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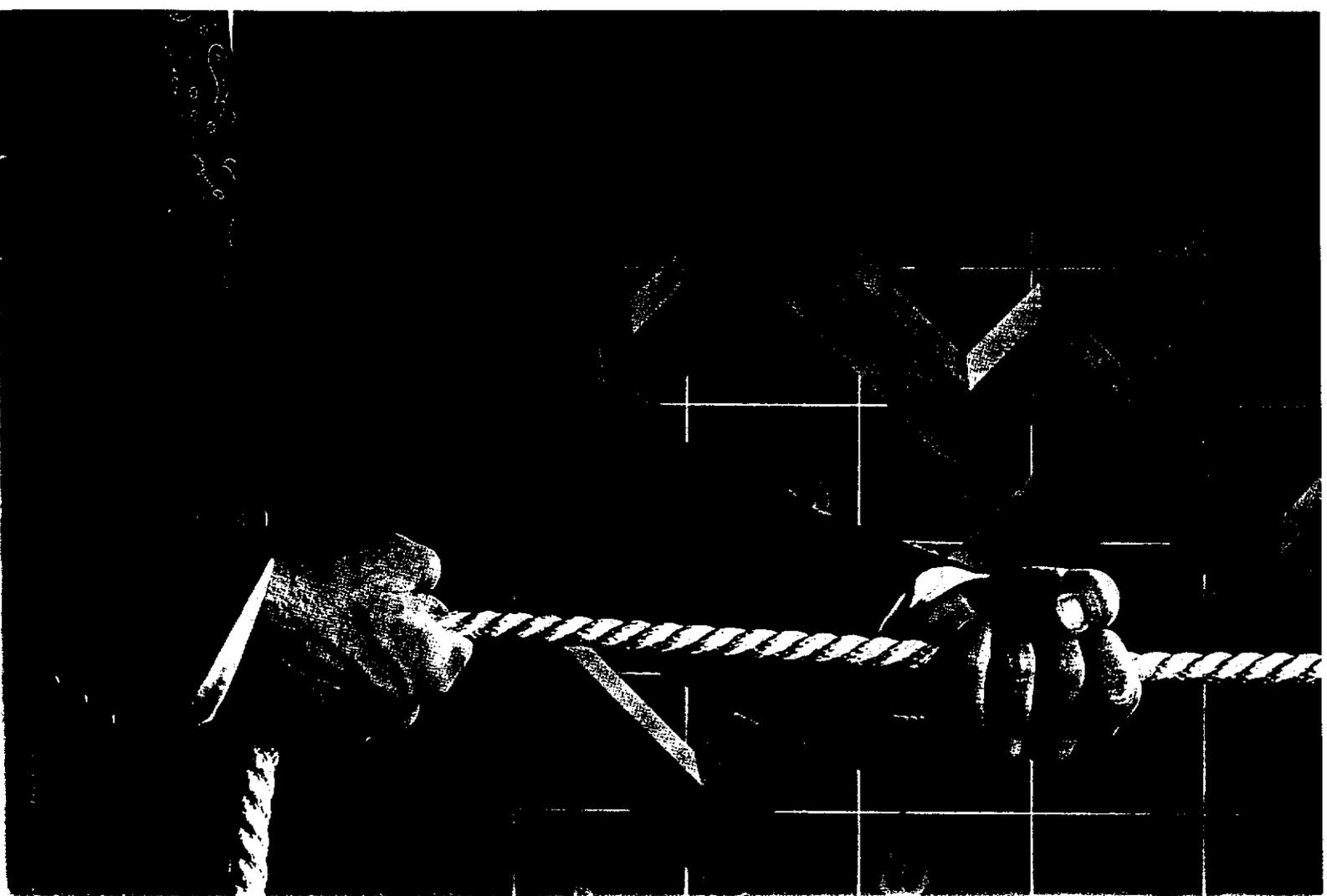
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# TAXES AND ECONOMIC GROWTH

**Should states adopt a safehaven strategy of  
low tax burdens to foster growth,  
capital formation and innovation?**

By Professor Richard Vedder  
Ohio University

September 2001



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## Do Taxes Matter?

