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THE RELATIONSHIP BETWEEN TAXPAYERS AND TAX SPENDERS: DOES A ZERO TAX-PRICE MATTER

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The Relationship between Taxpayers and Tax Spenders: Does a Zero Tax-Price Matter?

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Abstract

As public concern over rising U.S. budget deficits and debt mounts, policymakers propose numerous explanations and policy changes. One explanation dates back to political theorists John C. Calhoun and James Madison, who wondered about the consequences for the republic if the citizenry became divided into classes of taxpayers and tax beneficiaries or spenders. In particular, they feared that the property rights of the taxpayers would not be protected. This paper argues that the Sixteenth Amendment establishing the income tax nullified the prior constitutional restraint on the size of government and enabled one group of citizens to vote themselves benefits at the expense of another. In terms of economic theory, the budget has become a "commons" and is subject to the tragedies of overuse and abuse. Over the past three decades, the distribution of U.S. tax liability has become more skewed. A rising percentage of citizens pay few or no federal taxes, so that a smaller share of the citizenry increasingly bears the tax burden. Analytical work shows that the skewed distribution of the U.S. tax liability is correlated with higher debt and greater entitlement spending. Since currently there are no constitutional constraints on deficit spending, the research calls for policy makers to broaden the tax base so that more citizens will feel the cost of deficit spending and to take action to reduce the associated tax burdens. This paper demonstrates that when the tax-price of government services is zero, more will always be demanded.

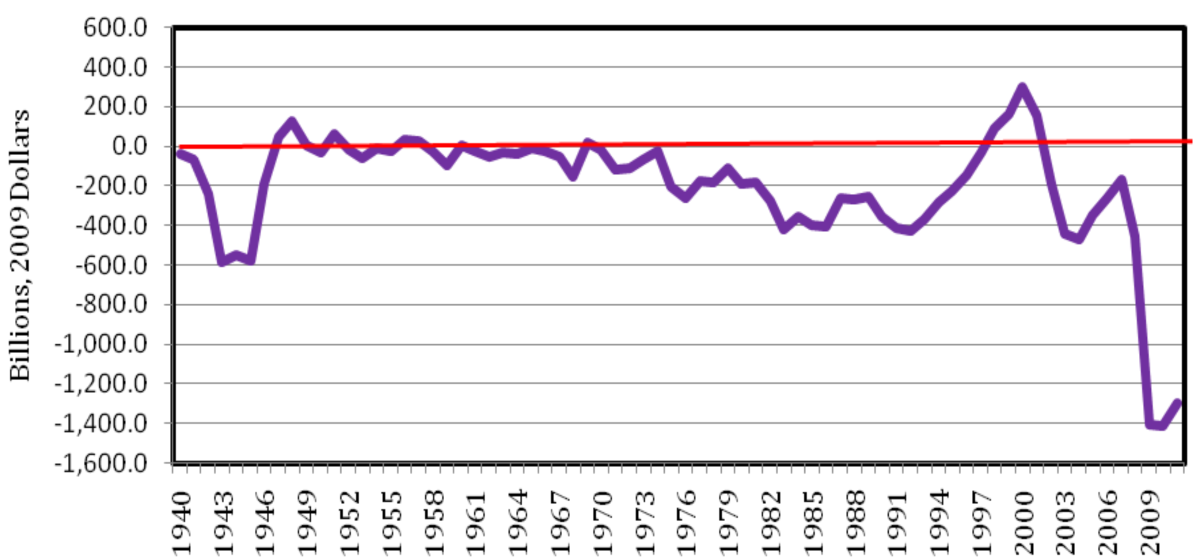
1. Introduction

In January 2011, the U.S. Congressional Budget Office issued its latest analysis of the U.S. budget and outlook (Congressional Budget Office, 2011). The report described a ballooning federal deficit that—as a share of GDP in 2010 and 2011—was the largest since World War II. The report summarized the situation this way:

> For the federal government, the sharply lower revenues and elevated spending deriving from the financial turmoil and severe drop in economic activity—combined with the costs of various policies implemented in response to those conditions and an imbalance between revenues and spending that predated the recession—have caused budget deficits to surge in the past two years. The deficits of $1.4 trillion in 2009 and $1.3 trillion in 2010 are, when measured as a share of gross domestic product (GDP), the largest since 1945—representing 10.0 percent and 8.9 percent of the nation's output, respectively (Congressional Budget Office, 2011, 1).

As indicated in Figure 1, the looming deficit has a long pedigree that—barring the years 1998-2001—emerged systematically around 1970. The deficit problem clearly did not start with the Great Recession of 2007-09.

Figure 1: Federal Deficit, 1940-2010



Source: Office of Management & Budget, Congressional Budget Office.

Economists have spilled shiploads of ink on the U.S. deficit problem and possible solutions for it. This paper will not in any way attempt to summarize that literature or enter the important debate about remedies.[3] That is not the purpose. Instead, this paper seeks to examine a relationship between the share of citizens who pay taxes, taxpayers, and those who receive federally funded benefits, tax spenders, or what we ordinarily think of as tax beneficiaries. As this paper will show, an exploration of changes in the share of payers/spenders can explain part of the U.S. deficit explosion that has occurred in recent years. The relationship analyzed is a simple one: when the tax-price of federally provided benefits is zero, people demand more, even when funded with deficit money.

At the outset, we note that operating a public-deficit economy is not unique to the United States. As indicated in Reinhart and Rogoff's (2009) excellent survey of experiences with government debt, deficits, and default over several centuries, high levels of debt and default are commonplace. The authors count 26 countries in Europe and Latin America that experienced default in the 20th century up to 2008, with some countries defaulting multiple times (Reinhart and Rogoff, 2009, 96). They also provide data on financial and banking crises for more than 66 countries for the years 1800–2008 (Reinhart and Rogoff, 2009, 348-392). But the focus of this paper is on the U.S. deficit experience. The paper makes no claim for how the findings may relate to the rest of the world.

This paper is organized as follows: the next section discusses political and economic thought regarding fiscal constraints and the relationship between those who pay taxes and those who receive the benefits of taxation. The discussion begins with John C. Calhoun and

[3] See Yandle, 2010.

James Madison and extends through Milton Friedman's recommendation for a negative income tax. The relative strength of fiscal constraints is central to this discussion. Put another way, the issue has to do with how to ration activity on the fiscal commons, which is the theme of an important strand of economics literature. The discussion in this section then focuses on literature that has examined the fiscal commons and the deficit commons that follows. In both cases, citizens have an incentive either to get as much as they can or to avoid as much cost as possible. The paper goes on to briefly review legislative constraints to the fiscal commons and attempts to restrain federal government spending and deficits—and conclude that they have been largely ineffective. Next, the paper documents what has actually happened on the fiscal commons as the share of citizens who pay little or no taxes has increased. The paper then carefully examines the link between the increasingly skewed distribution of tax liability and government debt as well as entitlement spending. The correlations are striking and strong. The paper concludes with final thoughts.

