preface to *A Treatise on the Law of Private Corporations Aggregate*, Joseph K. Angell and Samuel Ames, 1831.
Hurst [1970] put it this way: “In sum, when we began making important use of the corporation for business in the United States from about 1780, there was little relevant legal experience on which to draw. For 100 years, we proceeded to use the corporate instrument on a scale unmatched in England. In that development we built public policy toward the corporation almost wholly out of our own wants and concerns, shaped primarily by our own institutions. The one definite inheritance was the idea that some positive act of the sovereign was necessary to create corporate status. But we gave our own content to that idea.” pp. 8-9.

5.The Camden and Amboy is discussed in Cadman [1949]; the chartering of banks in New York under the Albany Regency in Seavoy [1982] and L. Benson [1961]; the Arkansas bank in Worley [1949 and 1950] ; and the Charles River Bridge Company in Hurst [1970].

6.Maier [1992] discusses corporations in early 19th century Massachusetts: “Although anticharter arguments were frequently stated as if they applied to all corporations without exception, in practice opposition usually settled on some corporations only. Even the Pennsylvania legislators who campaigned against the BNA and the reincorporation of Philadelphia [the city] apparently raised no objections to the charters granted “every day,” as one legislator put it in 1786, to “half a dozen or 20 people for some purpose or another.” Similarly, in 1792 James Sullivan carefully distinguished the incorporation of a bank from that “to build a bridge, or to cut a canal,” which he found unobjectionable. Banks were probably assailed more often than any other kind of corporation. But consider the position of a delegate to the Massachusetts constitutional convention of 1853 who launched a rhetorically powerful attack on corporations “of a business character.” Among corporations “for other purposes,” which were apparently exempted from his criticisms, he included railroads, insurance companies and banks!” pp. 73-4.

7. In the 1820s and 1830s taxes on bank capital or charter fees were over 25 percent of revenues in Connecticut, Delaware, Massachusetts, Pennsylvania, and North Carolina. Wallis, Sylla, and Legler [1994], p. 126. We do not have adequate fiscal data on Alabama and Geogia, but see Brantley [1961] for Alabama and Wallenstein [1987] for Georgia. In a similar way, dividends and transportation taxes on the Camden and Amboy Railroad enabled New Jersey to do away

with its property tax in the 1840s, Cadman [1949].

8.The general problem of promoting enterprise through corporate chartering and the conflicts that could cause with the state's fiscal interest is discussed in Wallis [2003]. For a detailed and explicit example of the problem, see Pennsylvania's considerations over how many banks to charter in Wallis, Sylla, and Legler [1994] and Schwartz [1987].

9.The "free" in free banking refers to entry, not the absence of banking regulation.

10.The first general incorporation act was for manufacturing firms in New York in 1811. For a history of general incorporate law, Evans [1948].

11.The classic history of government involvement in transportation remains Goodrich [1960], which has been supplemented by Larson, [2001].

12.New York, Pennsylvania, and Maryland all chartered private companies to build western transportation routes. All of the private companies failed.

13.Information on state finances in the 1830s and 1840s is available at ICSPR Richard Sylla, John Legler, and John Wallis "Sources and Uses of Funds in State and Local Governments, 1790-1915: [United States]", Data set 1993-05-13.

14.For the history of state defaults see McGrane [1935], Ratchford [1941], and Wallis, Grinath, and Sylla [2001].

15.Maryland and Ohio outlawed the poll tax in their original constitutions. Early state constitutions most often mentioned taxes or taxation in the context of qualifications for electors and legislators or in specifying whether individuals were required to pay taxes to support churches.

16.See Einhorn [2001] for a detailed discussion of constitutional changes in tax rules. Many states, of course, essentially had uniform taxation in practice long before they put it into their constitutions.

17.The general property tax is an elastic concept. It was impossible to tax all wealth, and in the late 19th century economists like Richard Ely advocated reducing the coverage of wealth taxes to a more limited, easily measured asset base like real property. States varied, over time and among themselves, in the coverage of their general property taxes.

18.What follows adapts the models in Shepsle and Weingast [1984] and Weingast, Shepsle, and Johnsen [1981].

19.Each legislator i has an ideal policy of x_i* which solves the problem max $P_i(x)$ and which occurs when the marginal benefits to district i equals the districts costs, i.e., $b_i'(x) = t_iC'(x)$.