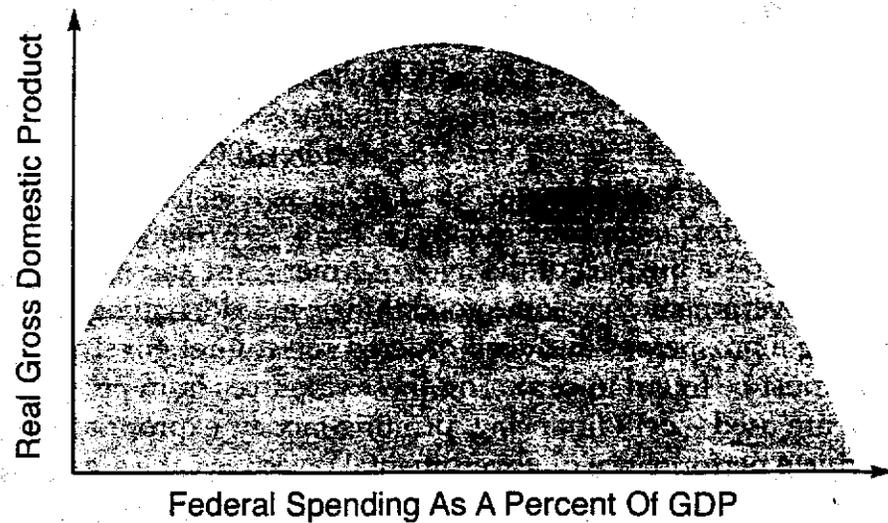
Government is a big part of the lives of Americans, and indeed of anyone living on this planet. Government does some good things; indeed, having a government seems critical to having a prosperous and well-ordered society. Yet governments use resources, and a means must be found in capturing these resources from private uses. While a variety of means are used – debt financing, printing money, expropriating private assets, mandating private performance of governmental objectives, the assessment of user charges– by far the most important way that we pay for government is through taxation.

While this study will concentrate on taxation and its impact on the economy, it is important to keep in mind that taxes are levied to finance governmental spending. When government is non-existent or very small, tax-financed governmental expansion likely is good from the standpoint of creating income for the citizenry: resources are used to establish and enforce laws protecting individual property rights, protecting individuals from destructive behavior on the part of bullies, thieves, and foreign enemies. The government helps finance certain minimal infrastructure needs like roads necessary for trade, and defines and regulates the issuance of money. Virtually everyone but the most radical libertarian would agree that governmental provision of these functions helps develop an exchange economy. Taxes levied when government is extremely small, then, likely increase economic growth by making trade more efficient, providing incentives for people to work, form capital and to innovate. Yet as government grows larger, the law of diminishing returns begins to have an effect. Some spending on roads, national security, police and fire protection, etc., may be of marginal use. More important, governments start to perform welfare functions, redistributing income and wealth from some members of society to others. The taxes needed to finance these expenditures become larger and more burdensome, and may start to have severe disincentive effects. Thus, the original federal income tax, which had rates of one to seven percent and applied only to affluent Americans, had little impact of human economic behavior. Later, however, when marginal tax rates grew as high as 70 or even 90 percent or more, people altered their behavior to avoid an excessive tax burden. The new government spending added less to the national output and may have even reduced it, while the taxes reduced work effort, capital formation, and innovation. Thus tax-financed spending began to have adverse effects on the prosperity of persons.

All of this is illustrated in Figure 1. When government absorbs little or none of the national output, public sector expansion expands that output. When government grows large, however, its expansion crowds out productive private activity and actually retards economic growth. The taxes used to finance most government activity then have a more negative effect than any benefits provided by governmental services.

**Figure 1.**

**Government  
Spending And  
The Economy**



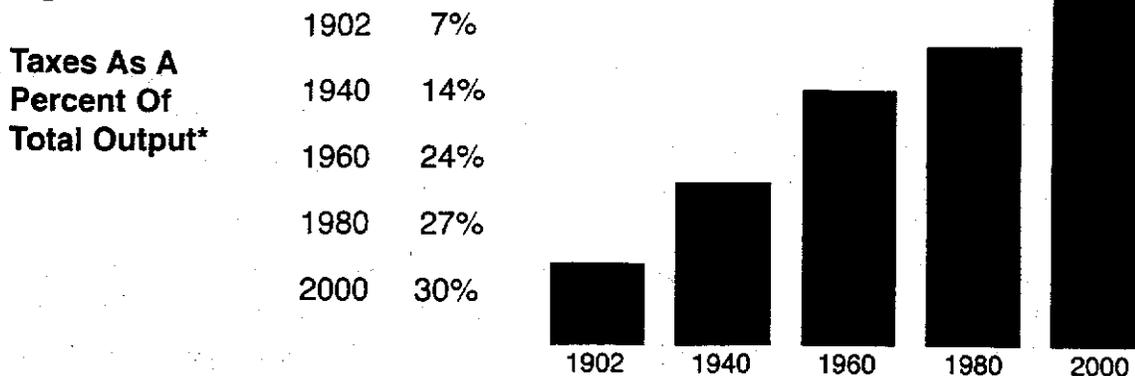
A number of studies confirm the accuracy of Figure 1 (Vedder and Gallaway 1998, Vedder and Gallaway 1999a, Gwartney and Lawson 1998). The current size of government in the United States is significantly larger than the size which would maximize the income available for each citizen. In western Europe, with even larger welfare states than in America, governments appear to be dramatically oversized from the standpoint of maximizing economic opportunity. Similarly, Lowell Gallaway and I (1998) have found that state and local government spending, mostly tax-financed, is now substantially larger than the income-maximizing level. Reducing government spending, and the corresponding taxes, should increase output.