2. Taxpayers and Tax Spenders on the Commons

Focused concern among U.S. policy analysts over the uneasy political relationship between those who pay taxes and those who receive benefits funded with tax revenues goes back to at least the early 19th century, when politicians and political theorists were engaged in major debates about how to constrain the spending habits of the new nation. Writing in 1810 in his *A Disquisition on Government*, American politician and political theorist John C. Calhoun warned of a problem that could develop when a community became divided on the basis of those who pay taxes and others who spend taxes (Calhoun, 1992 [1810]). He had this to say on the matter of one citizen group or region gaining at the expense of another:

> … it must necessarily follow, that some one portion of the community must pay in taxes more than it receives back in disbursements; while another receives in

> disbursements more than it pays in taxes… The necessary result, then, of the unequal fiscal action of the government is, to divide the community into two great classes; one consisting of those who, in reality, pay the taxes, and, of course, bear exclusively the burthen of supporting the government; and the other, of those who are the recipients of their proceeds, through disbursements, and who are, in fact, supported by the government; or, in fewer words, to divide it into taxpayers and tax consumers (Calhoun, 1992 [1810]).

Calhoun's deeper concern was how to construct a constitution that would constrain political behavior and preclude the persecution of the minority, those who pay taxes, by a majority, tax spenders or those who receive benefits. It was in this context that he wrote:

> There is no difficulty in forming government. It is not even a matter of choice, whether there shall be one or not. Like breathing, it is not permitted to depend on our volition. Necessity will force it on all communities in some one form or another. Very different is the case as to constitution. Instead of a matter of necessity, it is one of the most difficult tasks imposed on man to form a constitution worthy of the name; while, to form a *perfect* one—one that would completely counteract the tendency of government to oppression and abuse, and hold it strictly to the great ends for which it is ordained—has thus far exceeded human wisdom, and possibly ever will (Calhoun, 1992 [1810]).

Calhoun famously developed a theory of concurrent majorities, a constitutional order in which a majority of the federated units had to vote to approve the central government's action. This had been a feature of the earlier Articles of Confederation.

Calhoun's older contemporary and Founding Father James Madison had similar worries as he struggled over the rights of suffrage. On the one hand, restricting the right to vote to those who own property risks oppression of the "rights of persons" and "violates the vital principle of free Govt. that those who are to be bound by laws, ought to have a voice in making them" On the other hand, granting the vote to those who do not own property risks oppression of a propertied minority by an unpropertied majority. Madison writes:

> And whenever the Majority shall be without landed or other equivalent property and without the means or hope of acquiring it, what is to secure the rights of

> property angst. The danger from an equality & universality of suffrage, vesting compleat power over property in hands without a share in it: not to speak of a danger in the mean time from a dependence of an increasing number on the wealth of a few? (Madison, 1987 [1821])

Madison thought through and proposed various voting strategies to try to balance these conflicting ideals, such as dividing the rights of suffrage between branches of government and differentiating the size of electoral districts and the length of legislators' terms (Madison, 1987 [1821]).

At the time Calhoun and Madison wrote, the U.S. Constitution still contained Article One, Section 9, Clause 4, the so-called apportionment clause, requiring that "No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken." Though subsequently altered, the 1810 Constitution required that the burden of total federal taxes collected from a particular state be proportional to that state's share of the nation's population. At the time, there were no income taxes. The 1913 Sixteenth Amendment changed this. It reads: "The Congress shall have power to lay and collect taxes on income, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration." While granting the power to tax income, the Sixteenth Amendment eliminated the apportionment constraint and amplified the likelihood that a large number of citizens could become free riders in a grand redistribution game. This was one of the basic concerns of Calhoun and Madison.

The America of Calhoun and Madison's era and the America of today are obviously two very different nations and cultures. In more recent decades, dramatic growth in federal government redistribution activities occurred during and after the Great Depression (1929-42) and then in conjunction with the Great Society programs that emerged in the 1960s. We note that these high government growth episodes were a product of presidential leadership, which is to say, the two programs were sold as providing benefits to a large share of, if not all, Americans. Spurred by the build-up of Great Depression and Great Society programs, the share of the federal budget devoted to income security, labor services, health, and Social Security rose from 23.4 percent in 1962 to 61.4 percent in 2010.[4] In short, taxpayer and tax spender activity grew massively.

In the spirit of adding an element of recipient accountability to the large level of welfare expenditures, Milton Friedman put forward his negative income tax idea (1962). Friedman argued that it would be more efficient for transfers to be made in cash rather than in kind. Funds that could buy food could replace funding to subsidize food stamps. Due to a low-income threshold for triggering receipt of a check from the federal government, income-targeted individuals and families could make their own expenditure decisions about how to find happiness. But Friedman was well aware of Calhoun and Madison's concern.[5] After describing how his negative income tax program could work, he noted:

> The major disadvantage of the proposed negative income tax is its political implications. It establishes a system under which taxes are imposed on some to pay subsidies to others. And presumably, these others have a vote. There is always the

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[4] The specific budget components are health, income security, labor and social services, Medicare, and Social Security. The shares here are calculated from U.S. Office of Management and Budget data, http://www.whitehouse.gov/omb/budget/fy2011/assets/hist.pdf. For more on this, see Lipford and Slice (2007).

[5] Friedman notes earlier recognition that those on welfare could form an interest group that would lobby successfully for expanded benefits: "Writing about a corresponding problem—British old-age pension—in 1914, Dicey said: 'Surely a sensible and benevolent man may well ask himself whether England as a whole will gain by enacting that the receipt of poor relief, in the shape of a pension, shall be consistent with the pensioner's retaining the right to join in the election of a Member of Parliament.'

"The verdict of the experience in Britain on Dicey's question must as yet be regarded as mixed. England did move to universal suffrage without the disenfranchisement of either pensioners or other recipients of state aid. And there has been an enormous expansion of taxation of some for the benefit of others, which must surely be regarded as having retarded Britain's growth, and so may not even have benefited most those who regard themselves as on the receiving end" (Friedman, 1962, 194).

> danger that instead of being an arrangement under which the great majority tax themselves willingly to help an unfortunate minority, it will be converted into one under which a majority imposes taxes for its own benefit on an unwilling minority. Because this proposal makes the process so explicit, the danger is perhaps greater than with other measures. I see no solution to this problem except to rely on the self-restraint and good will of the electorate (Friedman, 1962, 194).

Today, self-restraint on the part of the electorate in the United States is hardly evident. Due to the expansion of the welfare state and tax policies that exempt low-income earners and grant a host of credits and deductions to many others, a substantial share of the U.S. population now receive government benefits and pay virtually no federal taxes (Murray, 2010).

Data on the share of taxpayers who pay federal taxes and the general distribution of federal-tax liability are shown in Table 1 for the years 1979 to 2007. As indicated, Mr. Friedman's concerns were well placed.