20.All voting models require an assumption about what happens when a legislator is indifferent between two alternatives.

21.Given a single dimensional policy choice, such as the choice over the scale of a single project, the majority rule equilibrium is the ideal policy of the median district. Standard results show that, except in very special circumstances, no majority rule equilibrium exists when the legislature chooses the scale of many projects simultaneously. These concepts are defined in Hinich and Munger [1997], Shepsle and Bonchek [1997], and Stewart [2002].

22.For a detailed consideration of the role of population movements in the national debates over land policy see Feller [1984]. Governor Ford in his *A History of Illinois*, [reprinted 1946], vol. 2 p. 112.

23.As discussed in the next section, if the existing tax is an *ad valorem* property tax or some type of user fee, it is possible that the normal tax is also a benefit tax.

24.This, of course, is just a Lindahl tax scheme.

25.To see that $b_i > t_iC$ under benefit taxation, substitute on the right hand side: $t_iC = (b_i/B)C = (C/B)b_i$. Since $C/B < 1$, the first inequality holds.

26.The stricture on direct taxation in the federal constitution effectively prohibited the federal government from using benefit taxation in this period. The federal government implemented a property tax in 1799, 1814, and 1862, but the tax had to be allocated on the basis of population, it could not be allocated on the basis of benefits as measured in increased wealth or property values.

27.Canals required eminent domain and banks required limited liability and, often, the privilege of note issue.

28.It was common in early charters for the state to "reserve" shares of stock for the state at no cost to the state.

29.This, obviously, abstracts from any consideration of general opposition to corporations, or the possibility that the group that does obtain the charter may deprive some other group of the charter.

30.The inability of purely private corporations to engage in large scale transportation projects is a central element in Callender's [1902] argument about the need for state intervention in capital markets.

31.The second taxless finance variant was commonly used to finance bank investments.

32.The third taxless finance variant was commonly used to finance canals and railroads.

33. As the historical sections of the paper stress, by 1830 states were able to draw on an extensive experience with investments in banks and canals. An expectation that "M" was positive and large, and that the probability of a successful investment, "s," was close to one was reasonable in the early 1830s.

34.This section draws on the large literature on universalism, including Collie [1988], Inman and Fitts [1990], Niou and Ordeshook [1985], Shepsle and Weingast [1984], Stein and Bickers [1995], and Weingast [1979].

35. Both of these restrictions are easily generalized, for example, to projects that benefit a small number of (perhaps contiguous) districts simultaneously.

36.All of these assumptions can easily be generalized, so that the benefits, b_i, costs, c_i, and tax share, t_i, differ across districts.

37.Various "universalism theorems" show that, in comparison to the uncertainty of partisan politics (e.g. minimum winning coalitions) that build fewer projects than one for each district (but at least a majority), every legislator is better off under universalism (Niou and Ordeshook 1985, Shepsle and Weingast 1981, Weingast 1979).

38.Benefit taxation and taxless finance were not mutually exclusive policies, a state could use a little of each. Both benefit taxation and taxless finance legislation were easier to pass when there were large expected returns from the project.

39.There is no estimate of how much state governments invested in banks. There are some sticky issues of measurement that would have to be addressed to do this. We know that states had borrowed $66 million to invest in banks by 1841 (see Wallis, Grinath, and Sylla as well as *House Documents, 29th Congress, 1st Session, #226*. ???? The William Cost Johnson Report). States like New York, Pennsylvania, Maryland had extensive bank holdings not purchased or acquired with borrowed funds. I gave those a ball park figure of $15 million to produce the $80 million figure in the text. The $80 million figure is certainly too low. The history of early 19th century state banks can be found in Bodenhorn, 2000 and 2003.

40.Figures on state and local transportation expenditure are taken from Goodrich [1960] and on federal expenditures from Malone [1998]. The idea that government in the early 19th century was "laissez faire" is based solely on the experience of the federal government. A large and now venerable set of studies on early 19th century state government policies financed in the 1950s be the Committee on Research in Economic History showed indisputably that state government actively promoted economic development policies. This "commonwealth" literature includes Handlin [1943], Handlin and Handlin [1945 and 1969], Hartz [1948], Lee Benson [1961], Goodrich [1950 and 1960], Heath [1943 and 1954], and Cole [1970].

