Public Choice **113:** 287–299, 2002.

Defending the articles of confederation: A reply to Dougherty

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Accepted 23 April 2001

Abstract. This reply addresses the issues raised by Dougherty in response to my 1999 article in this journal. I also develop a new graphical model of the optimal collection rate under the Articles, where states made contributions, and contrast it to the revenue potential from direct taxation. I believe that despite Dougherty's criticisms, my argument remains valid. While the Articles were not perfect in an absolute sense, that when more properly viewed in a comparative manner, that the system of state contributions for raising revenue under the Articles was (and still is) superior to a system of direct federal taxation.

1. Introduction

In his recent reply to my 1999 article, "In Defense of the Articles of Confederation and the Contribution Mechanism as a Means of Government Finance," Keith Dougherty raises several fundamental issues that I attempt to address in this response. The main thrust of my original argument was that the system of financing the federal government under America's first constitution, the Articles of Confederation was (and still remains) a superior system of financing government in a federal system than the alternative system of allowing the federal government to have the power to directly levy taxes on citizens.[1]

The stance I took in my original paper, one of defending the Articles as superior to the U.S. Constitution that replaced it, is admittedly rare in a historical sense. For two centuries, most historians and political scientists have done nothing but criticize the Articles and point to their flaws, while similarly holding the U.S. Constitution up on a pedestal. Only recently have scholars in public choice and constitutional economics began to address the merits of the Articles and to perform scholarly comparisons of that document to the subsequent U.S. Constitution that replaced it. In addition to my own works on this issue (Sobel, 1997, 1999), other authors such as Dwight Lee (1985, 1994) and Randy Holcombe (1991, 1992) have also published research that contains a favorable view the Articles, both also suggesting that the Articles were in some ways a superior document to the U.S. Constitution. While there may be many respects in which the Articles were superior, at issue here is the system for financing the federal government. Unlike the subsequent U.S.

Constitution, the Articles did not allow the federal government the power to directly tax citizens, but rather required it to obtain revenue by assessing the states. This issue is not only important historically and theoretically, but is also a relevant issue in the design of financing mechanisms for international organizations or bodies such as the United Nations and the European Union. Direct applications of this argument to these international organizations can be found in Sobel (1994) and Sobel (1996).

The main counter argument commonly put forth in the literature, and reiterated by Dougherty (forthcoming) and Dougherty and Cain (1997), against my position that the system of contribution financing under the Articles is superior to direct taxation consists of pointing out that the federal government received only about half of the money it requested from the states under the Articles. In this reply I'd like to proceed to show that this is not sufficient evidence on which to base a conclusion that would be in opposition to my original argument.

2. Establishing a framework for the proper assessment of the Articles

The disagreements between the conclusions reached in my original article, and Dougherty's response come primarily from a single difference in our framework for judgement. Like the many other authors who have criticized the Articles, the starting point for Dougherty is one I will call the "absolute standard." In this absolute standard framework, the outcomes under the Articles are compared with some hypothetical ideal outcome. This hypothetical ideal outcome is usually either derived through a theoretical mathematical model, deduced without a formal model from preconceived notions of optimality, or is based upon some outcome which is achievable only in modern times with our improved technology. When Dougherty or others point out that the collection rate under the Articles was less than 100 percent, or that there were other collective-action problems under the articles, the absolute standard then *necessarily* implies that they were a failure relative to some ideal standard in which these problems don't exist. It would be impossible for me, or anyone for that matter, to disagree with this statement, which in my view is precisely why that type of analysis is not very enlightening.

I hope that the lasting impact of my research on the Articles will be to change the entire environment for future research away from the absolute standard toward what I shall refer to as the "comparative standard." One of the hallmarks of economics as a science is the use of the concept of opportunity cost. When judging the value of any alternative, it must be compared to other viable alternatives *in the opportunity set*. No choice can be viewed in isolation, it must rather be judged relative to other feasible real-world alternative choices that could have been made. Some examples will help to illustrate this important distinction more clearly.