Table 1. Shares of Federal Taxes Paid by Household Income, 1979-2007

	Total Federal Taxes				Individual Income Taxes				Social Insurance Taxes		
Year	Bottom 40%	Top 10%	Top 1%		Bottom 40%	Top 10%	Top 1%		Bottom 40%	Top 10%	Top 1%
1979	9.3	40.7	15.4		4.1	48.1	18.3		17.0	18.5	1.3
1980	9.0	40.0	14.2		4.3	47.6	17.4		16.5	19.1	1.4
1981	9.1	38.6	12.9		4.6	46.6	16.3		16.2	19.9	1.6
1982	9.2	38.0	12.8		4.2	47.6	17.7		15.4	21.2	2.0
1983	9.1	39.0	14.0		4.0	49.1	19.6		14.9	21.8	2.0
1984	9.6	39.3	14.4		4.4	49.9	20.7		15.4	21.4	2.0
1985	9.5	39.5	14.8		4.2	50.5	21.2		15.2	21.6	1.9
1986	8.9	41.6	17.1		3.9	53.4	24.6		14.9	21.6	1.9
1987	8.3	42.2	16.2		2.8	54.7	23.5		14.1	22.0	2.1
1988	8.1	43.2	18.1		2.5	56.3	26.6		14.4	22.0	2.1
1989	8.0	42.5	16.7		2.1	55.3	24.3		14.6	22.0	2.2
1990	8.7	41.7	16.2		2.9	54.3	23.8		15.1	22.2	2.2
1991	8.5	41.7	15.7		2.1	54.5	23.4		14.6	24.0	2.8
1992	7.9	43.6	17.5		1.6	57.2	26.2		14.1	24.0	2.7
1993	7.6	44.9	18.7		1.3	58.4	27.6		14.0	24.6	2.9
1994	7.1	45.6	19.4		0.1	59.3	27.8		13.8	25.3	3.7
1995	7.1	46.6	20.1		-0.1	60.8	29.0		14.5	24.8	3.5

1996	6.6	48.3	21.8		-0.5	62.9	31.4		14.5	24.8	3.6
1997	6.5	49.3	22.7		-0.3	63.7	32.3		14.7	24.8	3.7
1998	6.3	49.9	23.3		-0.8	65.4	33.5		14.8	24.5	3.7
1999	6.3	51.0	24.3		-0.6	66.7	35.0		14.9	25.0	4.0
2000	5.9	52.2	25.5		-0.5	67.7	36.5		14.4	25.6	4.3
2001	5.9	50.0	22.7		-2.0	67.7	34.4		14.5	26.0	4.0
2002	5.9	49.2	21.4		-2.9	67.5	33.0		14.3	26.4	3.9
2003	5.5	50.4	22.9		-4.1	69.6	34.6		14.1	26.6	3.9
2004	5.3	52.5	25.4		-3.8	70.8	36.7		14.2	26.2	4.0
2005	5.0	54.8	27.7		-3.8	72.7	38.8		14.6	25.9	3.9
2006	4.9	55.4	28.4		-3.6	72.8	39.1		14.7	25.7	4.0
2007	5.2	55.0	28.1		-3.3	72.7	39.5		15.6	25.4	4.1
Source: Congressional Budget Office											

The share of total federal taxes paid by the bottom 40 percent of households has fallen from 9.3 percent in 1979 to 5.2 percent in 2007, while the shares of the tax burden borne by the top 10 percent and one percent, respectively, have risen steadily. The trends for the income tax are even more sharply divergent, with the bottom 40 percent receiving sufficient refunds that their income tax liability has been negative since 1995. The top 10 percent and one percent pay over 70 percent and just under 40 percent of total income taxes, respectively. The trend for social-insurance taxes is similar, though significantly less pronounced.

3. The Fiscal Commons Problem

The concerns expressed by Friedman and before him by Calhoun and Madison were later described and analyzed as a fiscal commons problem by Wagner (1992, 2002) and Roudla (2010). In the simplest possible way, the budgetary process is seen as a pasture that produces annually a certain amount of fiscal grass that can harvested. Specialized politician-shepherds work on the pasture, but there are no fences on the commons other than those erected by the politicians who “graze” for their constituencies. Each politician, like each shepherd on a traditional commons, has an incentive to get as much grass as possible, even if it means borrowing from the future. Any rules that may be devised by the grazing politicians can be revised by future politicians. Rationing fiscal activity requires constitutional change and even that can be altered. In short, as John C. Calhoun and Milton Friedman surmised, there is no apparent final solution to the fiscal grazing problem.

While seeking to obtain as much of the fiscal bounty as possible for a home district or state, each grazing unit also seeks to reduce contributions to the fiscal pasture, thus compounding the problem. As Buchanan and Wagner (1999) point out, as early as 1896 Knut Wicksell, wrestling with the fiscal commons problem, suggested that the total costs of any proposed expenditure program should be apportioned among the individual members of the political community. These were among the institutional features that he thought necessary to make reasonably efficient fiscal decisions in a democracy. Weingast, Shepsle, and Johnson (1981), examining the modern U.S. fiscal process, make the point that because of the U.S. representative system there will always be a tendency for each representative to seek to earmark as much for his unit as possible—yielding concentrated benefits relative to the nation—and to disperse the costs across the entire nation. As Brubaker puts it, “Overall, the process creates incentives to strive strenuously to avoid contributions to the common pool while striving equally strenuously to make withdrawals from it” (Brubaker, 1997, 356).[6]

[6] Additional complexities of life on the political commons are described by Weingast and Marshall (1988). They point out the high transactions costs associated with vote trading due to the asynchronous nature of the contracts; one politician may vote in time period one with a vote-promising colleague, later to find his partner reneging on the deal or being no longer in office. They see the formation of committees and party leadership as attempts to introduce constraints to avoid over and under-grazing.

Moreover, effort by political agents to maximize the net value of federally funded gains for their districts and states leads to a preference for district or state-specific transfers. The politician has more to gain in probability of re-election when he brings home a new dam, federal building, or reconstructed harbor than when he votes as one among many to pass a new welfare entitlement. Government-funded goods that provide simultaneously unrationed benefits to all citizens, of course, are like public goods, broadly considered, in that those goods are available to all citizens and one person's consumption of the good does not affect another's ability to obtain the same benefit. But government action that funds a new harbor in a particular Congressional district can lead to economic development, more employment, and higher levels of consumption of private goods by well-identified people. Political production of rents that can be appropriated by voters at home are more valuable for re-election purposes than the production of public goods whose benefits cannot be packaged and appropriated.

Mukherjee (2003) examines empirically 110 countries and focuses on how the character of taxpayer-funded projects changes when there are more grazing units, specifically in his case, more (political) parties. Expenditures on those goods and activities that provide unrationed benefits across all citizens—such as retirement benefits under Social Security—decrease when there are more grazing units on the commons. Expenditures for targeted welfare and private benefits—such as special tax treatment for specific firms and industries—increase with more parties. Applied to the United States, Mukherjee's findings suggest that gains in district or state-specific benefits yield greater re-election certainty.

At the same time, presidential politics, which are broader in scope, promote the expansion of benefits available to all citizens. As previously noted, presidents were the champions of the New Deal and its landmark Social Security program and the Great Society, with its centerpieces of Medicare and Medicaid. The expansion of Medicare to include prescription-drug benefits was also a presidential initiative. The result is a two-pronged expansion of government. Legislators graze the commons for the benefit of their specific constituents, while presidents graze for the benefit of all citizens.

The law of demand applies in both cases. If citizens in particular settings can gain taxpayer-funded benefits and avoid the burden of paying taxes themselves, then the demand for the political agents' services will rise even more. Similarly, the demand for broad-based benefits increases when presidents seek national electoral support and when broad-based interest groups that transcend legislative boundaries (e.g., American Association of Retired Persons) arise to secure and expand more broad-based benefits. When the financing of specific or broad-based benefits is uncertain, as is the case when the tax system becomes so complex that no ordinary mortal can identify who is paying for what, Wicksell's recommended constraint is no longer operational. The ability to shift the tax burden to the future compounds the problem. The result can be fiscal illusion, where taxpayers think they are getting services without paying for them when, in fact, the burden may fall on future generations (Wagner, 1976). As shown earlier in Table 1, situations can arise where a growing share of the population actually pays few or no taxes. Those suffering from fiscal illusion join forces with the non-payers in lobbying for expanded government programs.