41.Quoted in House Document, 29th Congress, First Session, #226, p. 1051.

42.This paragraph is taken largely from Miller, 1962.

43.Scheiber [1969] describes the process in Ohio. Wallis, [2003A] describes Indiana. The situation in Illinois is a bit murky. Although the Illinois constitution required that all property be taxed by value, Illinois finessed the constitutional requirement by declaring that all land fell in one of three value classification. In February 1839, the state began taxing on assessed value (Haig, p. 79).

44.This is based on the following debts in 1841: Indiana $13 million, Illinois $12 million, Ohio $15 million, as well as the $7 million issued for New York to build the Erie and the $6 million issued by Ohio in the 1820s to build its first canals. This does not include the $22 million in New York debt in 1841, which was incurred after the state abandoned the state property tax.

45.For southern banks in general see Schweikart, 1987, for southern property banks in particular see Sparks, 1932.

46.Section 7 of the Mississippi charter of the Union Bank required that "Both the capital and interest of the said bonds shall be paid by said bank, at the times they shall severaly [sic] fall due." *Laws of Mississippi,* Adjourned Session, 1837, January 21, 1837.

47.The $53 million figure is composed of $15 million for Alabama, $4 million for Florida, $7 million for Mississippi, $2.6 million for Arkansas, and $24 million for Louisiana. Some of the debt issued in support of the Alabama bank after 1837 should perhaps not be included in the total, as the state at that point was trying to prop up the bank after the Panic of 1837. There was no immediate prospect that the bank would service the bonds, although the state clearly hoped that the bank would do so after the crisis had passed. The national government used the same arrangement to finance its investments in the First and Second Banks of the United States.

48.This includes debt issue of $22 million in New York, $37 million in Pennsylvania, $15 million in Maryland, and $6 million in Massachusetts. Even through Indiana and Illinois made changes in their property tax systems in 1836 and 1837, they also planned to finance early debt service out of borrowed funds.

49.For New Jersey and the Camden and Amboy see Cadman [1949]; for Georgia see Wallenstein [1987]; for Alabama see Brantley [1961]; for Massachusetts and banking in general see Wallis, Sylla, and Legler [1994]. For a more general discussion of corporations and state finances see Wallis [2003].

50.The remaining $28 million was for debts incurred by states that are more difficult to categorize.

51.A procedural restriction was included in the Rhode Island constitution of 1842, but it simply required the consent of the people before the state could borrow more than $50,000. Its essence, but not its details, are the same as in New Jersey. All references to constitutions in the paper are to Thorpe, 1909, as corrected by Wallis, *State Constitution Project*.

52.And in Indiana, 1851, Article X, section 5, made the usual exceptions: "No law shall authorize any debt to be contracted, on behalf of the State, except in the following cases: To meet casual deficits in the revenue; to pay the interest on the State debt; to repel invasion, suppress insurrection, or, if hostilities be threatened, provide for public defense."

53.In the late 19th and 20th century, this led states to create "special" governments that were geographically crafted taxing districts designed to provide a single service such as schools, water, sewers, electricity, gas, transportation facilities, and other public utilities. Construction of facilities was financed through bond issues, approved by voters, financed by property tax levies and user fees. See Mitchell, 1967.

54.New Jersey prohibited local governments from holding stock. New Jersey held several million dollars in the stock of the Camden and Amboy railroad, an important source of state revenue. Kentucky had substantial investments in its state bank.

55.States also began asserting their absolute authority to govern corporations, even after they had granted corporate charters, special or general: " All general laws or special acts, enacted under the provisions of this section may be altered or repealed by the Legislature at any time after their passage." (Ohio, 1851, Article 13, section 1).

56.For a more in depth treatment of general property taxation, and the requirements for uniformity and universality see G. Benson [1965] and Einhorn [2001].

57. "Walpole was supposed to be wielding two great instruments of corruption, of which the first was parliamentary patronage and the second public credit." Pocock, 1985, p. 131. The quotation comes from the essay "David Hume and the American Revolution: The dying thoughts of a North Briton," which along with the essay "The mobility of property and the rise of eighteenth-century sociology" give a good introduction to the notion of corruption in British and American political thinking in the 18th century. For the importance of parties and faction as a source of corruption see Bailyn, 1967, and Hoftstadter, 1969, particularly his discussion of Bolingbroke on pages 16 to 23.