Suppose that it is shown that in some specific case the private unregulated market will fail to achieve the absolute standard of Pareto Optimality. By an absolutist standard there is clearly a role of government to impose, through force, this optimality condition. The key insight of the public choice school was getting the comparative standard applied to cases such as this. The real question becomes can the private market, even though it is not meeting this absolute standard, still be a better alternative than having government intervention given that it is subject to problems as well. It is likely that we may conclude that even though there is a "failure" relative to some optimal condition, that the unregulated result is still superior to the alternative of government intervention. As a second example, in comparative economic systems, debating whether capitalism is perfect from an ideal efficiency standpoint by itself is of little use. The relevant comparison is whether capitalism is a better system than other feasible alternative systems would be in the real world. It would not be fair to compare actual outcomes under capitalism to some hypothetical ideal socialist outcome and declare capitalism as a failure if it did not meet all the same mathematical conditions. The only appropriate comparison is to other real-world alternatives, the way socialism works in reality versus the way capitalism works in reality. Finally, most economists would be in favor of legalization of drugs to some degree. The usual economic argument is not that legalization will generate a perfect outcome, but rather that is creates fewer problems than the alternative of maintaining prohibition.

Did, as Dougherty argues, the Articles suffer from a collective action problem relative to an ideal outcome with no such problem? *Certainly*. I'm not in disagreement on this claim that he makes the central point of his reply. Did the federal government's tax collections fall short of the full amount they requested? *Certainly*. Was the welfare of the citizens living in America less under the Articles than under some imaginary system that solved all of these problems? *Certainly*. Was the actual outcome under the Articles inferior to other potentially achievable outcomes that could have been obtained at that time in history, not in theory, but in reality under other constitutional provisions? *Not necessarily*. And while I make no claim to have the final word on the issue, I'd argue that quite to the contrary that despite its problems (relative to an ideal), that the Articles were better than any alternative at that time for financing federal expenditures. My argument has two main branches highlighted below.

(1) The system of state contributions under the Articles produced at least as much, if not more, actual revenue for the federal government to fight the Revolutionary War than would have been produced through direct taxation by the federal government.

(2) A system of state contributions (relative to direct taxation) has broad-sweeping general equilibrium effects that promote more efficiency in federal government operations and reduces the welfare cost of taxation.

Part (2) of my argument is not challenged nor addressed in Dougherty's reply. It is, however, very relevant in making any comparison or judgement on which document is better in a comparative sense. Both myself (Sobel, 1997, 1999) and Dwight Lee (1985, 1994) have in our research strongly supported this view. Put simply, we both conclude government is more efficient under a collection mechanism. In addition to gains on the expenditure side, a system of state requisitions also reduces the welfare cost of taxation. Because the federal government is constrained to levy the same tax across all states, while states can adjust at more margins individually, the welfare cost of raising revenue will necessarily be lower under a requisition system. This also puts beneficial interstate competition at work in the raising of federal revenue. However, Dougherty did not challenge this part of my analysis, so while this is an important issue, I will move on to other points he raises. A reader interested in the finer points of these claims can find a more formal development in Sobel (1997).

Dougherty's main criticisms of my analysis come on point number (1), the level of revenue relative to alternative systems. Even if I were to concede this point to Dougherty, there remains strong reason to believe that the efficiency benefits from point (2) far outweigh the costs of less revenue. In fact, a more efficient government requires less revenue, so it's not clear that the relationship isn't complementary to begin with. Nonetheless, it is worthwhile to reconsider Dougherty's claims on the revenue side.

In my original paper I argued that using data from Bullock (1979 [1895]) over every requisition made by the federal government, the collection rate was approximately 50%. In his reply Dougherty recalculates this with his data and "estimates that the states returned closer to 41% of the money requested between 1782 and 1789, not the 50% that Sobel claims." Our difference here is that my data include the value of all requisitions (including in-kind requisitions) and not just monetary requisitions as his data does. In fact, his own data on troop requisitions show a cooperation rate by the states of over 50 percent. But nonetheless, our difference is only about 9% which shouldn't change the argument by that much anyway as I proceed.