The expansion of government spending in the absence of awareness of who pays and other constraints contributes to the rise of deficits. An examination of institutional constraints and policies that govern fiscal processes across countries tells us that constraints, such as balanced-budget rules and transparency, matter in limiting the growth of deficits (Alesina and Perotti, 1999; Alesina, Hausmann, et al., 1999). Other empirical research tells us that once deficits become institutionalized, stabilization will not arrive until crises of sufficient magnitude force elected officials to come to grips with their spending habits (Alesina and Drazen, 1991). Indeed, as explained below, the United States' experience with balanced budget and pay-go rules is not encouraging.

4. Avoiding a Tragedy on the Fiscal Commons

On April 13, 2011, President Obama in a speech at George Washington University unveiled the broad outlines of his plan to reduce the yawning federal deficit (Remarks by the President on Fiscal Policy, 2011). President Obama made no mention of the growing dichotomy that separates U.S. taxpayers from tax spenders and the relative merits of broadening the tax base and flattening the tax rate paid by all income earners, which was one of the key recommendations made by his deficit review commission. Instead, the president called for higher taxes to be paid by higher income Americans and emphasized the importance of continuing entitlement funding for middle and low-income earners. In summarizing key elements of his plan, President Obama put it this way:

> I say that at a time when the tax burden on the wealthy is at its lowest level in half a century, the most fortunate among us can afford to pay a little more. I don't need another tax cut. Warren Buffett doesn't need another tax cut. Not if we have to pay for it by making seniors pay more for Medicare. Or by cutting kids from Head Start (Remarks by the President on Fiscal Policy, 2011).

Apparently, President Obama means the share of income paid in taxes when he refers to the “tax burden on the wealthy.” However, as shown in Table 1, when the tax burden on the wealthy is defined as the share of federal taxes paid, the burden is higher than ever for the years considered and continues to rise.

Following the pattern of previous unsuccessful efforts to break the deficit habit by imposing rules to ration the fiscal commons, President Obama set a target with failure penalties to bring down the share of GDP represented by the federal debt by 2014. President Obama said:

> If, by 2014, our debt is not projected to fall as a share of the economy—if we haven’t hit our targets, if Congress has failed to act—then my plan will require us to come together and make up the additional savings with more spending cuts and more spending reductions in the tax code. That should be an incentive for us to act boldly now, instead of kicking our problems further down the road (Remarks by the President on Fiscal Policy, 2011).

As logical as this may sound, the track record for limiting action on the commons is not very good.[7] Among past efforts to constrain deficits, the Balanced Budget and Emergency Deficit Control Act of 1985, better known as the Gramm-Rudman-Hollings Act (GRH), is the most rigorous effort. When the bill passed in 1985, the federal deficit stood at $212 billion or 5.4 percent of GDP, about half the current deficit share of GDP (*Economic Report of the President*, 1989, 94-95). The legislation called for balancing the books by 2001 and set annual deficit-reduction goals. If the goals were not met, the legislation mandated trigger points ($10 billion over the required $36 billion annual reduction) that sequestered

[7] For a survey of efforts in the 1970s and 1980s, see Fischer (1985), where it is noted that rules that can be broken by the rule makers have not been successful. For a more recent review that draws similar conclusions, see de Rugy and Bieler (2010). Part of this discussion draws on Yandle (2010).

budgeted funds so that they could not be spent. The handcuffs looked golden, but the key that locked them was left in the legislators' pocket.

As it turns out, there was some initial progress with GRH, but not enough. Close examination of the legislation reveals why. First, most "mandatory" spending, such as spending on Social Security, Medicaid, and food stamps, was exempt. In total, approximately two-thirds of total spending was exempt from sequestration, resulting in untenable pressure on the third of the budget that was subject to sequestration (Davis, 1997). Second, hardly anyone liked sequestration, and only two partial sequestrations were implemented: one for $11.7 billion in 1986 and another for $4.6 billion in 1989 (Doyle and McCaffery, 1991). By 1990, the deficit was almost as large as it had been in 1985 when the process started (Reischauer, 1990; Gramlich, 1990).

Congress and the president again undertook deficit reduction efforts in 1990 with the Omnibus Budget and Reconciliation Act. The act targeted a deficit reduction of $500 billion over five years, but from the beginning it allowed these targets to be revised if tax revenues were lower than expected or if expenditures were greater than expected (Doyle and McCaffery, 1991). Further, emergency spending was exempt from cuts, and military operations in the Persian Gulf and Kosovo were considered "emergencies." In his review of the political struggle that ensued between a president who wanted more for defense and a Congress that wanted more for domestic programs, Schick (1992) concludes that the "president got more for defense, the Democrats got more for domestic programs, and both sides celebrated their gutsy decision to curtail the deficit" (Schrick, 1992, 33).

Later, the Clinton administration acted to rein in the deficit with the

Balanced Budget Act of 1997. The act, passed by a margin of two votes in the House and one vote in the Senate, replaced GRH with higher taxes, capped Medicare expenditures, and brought welfare reform that sharply reduced welfare expenditures (*2000 Economic Report of the President*, 52-7). The higher GDP growth and higher tax revenues that resulted from a recovering economy accommodated by deeply cut capital gains taxes converted deficits to a surplus in 1998. For the first time in nearly 30 years, the U.S. economy was in the black, and future prospects were bright. There was a pot of gold at the end of the rainbow. The *2001 Economic Report of the President* optimistically but with significant inaccuracy described the picture this way:

> Where Federal deficits were once projected to grow from 4.6 percent of GDP in 1992 to double-digit percentages by 2009, the current outlook is for a long string of surpluses in excess of 2 percent of GDP. The national debt, which had reached almost half of GDP in 1992 and was projected to surpass GDP by 2009, has instead begun to decline and, under June 2000 projections, will be eliminated before the middle of the next decade (*2001 Economic Report of the President*, 80).

This forecast was doomed to fail. Federal outlays as a share of GDP have risen from 22 percent in 1992 to 25.3 percent for 2011 (*FY 2012 President's Budget*, 2011). The share of spending devoted to welfare activities has risen from 51 percent of the budget in 1992 to 61 percent in 2010. Calhoun's taxpayers are more heavily burdened, and tax spenders are more generously supported.