58.Murrin, 1994, p. 104. The *Virtue, Corruption, and Self-Interest* volume edited by Matthews, 1994, contains several excellent essays on the concept of corruption in revolutionary and 19th century America, and the various concepts of corruption employed by Americans.

59.Shleifer and Vishny, 1993, p. 599. For other treatments of corruption see Klitgaard , 1988; Rose-Ackerman, 1978; and Clague, 2003.

60.Banning, 1978, p. 47. See the entire chapter 2, "Of Virtue, Balance, and Corruption for a deeper consideration of corruption in American thought.

61.Banning offers a subtle and insightful analysis of the changing definition of virtue [1988, p. 199]. "The citizen was self-reliant and assertive. He was expected to contribute to political decisions precisely on the basis of his independent understanding of his needs, choosing what was good for him as well as for the whole. He was not expected to *surrender* his particular self-interest. Instead, he was thought of as pursuing his particular desires while still remaining conscious of the interests of his peers and participating in a collectivity of equals... What, then, did the Revolutionaries usually intend by their repeated calls for sacrifice of selfish interests, for a commitment to the public good?... a vigorous and vigilant defense of one's own liberties and interests, as several of the quoted sources say, was an essential characteristic of a republican citizen; it was his contribution of his virtue to the public."

62.The quotation is from Banning [1988], p. 202-3. The quotations withing the quote are citations to Pocock. The first quotation is from Pocock [1977, p. 145] and the second from Pocock [1972, p. 121]. The brackets in the text are from the original Banning text. The emphasis in the text has been added.

63.An implication of this line of thinking is that states where the fiscal crisis was linked with venal corruption should not have changed their constitutions. There is evidence to support this interpretation in Florida, Mississippi, and Arkansas, the only defaulting states that did not adopt constitutional reforms. The evidence, however, cannot be easily reviewed in one article.

64.This is not meant to imply that political partisans did nor try to pin blame on whatever party or administration was in power when the decision to embark on projects was made.

65. Esarey, 1918, p. 410.

66.The details of the Indiana history are described in detail in Wallis [2003A].

67.Indiana *Debates and Proceedings* [1850], p. 660.

68.Kilgore Speech, Thursday, Nov. 21, *Debates*, [1850], vol. 1, p. 676.

69.Ibid, p. 676.

70.Ibid, p. 663.

71.Ibid., p. 652.

72.Holt, [1999], p. 958. Holt's excellent and exhaustive history of the Whig party is eloquent testimony to the lack of historical interest in the 1840 constitutions. There is not one general history of state constitutions in the references, paper or book. There are several references to student papers in Holt's seminars about state constitutional conventions in the 1840s, testimony to his interest.

73.In New York, "Partisan divisions alone, however, do not explain either the nature of the debate over state debts and development policy or its significance. For one thing, the most intense conflict occurred *within* the Democratic party and was partially responsible for a breach within the leadership that would endure throughout the 1840s. Nor was the Whig party united on the issue... It is equally clear that local and regional interests, when state policy affected them, were more important than partisanship." Gunn, p. 168

Calls for a constitutional convention divided the Democrats: "Thus the Whigs, who held the balance of power within the legislature, sided first with one and then the other faction, depending on the issue and the likelihood of its perpetuating dissension among their opponents. On the question of a constitutional convention, the Whigs supported the Radical position and Whig support proved crucial in 1844 and 1845." Gunn, p. 178-9.

At the constitution convention itself, "after four months of mostly nonpartisan deliberation, on October 9 the convention adopted a new constitution with only six dissenting votes." "The constitutional revision movement does not lend itself to a straight party analysis. Elements of both major political parties, as well as other political groups such as the Antirenters, eventually joined to demand changes in the state constitution... It would be extremely shortsighted, therefore, to attribute passage of the Constitution of 1846 to the machinations of political parties. To do so would be to seriously misjudge the significance of the critique of the existing constitution and to trivialize the long-run implications of constitutional change for the political system." Gunn, pp. 181-83.

74.Holt, [1999], first quote p. 1094, second quote p. 663. See Holt, 1978, for a discussion of party competition between the Whigs and the Democrats in the 1840s.