My major claim was that the collection rate experienced by the federal government from the states under the Articles was higher than the collection rate that the federal government would have had under a system of direct taxation at that same time. I attempted to support this with two observations, (1) that the actual collection rate, while low, was still higher than the collection rate experienced by the states from their own direct taxes during that time, and (2) that this collection rate was higher than the actual collection rate the federal government experienced on it's own direct taxes after it was given the power of taxation by the U.S. Constitution. While the 9% difference that Dougherty would trim away from my total brings the collection rate down closer or just below the rate states were experiencing at the time, it does not affect the point made by the second observation. While Dougherty suggests that I should for fairness compare collection rates under the Articles to other foreign governments, I believe that comparing it to what actually happened in the U.S. after the system was changed is the precise counterfactual that is necessary to make the point. Nonetheless, even trimming away the 9% one would be hard pressed to argue that the collection rate under the articles was significantly worse than what the states were averaging from their own taxes – it wasn't.

Perhaps the biggest flaw I see in Dougherty's criticism of my article is in the assumptions that the collection rate and the amount requested are exogenous. In his analysis, if the government needed $100 million, it would request exactly $100 million, but then have to struggle by on only $50 million if it was receiving a 50% collection rate. But, in reality, this financing process under the Articles continued for over a decade. It seems likely that eventually, the federal government would, knowing it would collect only a fraction of what was requested, just simply request more money than is really needed. For example, if the known collection rate was 50% and the government needed $100 million, it could simply request $200 million and collect exactly what was desired. For any given collection rate, and any given amount needed, it is rather simple to calculate the amount that should be requisitioned to achieve the desired revenue. If this were possible in a strict sense, it would completely discount any argument that there was less revenue than needed, or less than under any other system. It would also mean that the actual collection rate is meaningless as a measure of the proportion of the needed revenue raised because the government's requisitions would be biased upward. I don't believe this is strictly true, particularly because the collection rate should fall as the amount requisitioned increases, and I explore this in detail in the next section with a more formal model.

3. A model of the collection mechanism

As Joel Slemrod points out in his 1990 article "Optimal Taxation and Optimal Tax Systems,"

> "[O]ptimal tax theory is incomplete as a guide to action ... and for other critical issues in tax policy ... because it has yet to come to terms with taxation as a system of coercively collecting revenues from individuals who will tend to resist." (p. 157)

Any means of collecting revenue, whether it be direct taxation or contribution assessments will be subject to collection problems. Note that Slemrod inherently adopts the approach I termed the comparative standard in his quote. He asks us to consider the relative efficiency of different feasible tax systems given the inherent problems involved. That is precisely the purpose of this section, to address this issue more formally in a model of endogenous collection rates.

In particular, it is logical to assume that the collection rate (C) would be inversely related to the expected gain from noncompliance. This expected gain would depend both upon the probability of detection, or the rate of enforcement (E), and on the total value of the taxes being assessed or requested (T). Thus, this implies that C = C(E,T). For current purposes the important relationship is that, *ceteris paribus*, as the amount assessed (T) increases, the expected gain from noncompliance increases, and thus the collection rate (C) falls. Mathematically this would imply that $\partial C/\partial T < 0$. This inverse relationship between the collection rate and the amount of the total taxes assessed is shown in Figure 1.

The actual revenue collected (R) would then be equal to the product of the collection rate (C) times the amount requisitioned (T), or $R = C \times T$, which is shown by the shaded region in Figure 1. A numerical example is provided in which \$200 million is assessed, 20% is the collection rate, so actual revenue is \$40 million. If we impose the standard assumption that the government is attempting to maximize it's actual revenue collected this would occur at the point in the figure where the elasticity of the collection rate with respect to the assessment amount is precisely equal to one, maximizing the area under the curve. This can be seen by filling in the equation for the collection rate (C) into the equation for actual revenue (R). Here $R = C(E, T) \times T$, and maximization of R with respect to T yields a first order condition of $\partial R/\partial T = 0$ or $(\partial C/\partial T) \times T + C = 0$ which can be simplified to $(\partial C/\partial T) \times (T/C) = -1$. The term $(\partial C/\partial T) \times (T/C)$ is precisely the elasticity of the collection rate (C) with respect to the amount assessed (T).