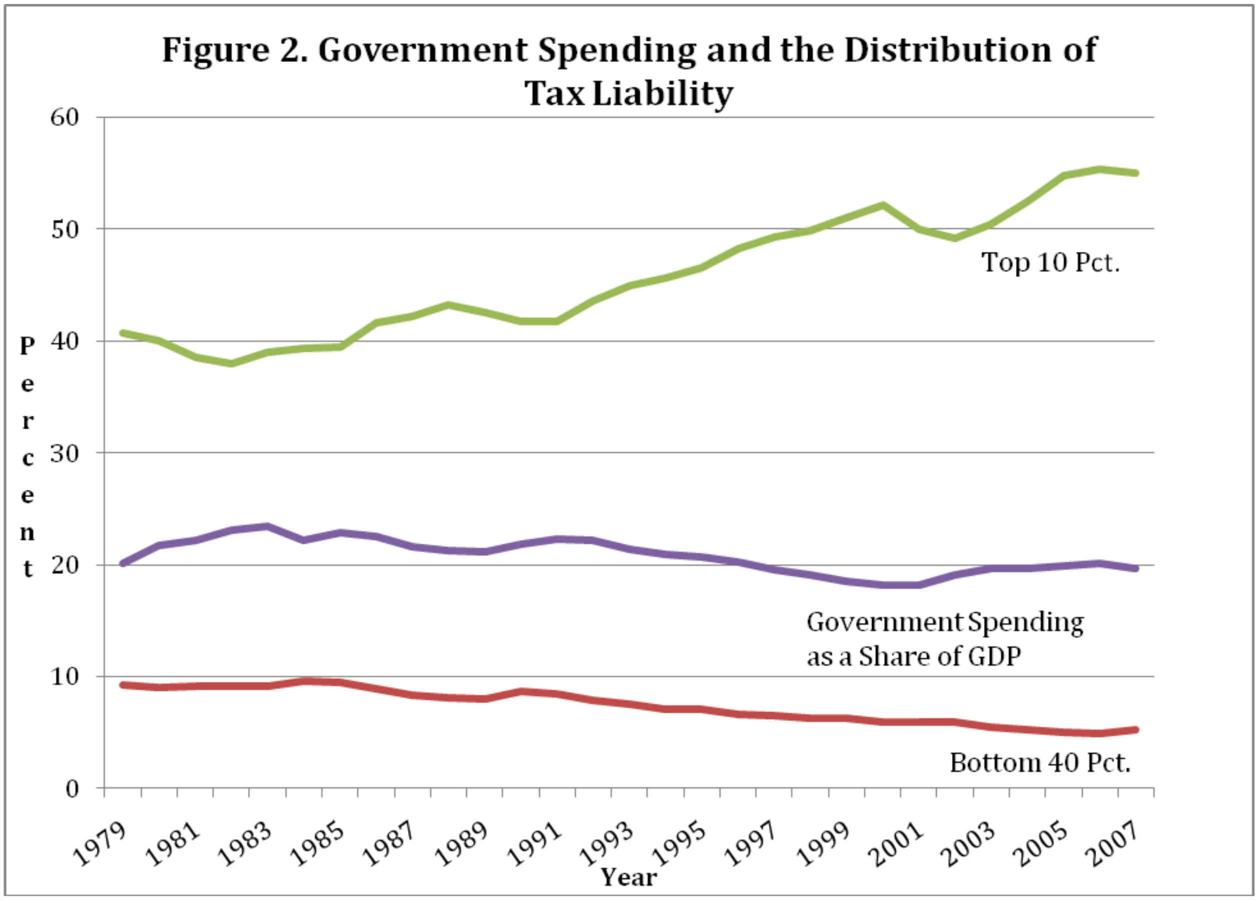
Getting beyond the deficit habit requires more than setting spending constraints that cannot be met and raising tax rates that will not generate more revenue. To deal with the fundamental problem, Congress and the president must recognize the simple dynamics of a fiscal system where there are more tax spenders than there are taxpayers. As painful as it may be—and any reform will be painful—the current system that seeks to redistribute income from a small share of income earners to a growing share of the population must be reformed. In the words of the National Commission on Fiscal Responsibility and Reform (2010), better known as the president's deficit commission, steps must be taken to "lower the rates, broaden the base, and cut tax expenditures."

5. Assessing the Evidence

As shown in Table 1, the Congressional Budget Office provides data on the distribution of federal tax liabilities by household quintile from 1979 to 2007. The data are broken down into three categories relevant to this paper's purposes: total federal taxes, individual income taxes, and social insurance taxes. Because the data span only 29 years, the trends and observed relationships—and any inferences drawn from them—must be interpreted cautiously. That caveat being noted, this paper proceeds to the examination of the data.

5.1. Trends in Total Government Spending, Debt, and Entitlement Spending as a Share of GDP

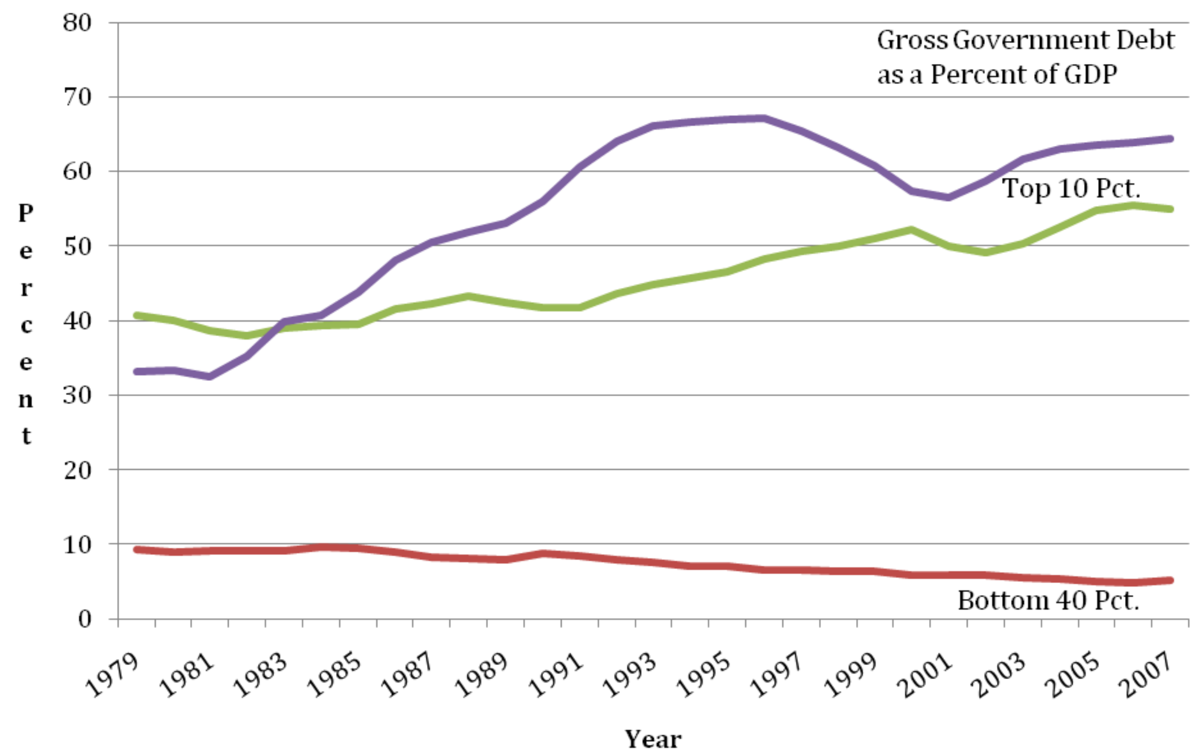
Figure 2 shows the trend in total federal spending as a percent of GDP and the share of total federal taxes paid by the bottom 40 percent of households and the top 10 percent of households over the 1979 to 2007 period.



Perhaps surprisingly, government spending as a share of the total economy has remained relatively constant, averaging just under 21 percent over the years considered. Neither the steadily rising share of total federal tax liabilities accounted for by the top 10 percent nor the steadily falling share of total federal tax liabilities accounted for by the bottom 40 percent is positively correlated with total spending, a finding counter to expectations.

Government debt shows more obvious trends. As shown in Figure 3, the increase over time in the gross government debt-GDP ratio has roughly corresponded to the rising share of total federal taxes paid by the top 10 percent and the falling share of taxes paid by the bottom 40 percent.