75.The table provides standard errors for descriptive purposes only. This is the universe of states, not a sample and the absolute differences between means are the real differences, not estimates.

76.Florida had the largest debts per capita and it did not restrict debt (it repudiated its debts and was shut out of capital markets). New York and Ohio had large debts, did not default, but did implement restrictions. This explains the difference in the difference between total debt and per capita debt states that restricted debt and those that didn't, compared to those states that defaulted and those that didn't.

77. A simple regressions of the change in total debt between 1841 and 1880 on whether a state restricted debt shows that states that restricted debt reduced their debt by about $11 million in contrast to states that did not restrict. In a regression where whether a state defaulted is also included. The difference restricting and non-restricting states falls to $9.5 million, while defaulting reduces state debt by $7 million.

78.In 1840 state debts were $198 million and local debts were about $25 million. In 1902 state debts were $237 million while local debts were $1,877 million. State revenues were $.88 per capita in 1840 and local revenues were $1.23. In 1902, state revenues per capita were $2.44 and local revenues per capita were $11.44. Wallis [2000].

79.See Wallis, 2000 and 2001 for elaboration of these themes.

80.Lamoreaux and Rosenthal [2004], pp. 5, 6, and 10, citing Freedeman [1979] for France and Kessler [1948] for New England. Several New England states had *de facto* general incorporation before they officially created laws. In fact, while many New England state passed general incorporation acts, they did not amend their constitutions to require general acts.

81.The 95 bank number is taken from House Document #111, 26[nd] Congress, Second Session, and the 93 free banks created is taken from House Document #226, 29[th] Congress, First Session. Also see Rockoff, 1974; and Rolnick and Weber, 1983.

82.Thus Persson and Tabellini, for example, measure constitutional provisions in the United States as fixed since 1800 because they focus only on the national government [2003, p. 83-100]. Neither suffrage, electoral rules, or the internal balance of executive and legislative power stayed constant in the states since 1800.

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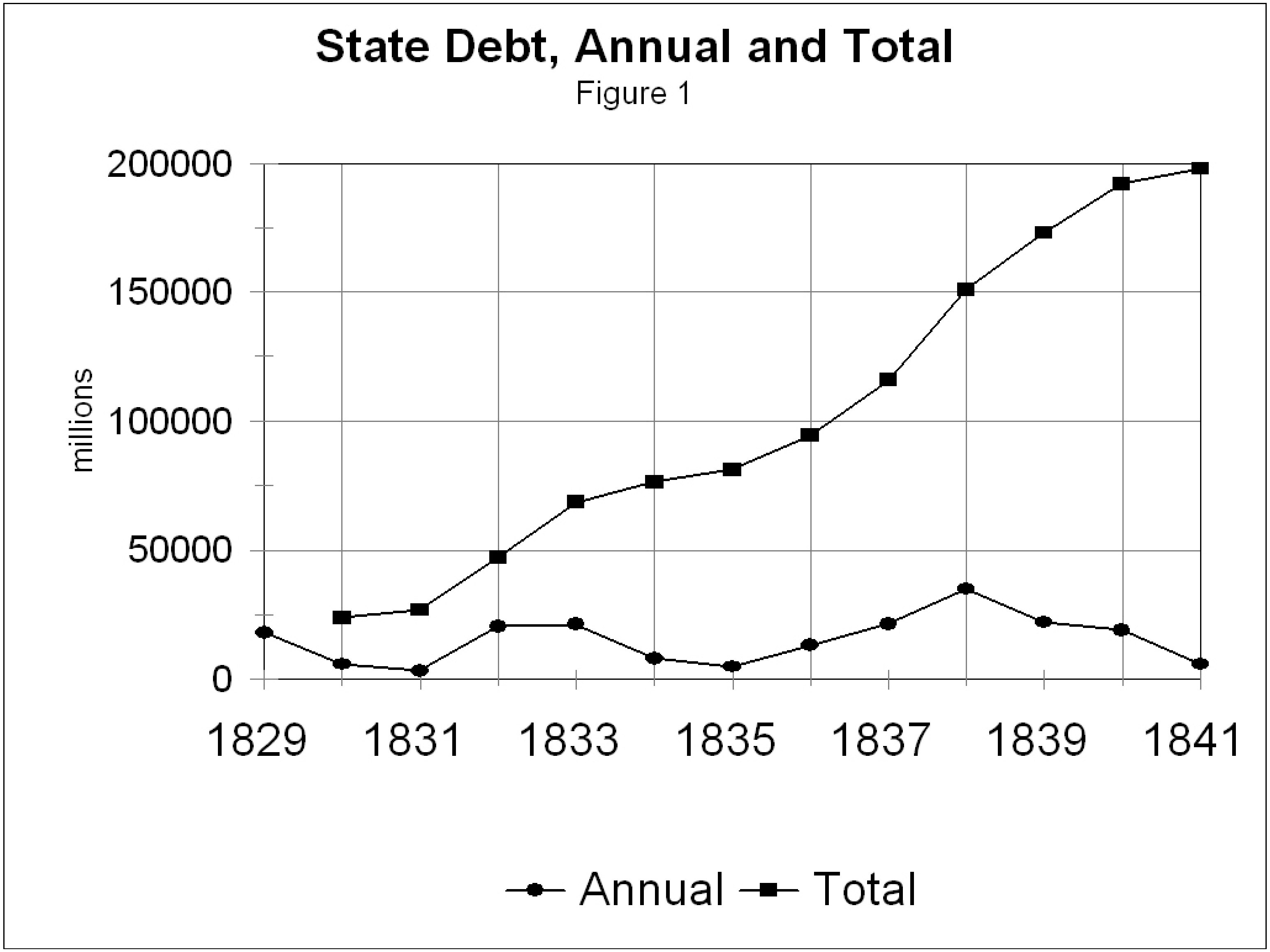
State Debt, Annual and Total
Figure 1
200000
150000
100000
50000
0
millions
1829
1831
1833
1835
1837
1839
1841
Annual
Total