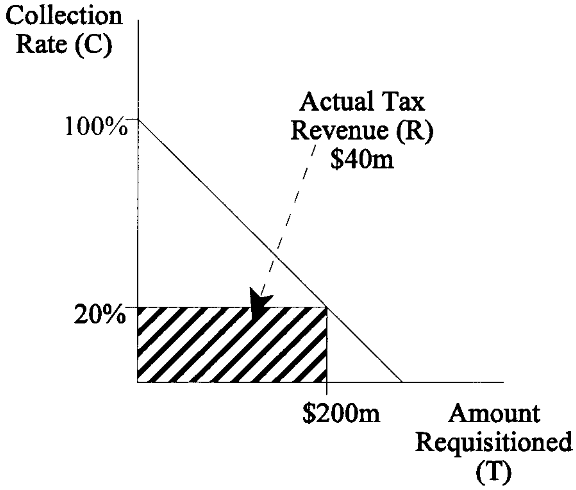

Figure 1. Relationship between the amount requisitioned and the collection rate.

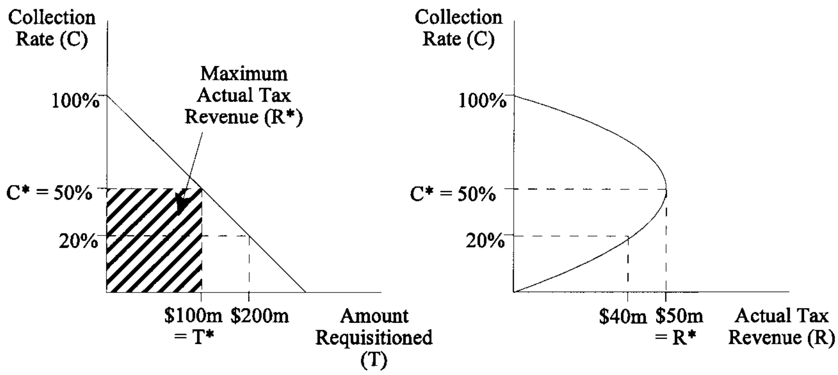

Figure 2. Relationship between actual tax revenue and the collection rate.

The relationship between actual revenue and the collection rate then takes on a Laffer Curve type shape and is presented in the right hand panel of Figure 2. Ironically, if the relationship between the collection rate and the assessment amount is linear, this would occur approximately half the way down the vertical axis, or at a collection rate of approximately 50 percent, a rate almost identical to the actual rate experienced under the articles.[2]

The point here is that from the standpoint of maximizing revenue, the optimal collection rate is not 100 percent, but indeed is much less. It is quite conceivable that the optimal collection rate for maximizing actual revenue is substantially less than 100 percent. This model can also he used to highlight the endogenous nature of the amount assessed by working backward to the

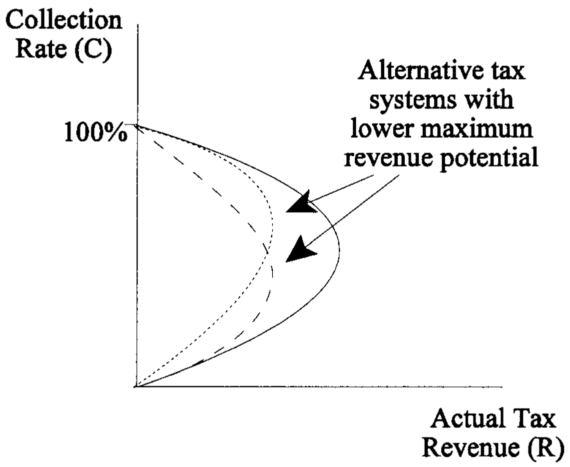

Figure 3. Alternative tax systems with lower maximum revenue potential.

first panel in Figure 2. If the collection rate that maximizes revenue is 50 percent, then the optimal amount to assess or requisition is $100 million, with the plan being that this will generate $50 million in actual revenue.[3]