Figure 3. Government Debt and the Distribution of Tax Liability



While the three series rise and fall at uneven rates, by contrast for the years 1979 to 2007 the share of federal tax liabilities for the top 10 percent rose from 40.7 percent to 55.0 percent. The share of federal tax liabilities for the bottom 10 percent fell from 9.3 percent to 5.2 percent. The gross federal debt as a share of GDP rose from 33.2 percent to 64.4 percent. Examining simple linear trends between these variables, reveals that a decrease in the tax liability for the bottom 40 percent of one percentage point is associated with an increase in the debt-GDP ratio of almost two percentage points. An increase in the tax liability of the top 10 percent of one percentage point is associated with an increase in the debt-GDP ratio of just over one-half a percentage point.[8] (The linear trends reported here

[8] References to simple linear trends throughout this section refers to coefficients estimated from multiple regression analysis. In the multiple regression analysis, we held constant two important variables: (1) the

and throughout this paper indicate correlation and not necessarily causation. With the exception of the prior analysis of government spending, however, the correlations are generally consistent with the expectations.)

A look at entitlement spending—which is defined as the sum of spending on Social Security, Medicare, health, and income security—reveals a tighter correlation with the distribution of tax liability.[9] Entitlement spending as a share of GDP is measured in the right-hand vertical axis in Figure 4. It has risen more or less steadily as the share of total federal taxes paid by the top 10 percent has risen and the share paid by the bottom 40 percent has fallen.

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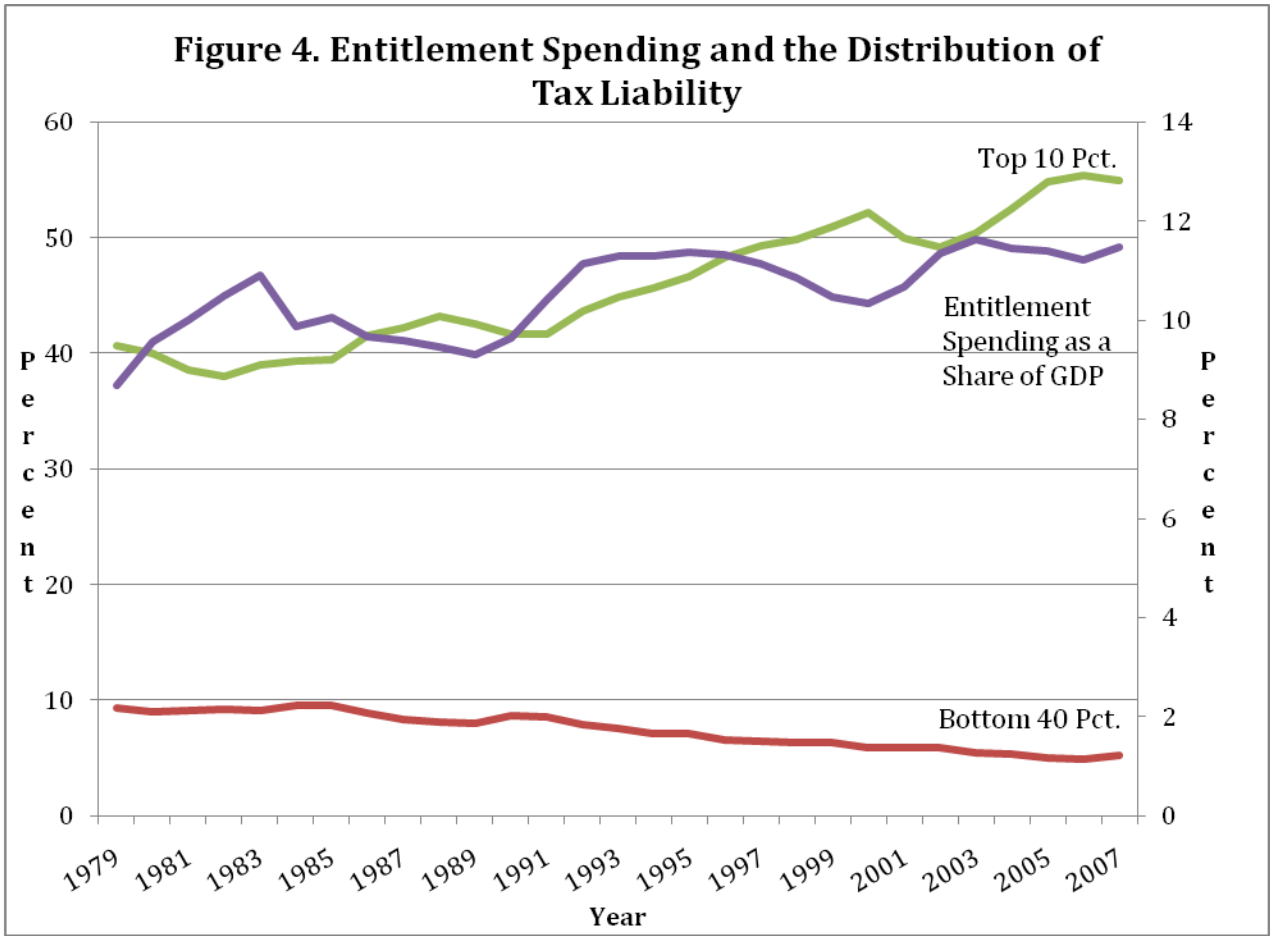
unemployment rate to account for macroeconomic conditions and (2) the share of the population aged 65 and over to account for the age distribution of the population.

[9] Summing these four categories of spending combines benefits for many segments of the population, rich and poor, elderly and young. The point is that citizens who receive government benefits, but who pay little or no taxes to fund those benefits, will demand more benefits, *regardless of their age or personal financial condition*. In other work, we estimated multiple regression equations for Social Security plus Medicare spending as a share of GDP and for Health plus Income Security spending as a share of GDP. These separate estimates should account for some demographic differences across the population. In the Social Security plus Medicare estimate, a higher share of social-insurance taxes paid by the top 10 percent of household incomes is associated with higher Social Security and Medicare spending. In the Health plus Income Security estimate, a smaller share of income taxes paid by the bottom 40 percent and a higher share of income taxes paid by the top 10 percent is associated with higher spending on these programs. This paper does not discuss these results to avoid complexity and redundancy.



Specifically, entitlement spending has risen from only 8.7 percent of GDP in 1979 to 11.5 percent in 2007. Again, an examination of simple linear trends is revealing. A decrease of one percentage point in the share of tax liability for the bottom 40 percent is associated with an increase in entitlement spending as a percent of GDP of over one-half a percentage point. A shift in tax liability of one percentage point to the top 10 percent is associated with an increase in entitlement spending as a share of GDP of just under 0.2 percent.