Table 1
Total State debt and debt per capita in 1841,
whether a State defaulted or restricted debt,
and total State debt 1880.

State	Total Debt 1841	Debt PC 1841	Default?	Restrict?	Total Debt 1880
FL	$4,000,000	$74.07	Y	N	$1,280,500
LA	$23,985,000	$68.14	Y	Y	$22,430,800
MD	$15,214,761	$32.37	Y	Y	$11,277,111
IL	$13,527,292	$28.42	Y	Y	$281,059
AK	$2,676,000	$27.31	Y	N	$2,813,500
MI	$5,611,000	$26.47	Y	Y	$905,150
AL	$15,400,000	$26.06	N	N	$9,008,000
PA	$33,301,013	$19.32	Y	Y	$21,561,990
MS	$7,000,000	$18.62	Y	N	$379,485
IN	$12,751,000	$18.59	Y	Y	$4,998,178
NY	$21,797,267	$8.97	N	Y	$8,988,360
MA	$5,424,137	$7.35	N	N	$33,020,464
OH	$10,924,123	$7.19	N	Y	$6,476,805
WI	$200,000	$6.45	N	Y	$11,000
SC	$3,691,234	$6.21	N	N	$6,639,171
TN	$3,398,000	$4.10	N	N	$20,991,700
KY	$3,085,500	$3.96	N	Y	$1,858,008
ME	$1,734,861	$3.46	N	N	$5,848,900
VA	$4,037,200	$3.23	N	N	$29,345,226
MO	$842,261	$2.19	N	N	$16,259,000
GA	$1,309,750	$1.90	N	N	$9,951,500
NH	$0	$0.00	N	N	$3,501,100
CT	$0	$0.00	N	N	$4,967,600
VT	$0	$0.00	N	N	$4,000
RI	$0	$0.00	N	Y	$3,534,500
NC	$0	$0.00	N	N	$5,006,616
NJ	$0	$0.00	N	Y	$1,896,300
DE	$0	$0.00	N	N	$880,750

Notes: Debt in 1841 and 1880 taken from 1880 Census.

Table 2
Constitutional Changes, 1840 to 1860

Wrote New Constitutions	
Rhode Island	1842
New Jersey	1844
Louisiana	1845 1851
New York	1846
Illinois	1848
Kentucky	1850
Michigan	1850
Virginia	1850
Indiana	1851
Maryland	1851
Ohio	1851
Wrote First Constitution	
Texas	1845
Iowa	1847 1857
California	1849
Wisconsin	1848
Florida	1838
Amended Constitutions	
Arkansas	1846
Pennsylvania	1857
Michigan	1843

The following states did not write new constitutions or significantly amend their existing constitutions between 1840 and 1860
ME, VT, MA, CT, DE, NC, SC, AL, TN, MS, MO

Table 3
State Investment in Internal Improvements
By method of Finance

Method	Prediction	Amount
Normal taxation	None	$0
Something for Everyone	None	$0
Benefit Taxation	Positive	$53m
Taxless Finance	Positive	$53m Southern Banks $80m Northern transportation projects

Total is $186 million out of $198 million in state debt outstanding.