Within the framework of the model presented here, the issue at hand is whether an alternative mechanism, such as direct taxation would, at it's own different optimal collection rate generate a larger amount of actual revenue. That is, does the curve presented in the right hand panel of Figure 2 if it were redrawn for an alternative system in which the federal government had the power of direct taxation have a maximum point that is to the left or to the right of the maximum point under an assessment system, regardless of the collection rate necessary to obtain this maximum. My claim is that given the historical data on state collections from direct taxes and the actual experience of the federal government after it was given the power of direct taxation in the U.S. Constitution is that the curve representing the alternative system of direct taxation has a maximum point less than the maximum point for the assessment mechanism. Two such alternatives that meet this criterion are presented in Figure 3 as dashed lines. Based upon actual historical experience, the first federal direct taxes had substantially lower collection rates and lower revenue, which would correspond to the dashed curve with the maximum point that occurs at the lower collection rate.

While Dougherty would wish us to consider the problem of less than a 100 percent collection rate as a collective action problem among the states that was inherent in the Articles, I would rather argue that it was a problem of compliance that is present in all forms of taxation simply because of the inherent coercive nature of taxes that is pointed out in the quote by Slemrod that opens this section.

4. Are collective action problems always bad?

Even if my contention that the government was able to raise more revenue under the assessment mechanism was wrong, a final point is worth considering. Suppose that an assessment mechanism inherently provides less revenue than a system of direct taxation. Does this then imply that the lower revenue is necessarily bad from a social welfare or efficiency standpoint? Not necessarily. Public choice scholars such as Brennan and Buchanan (1977, 1980, 1986) have consistently argued that constraints on the ability of government to raise revenue are generally positive given that governments do a lot of efficiency *reducing* activities (that is activities beyond what would be considered efficient). Thus, restricting government revenue can generate positive efficiency gains if it restricts the inefficient activities of government.

In my original paper I attempted to argue that there is no consistent argument that can be used by anyone that simultaneously justifies *not allowing* the United Nations to have the power of direct taxation (a position which among both scholars and laymen is almost unanimous) but *does* allow the U.S. federal government to have the power of taxation from any *positive* criteria. That is, any argument that can be given for why the U.N. should *not* have the power of taxation can also be applied as an argument for why the U.S. federal government should *not* have the power of taxation as well. Alternatively, any argument for why the U.S. federal government should have the power of direct taxation can also be used to argue for. why the U.N. should also have this power. I appreciate this argument mostly because many people have a fundamental disagreement in their own beliefs on this issue which is not logically consistent. Only a normatively held belief can separate the two. It is precisely the presence of the collective action problem in this framework of contributions which serves to push for efficiency in government. The fact that the U.N. is not able to carry out as many activities as it would care to is, in most people's opinion, an efficiency *improvement*. If all governments blindly supplied only public goods in optimal amounts this argument would not hold, but it does hold for real world governments who are subject to many failures. In addition, there are strong reasons to believe that an assessment mechanism results in other efficiency enhancing aspects on both the government expenditure and revenue sides. These are more properly addressed at length in Sobel (1997).

Perhaps the most controversial claim I made in my original paper was that if there had been a severe collective action problem under the articles that it should have resulted in sub-optimal public goods production. Because the primary public good being produced at that time was the Revolutionary War itself, I argued that the fact that the states won the war was evidence against this under production. While on careful reconsideration I believe I fell into the absolutist standard trap on this issue, I will consider his comment on it's own terms before attempting to switch the focus to a comparative standard. Dougherty is correct in his criticism of my analysis herein that the fact that the states actually did win the war can neither prove nor disprove this statement. Under production would have simply resulted in a lower probability of winning, which can neither be proved nor disproved based upon the actual outcome. It is worth noting that given the opportunity cost of resources devoted to the war, the optimal level of production for the war could logically be the minimum level that wins the war. If this were true, then small departures from this point should have been very likely to affect the outcome. However, I will not attempt to use this argument further, and will concede to Dougherty that the fact that we won the war does not disprove that public goods were under provided. However, I still believe his case would be stronger had America lost the war.