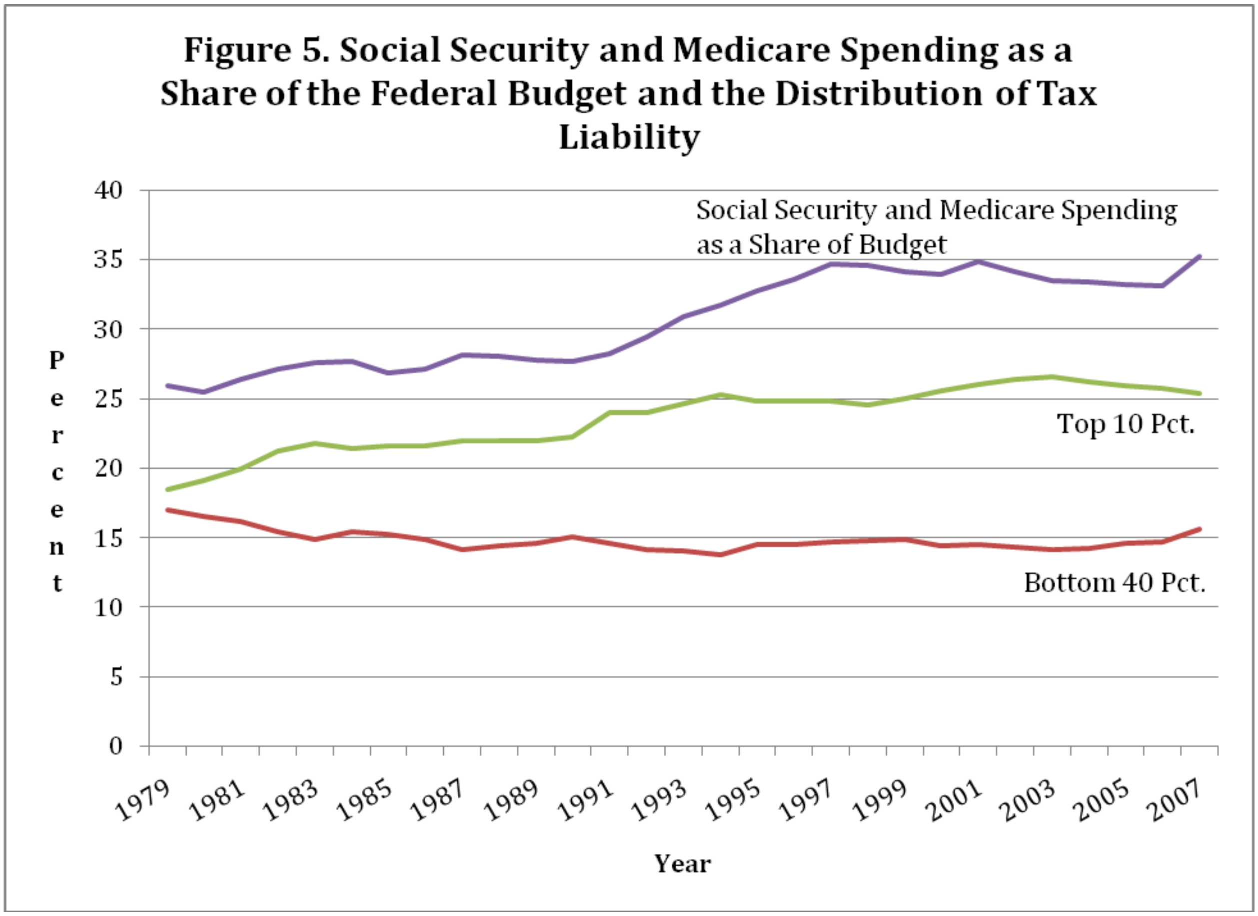
In sum, examination of the data indicate that the shifting of U.S. tax liability from low-income earners to high-income earners is associated with higher gross debt and entitlement spending, though there is no positive correlation with total government spending. Drawing inferences from these trends taken together indicates that shifting the tax liability to fewer and fewer taxpayers to finance benefits for more and more tax spenders results in increased entitlement spending. The result is rapidly increasing government debt.

5.2. Trends in Entitlement Spending as a Share of Budget

An examination of the composition of federal spending sheds additional light on the fiscal effects of shifting tax liability from one group of taxpayers to another group. Consistent with the previous analysis, entitlement spending as a share of budget has grown significantly as the tax liability has shifted from the bottom 40 percent to the top 10 percent.

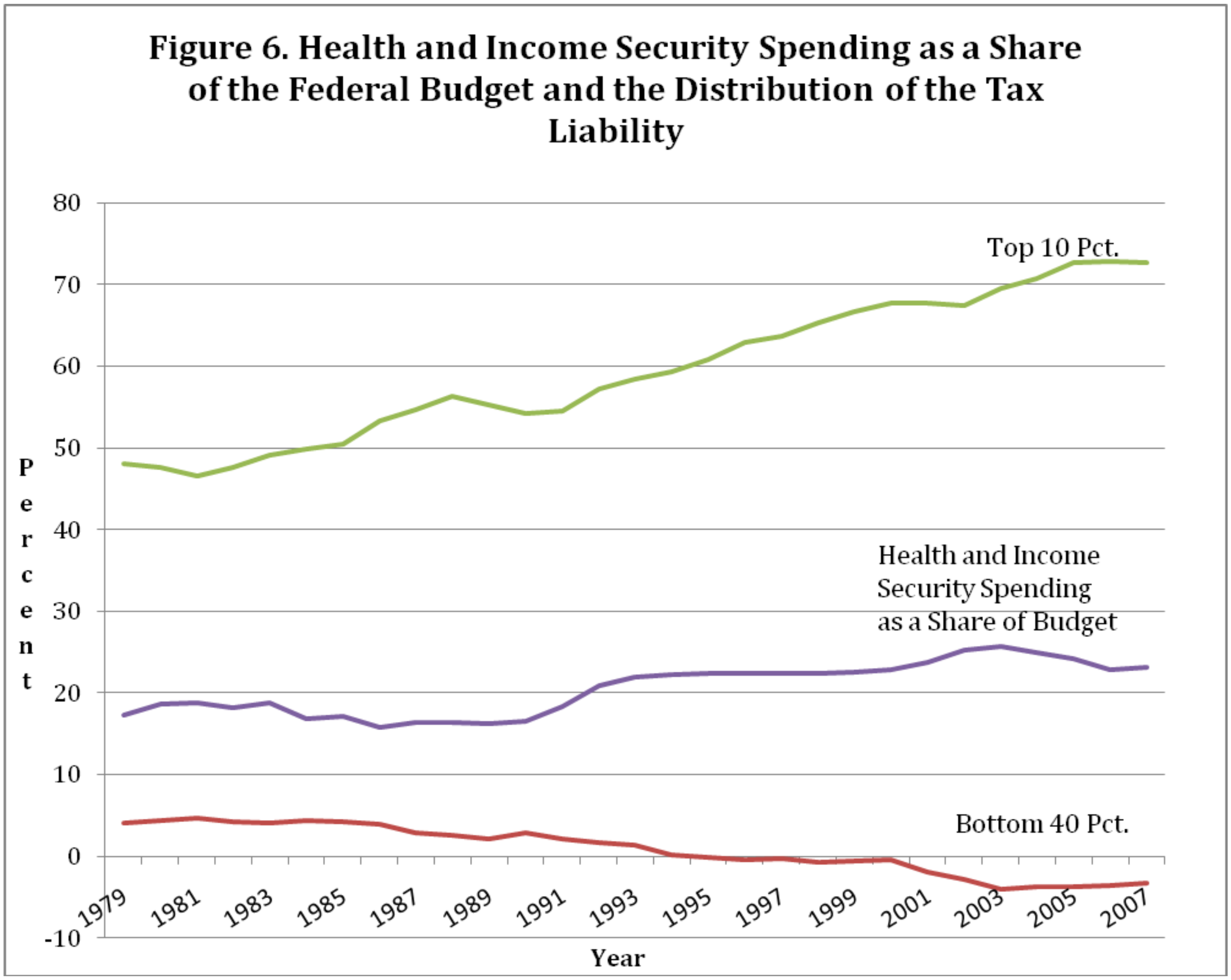
First, consider the major entitlement programs that benefit the elderly—Social Security and Medicare. Figure 5 shows the sum of Social Security and Medicare spending as a share of budget along with the share of social-insurance (not total federal) taxes paid by the bottom 40 percent and top 10 percent of households.