Table 4
General Constitutional Changes

Wrote New Constitutions		Debt	Corporations	Taxation
Rhode Island	1842	Y	Y	Y
New Jersey	1844	Y	Y	Y
Louisiana	1845	Y	Y	Y
	1851	Y	Y	Y
New York	1846	Y	Y	
Illinois	1848	Y	Y	Y
Kentucky	1850	Y	Y	
Michigan	1850	Y	Y	Y
Virginia	1850			Y
Indiana	1851	Y	Y	Y
Maryland	1851	Y	Y	Y
Ohio	1851	Y	Y	Y
Wrote First Constitution				
Iowa	1847	Y	Y	
	1857	Y	Y	
California	1849	Y	Y	Y
Wisconsin	1848	Y	Y	Y
Florida	1838		Y	Y
Amended Constitutions				
Arkansas	1846			
Pennsylvania	1857	Y		
Michigan	1843			

Table 5
Constitutional Restrictions on State Debts

New Const.		Procedural Restriction	Credit Not Loaned	Short Term Limit	Absolute Limit	Refer-enda	Time Limit	Ways and Means	Single Object	No Repeal
Rhode Island	1842	Y		50,000	N	Y				
New Jersey	1844	Y	Y	100,000	N	Y	35	Y	Y	Y
Louisiana	1845	Y		100,000	N			Y	Y	Y
	1851	Y		100,000	8,000,000			Y	Y	Y*
New York	1846	Y		1,000,000	N	Y	18	Direct Tax	Y	Y
Illinois	1848	Y		50,000		Y		Y		Y
Kentucky	1850	Y	Y	500,000		Y	30	Y		
Michigan	1843	Y				Y			Y	
Michigan	1850	NO II	Y	50,000						
Virginia	1850		Y				34			
Indiana	1851	Prohibited		Prohibited						
Maryland	1851	Y	Y	100,000	100,000		15	Y		
Ohio	1851	NO II	Y							
First Const.										
Iowa	1847	Y		100,000	N	Y	20	Y	Y	
	1857	Y	Y	250,000	N	Y	20	Direct Tax	Y	
California	1849	Y		300,000		Y	20	Y	Y	Y
Wisconsin	1848	Y		100,000			5	Y	Y	Y
Florida	1838	nothing								
Amended										
Pennsylvania	1857	Limited	Y	750,000						
Michigan	1843									

Notes:

Procedural Restriction is Yes if state has some legislature cannot increase debt unilaterally.
    No II if state cannot issue debt for internal improvements.
Credit Not Loaned is Yes if state cannot loan credit to private individual or corporation.
Short Term Limit is the limit on "casual debt"
Absolute limit is limit of the total amount of debt outstanding, regardless of purpose.
Referenda is Yes if voter approval is required for debt issue (aside from casual debt).
Time Limit is the maximum number of years bonds can be issued for.
Ways and Means is Yes if a taxes must be provided to service the debt.
    Direct Tax if a property tax increase must be provided.
Single Object is Yes if legislation authorizing debt must be constrained to one object.
Repeal is Yes if the laws authorizing taxation cannot be repealed, are "irrepealable."

Table 6
State Constitutional Provisions with Regard to Corporations

New Constitutions		Investment Prohibited	General Laws	Special Prohibited	Special Absolute	Repeal or Revoke	Banks
Rhode Island	1842	Y					
New Jersey	1844	Y (local)	Y	Y			
Louisiana	1845	Y	Y	Y			No
	1851	Y*		Y, not Banks			
New York	1846		Y	Y	No No Banks		
Illinois	1848	In Banks	Y	Y	NO		No State Bank General Voters
Kentucky	1850	nothing					
Michigan	1850	Y	Y				General Voters
Virginia	1850						
Indiana	1851	Y (S & L)	Y	Y			General
Maryland	1851		Y	Y	NO	Y	General
Ohio	1851	Y (S & L)	Y	Y	Y	Y	General Voters
First Constitution							
Iowa	1847	Y	Y	Y	Y		No
	1857	Y	Y	Y	Y	Y	
California	1849	Y	Y	N	Y		No Deposit
Wisconsin	1848	Y	Y	Y	N	Y	General Voters
Florida	1838	Y		N 2/3 majority			
Amended							
Pennsylvania	1838					Y	6 months
	1857	Y				Y	