Dougherty also cites evidence that the war was under provided based on quotes about how generals could have used more troops, and how troops lacked necessary supplies. For example, Dougherty states that then general "George Washington claimed as early as 1776 that without new recruits he would be forced to discontinue the war." Frankly, I'm not very convinced by these arguments. All bureaucrats want expansions in the resources devoted to their operations. Further, because bureaucrats do not have to bear the social cost of using these resources they will demand resources until the marginal benefit is precisely zero, a scale which is beyond the optimal provision. The literature is full of bureaucracy models that suggest that bureaucrats will employ precisely these "all or nothing" type tactics to attempt to expand their bureaucracies beyond the efficient scale.[4] I don't find it surprising at all that a general would make such a quote, and don't believe that it is sufficient to prove nor disprove the claim that public goods were under supplied.

However, returning to the absolute versus comparative standard focus, the real question is not whether public goods were under provided relative to some absolute ideal standard, but rather whether an alternative form of revenue raising (direct taxation) would have produced more or less revenue for public good production. My claim that the requisition mechanism produced more revenue for the federal government than would a system of direct taxation (a claim that is not refuted by Dougherty), would argue that even if public goods were being under produced, that they would have been even further under produced had the requisition system not been in place.

The more general point is that if no other system could have produced more revenue than the contribution mechanism did, then the probability of winning the war, from a pure resource standpoint, was maximized under the Articles despite any collective action problems that may have existed in an absolute sense. I will concede to Dougherty, however, that in my original article I may have gone to far towards claiming that a collective action problem did not exist in an absolute sense.

5. Conclusion

One of the main points I attempted to make in my original article was that the contribution mechanism under the Articles was a superior system for government finance than the system of direct federal taxation that is present in the U.S. Constitution. In my original article I attempted to note that the poor collection rate experienced by the federal government under the articles was not by itself sufficient to contradict this argument. In his reply to my article, Dougherty claims from an "absolute standard" approach that a collective action problem existed under the Articles and that I had somehow attempted to deny the presence of this problem. In this reply I have attempted to refocus the discussion around a "relative standard" approach and further argue that despite the problems that I will admit existed, that the Articles remain superior to any other policy option in the feasible set at that time in history, given the lack of developed government technology for the collection of direct taxes. I have also tried to refocus my discussion to make my argument independent of the actual amount of revenue raised, in stating that even if direct taxes provided more revenue (as is likely the case today) that it is still possible that government would be more efficient under a collection mechanism. Finally, I developed a new model that suggests that the optimal collection rate under any tax system is not 100 percent. The model suggests that a low collection rate may not only have been the optimal collection rate to maximize revenue, but also that the actual collection rate may have been endogenously driven down by the federal government increasing the amount of the assessments with knowledge that the full amount would not be collected. This also raises a fundamental point that the total amount assessed is generally not a good measure of the actual revenue needs of the government if it is acting optimally to raise revenue because with less than full collection, the government would optimally over-assess taxes.

Notes

1. The Articles of Confederation was passed by the Continental Congress on November 15, 1777, and was ratified by the states in March 178 1. The Continental Congress' requisition authority over states, given to them in the Articles, was first exercised on November 22, 1777. The Articles remained in effect until they were replaced by the U.S. Constitution in 1789.
2. For example, if $C = \alpha - \beta \times T$ then $\partial C/\partial T$ is simply $-\beta$ and the first order condition reduces to $T^* = \alpha/2\beta$, and filling this into the equation for C produces $C^* = \alpha/2$. Because α is the vertical axis intercept from the line shown in Figure 1 (which is 100 percent), then C^* would be half this amount or 50 percent.
3. If there is any doubt as to whether or not members of the federal government at that time would have been able to deduce this type of Laffer Curve relationship, it is worth explicitly noting that Alexander Hamilton directly points out his knowledge of this type of relationship between actual revenue and tax rates more than once in the *Federalist Papers*.
4. See for example, Niskanen (1968, 1971).

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