The trends shown are weak, since the change in the distribution of social insurance taxes has been less pronounced than for total federal taxes. While Social Security and Medicare spending as a share of the budget has increased from 25.9 percent in 1979 to 35.2 percent in 2007, the share paid by the bottom 40 percent has only fallen from 17.0 percent to 15.6 percent. The share paid by the top 10 percent has risen from 18.5 percent to 25.4 percent.



An examination of linear trends suggests an effect from the top 10 percent paying more. An increase of one percentage point in the share of social-insurance taxes paid by the top 10 percent is associated with an increase in Social Security and Medicare's share of the budget by over one-and-one-third percentage points.

Health and income-security expenditures show similar results. Figure 6 shows expenditures on health and income security as a share of budget and trends in the share of income taxes (not total federal) paid by the bottom 40 and top 10 percent of household incomes.

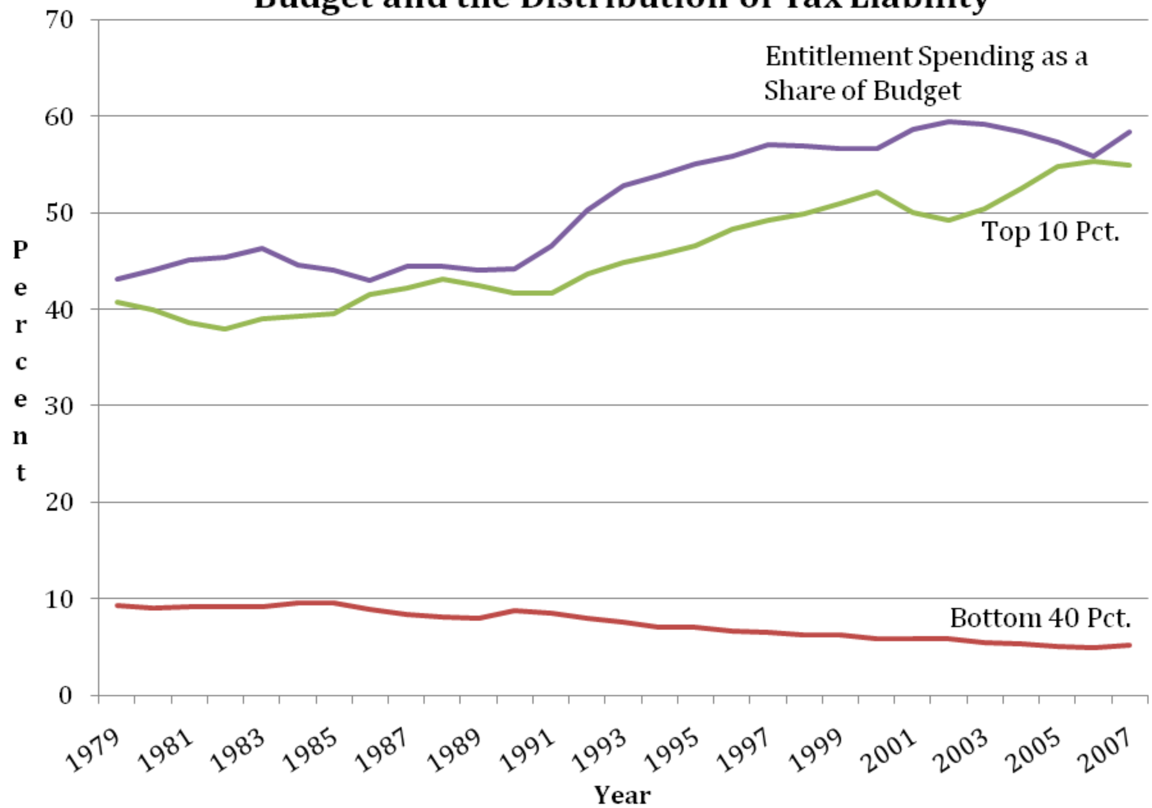


Health and income-security expenditures accounted for 17.2 percent of total spending in 1979 and had increased to 23.2 percent by 2007. The trends in tax liability are most pronounced with income taxes. The bottom 40 percent paid only 4.1 percent of total taxes in 1979 and—because of tax credits—now receive checks from the government equal to 3.3 percent of their household income. Friedman's negative income tax is a reality.

Meanwhile, the share of income taxes paid by the top 10 percent of households has risen dramatically from 48.1 percent to 72.7 percent. When the bottom 40 percent pays one percentage point less, the linear trend analysis indicates health and income-security expenditures increase by more than one percent of the budget. When the tax liability of the top 10 percent rises by one percentage point, health and income-security expenditures account for just under an additional one-half of a percent of the total budget.

Figure 7 combines expenditures on Social Security, Medicare, health, and income security into one sum and compares the sum with trends in total federal taxation.

Figure 7. Entitlement Spending as a Share of the Federal Budget and the Distribution of Tax Liability



As the bottom 40 percent has paid less and the top 10 percent has paid more, entitlement spending has increased from 43.2 percent of the budget in 1979 to 58.4 percent in 2007. The linear trends are quite strong. When the share of tax liability of the bottom 40 percent of household incomes falls by one percentage point, entitlement spending as a share of the budget rises by over four percentage points, a significant margin. The share of entitlement spending in the budget increases by over one percentage point when the top 10 percent of households must pay another percentage point.

6. Conclusions

Summarizing, the examination of the data provides broad support for the ideas and concerns Calhoun and Madison expressed in the early 19th century. Tax policies in the U.S. have skewed the distribution of the tax liability so that a substantial portion of the population pays little or no federal taxes, while a smaller and smaller share of the population is liable for more and more of the taxes. These trends do not appear to raise total spending, but do affect government debt and the programs on which the government spends. As the distribution of tax liability has become more intensified on those with high incomes and less intensified on those with low incomes, the U.S. debt-GDP ratio has risen, as have the ratios of entitlement spending to GDP and the total budget. These results support the contention that if the U.S. is to get its fiscal house in order, the tax laws will have to be changed to broaden the base, just as President Obama's deficit reduction commission has argued.

While the early political theorists of the United States could not have anticipated the country's current fiscal problems, they were hardly ignorant of the possibility. Defaults of the sovereign have been commonplace throughout history. The key is to provide constraints on government spending and deficits. One constraint is a broad tax base, a constraint largely applicable in the United States until the Sixteenth Amendment to the constitution which permitted an income tax without regard to the enumeration of the population. The stage was then set, as Calhoun feared, for the population to divide into taxpayers and tax spenders. While Madison was concerned about the rights of persons and the rights of property, his fear that those without property but with the right to vote would seek to violate the property of others seems well founded.

The evidence presented must be interpreted with care. The time series is short. Nevertheless, trend lines and simple correlations point to the same conclusion: the decreasing share of tax liability borne by low-income households and the increasing share of tax liability borne by high income households is clearly associated with higher government debt and more entitlement spending, both as a share of the total economy and as a share of the total budget. While many factors may affect fiscal outcomes, a fundamental restructuring of the tax code is essential for the United States to bring down its debt, curb entitlement spending, and break the growing government income-transfer habit.

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