Table 5, continued

Notes:

The Louisiana constitution in 1851 allowed investment in Internal Improvement Companies up to 1/5 of their capital.

Investment Prohibited: State (Local) government prohibited from investing in corporations.
General Laws: Corporations can be created under General Incorporation Acts.
Special Prohibited: State cannot, under usual circumstances, create corporations by Special Act.
Special Absolute: State can never create corporations by Special Act.

Banks:
No - Banks Prohibited
General - Banks allowed under General Act only
General/Voters - Banks allowed only if voters approve a General Incorporation Act.
Deposit - In California the only banks allowed are deposit banks, no money creating banks.
6 months - In Pennsylvania, bank charters had a 6 month waiting period.

Table 7
State Constitutional Provisions with regard to Taxation

Wrote New Constitutions			Uniform Rules	Taxed By Value	Equal Rate
Rhode Island	1842				
New Jersey	1844		Y	Y	
Louisiana	1845		Y	Y	
	1851		Y	Y	
New York*	1846	nothing			
Illinois	1848		Y (local)	Y	
Kentucky	1850	nothing			
Michigan*	1850		Y	Y	Y
Virginia	1850		Y	Y	Y
Indiana	1851		Y	Y	Y
Maryland	1851			Y	
Ohio	1851		Y		
Wrote First Constitution					
Iowa	1847	nothing			
	1857	nothing			
California	1849		Y	Y	Y
Wisconsin	1848		Y		
Florida	1838		Y		Y
Other States					
Tennessee	1834		Y	Y	
Maine*	1819			Y	Y

Table 8
Party Strength in the States in the early 1840s

	New Constitutions or Amendment 1842 to 1852	Average Whig Percentage in State Legislature 1841 to 1844	Whig Percentage in Popular Vote for President 1844
PRO-WHIG		GROUP I	
Rhode Island	Y	77	60
Vermont	N	57	55
Kentucky	Y	68	53.9
North Carolina	N	51	52.7
Maryland	Y	50	52.4
Massachusetts	N	62	51.7
Delaware	N	67	51.2
Connecticut	N	49	50.8
New Jersey	Y	56	50.4
Tennessee	N	52.5	50.1
Ohio	Y	50.5	49.6
IN BETWEEN		GROUP II	
Georgia	N	49	48.8
Louisiana	Y	54.5	48.7
Pennsylvania	Y	40	48.5
Indiana	Y	48	48.4
New York	Y	29.5	47.8
Virginia	Y	47	47
PRO-DEMOCRAT		GROUP III	
Michigan	Y	12.5	43.5
Mississippi	N	35	43.4
Missouri	N	35.5	43
Illinois	Y	32.5	42.4
Alabama	N	37	41
Maine	N	30	40.4
Arkansas	N	22.5	37
New Hampshire	N	32.4	36.3

Source: Holt, 1999. Table 20, p. 214.

Table 9
Total and Per Capita debt 1841, in states that defaulted and in States that restricted debt, and change in debt 1841 to 1880

States that:	Defaulted	Did not Default
Total Debt	$13,118,451	$4,258,958
standard error	$10,100,139	$6,886,104
Per Capita Debt	$35	$4
standard error	$21	$6
	Restricted Debt	**Did not Restrict Debt**
Total Debt	$12,456,069	$3,094,590
standard error	$10,936,273	$3,936,357
Per Capita Debt	$18	$11
standard error	$19	$19
	Restricted Debt	**Did not Restrict Debt**
Change in Total Debt between 1841 and 1880	($5,437,797)	$6,274,004
standard error	$6,202,488	$10,245,757
	Defaulted	**Did not Default**
Change in Total Debt between 1841 and 1880	($5,793,143)	$4,593,094
standard error	$4,508,886	$10,844,711