These findings imply that in our contemporary era of large government, high taxes lead to lower economic growth. When taxes go up, the growth in the income of taxpayers should decline. In fact, several decades of studies by economists confirm the proposition that the higher the level of taxation, the lower the rate of economic growth, holding non-tax factors constant. This reversed earlier conventional wisdom, such of that of distinguished public finance expert John F. Due, who, speaking about industrial location of firms, opined that studies "suggest very strongly that the tax effects cannot be of major importance" (Due 1961). By the later 1970s, however, research was reaching different conclusions, in part because the negative effects of taxes grew as the tax burden itself grew larger.

The growth in tax burden is indicated in Figure 2, showing combined federal, state, and local taxes as a percent of personal income for various dates. Note the large growth in the first generation after World War II, leading economists to increasingly conclude that taxes indeed do matter.

Economists realized that state and local governments provided an excellent laboratory to evaluate tax policy, since there were 50 different states and thus 50 different tax systems. In what may have been the first empirical analysis, done by economists at the

**Figure 2.**



Source: U.S. Department of Commerce, Author's Calculations

\* Excludes non-tax sources of revenues, such as fees and user charges.

Harris Bank in Chicago, Genetski and Chin (1978) used a simple regression model to show that economic growth was negatively correlated with changing rates of state and local taxation, a finding replicated and expanded upon by this author in two studies for the Joint Economic Committee of Congress (Vedder 1981, Vedder 1995). Meanwhile other economists were showing how high taxation had adverse impact on states or territories such as Illinois (Heins 1976), Puerto Rico (Canto and Laffer 1979) and Massachusetts (Kadlec and Laffer 1981). The scholarly studies were reinforced by articles and books written for broader audiences Gilder (1981), Bartlett (1980), Adams (1984), Wanniski (1978), Brookes (1982).

This early research became increasingly accepted as a consequence of new refinements and extensions of the tax-growth literature in the mid and late 1980s. Helms (1985), for example, said that the impact of taxes depended on how they were used, with expenditures on welfare, for example, having a negative impact. Mofidi and Stone (1990) reached similar conclusions. Benson and Johnson (1986) showed that taxes had lagged negative effects, with the adverse impact being realized often after about three years. Canto and Webb(1987) concurred, roughly, with Helms work Other studies confirmed the tax-growth relationship using other data sets or methodologies, albeit with some variation in conclusions as to the strength of the relationship (e.g., Yu, Wallace and Nardinelli 1991). Other studies showing negative effects of government on growth stressed government spending instead of taxes (Scully 1989, Vedder 1993).

Still more studies showed that a progressive income tax rate structure caused more damaging economic effects than a flatter rate tax schedule (Vedder 1985, Vedder 1986, Hunter and Scott 1986), extending a pioneering observation of Romans and Subrahmanyam (1979). The early work using U.S. state data were confirmed by numerous international studies as well (Marsden 1983, Reynolds 1985). Scully(1988) in particular showed that governmental institutional obstacles (e.g., substantial regulation, restrictions on imports) along with taxes hurt growth. The studies became larger and more sophisticated with

time (e.g., Engen and Skinner 1999; Newell and Symons, 1993, Barro 1989, Koester and Kormedi 1989), Rebello 1991). Van Sinderen (1993) reached a conclusion somewhat representative of these studies:

“Balanced budget reductions in taxes on wages and profits exert favorable effects on employment and growth. The relative impact depends on the specific government outlays and taxes which are cut back. In the long run, tax revenue decreases less than the amount of the initial tax reduction.

Cashin (1995) found that each one percent increase in taxes as a percent of total output lowers output per worker by about two percent. To be sure, he observes positive effects of spending from taxes, but typically the positive spending effects are only about one-half as large as the negative tax effect, which is about the same thing as saying that private sector spending is twice as productive as public sector outlays. A new study by Holcombe and Lacombe (2001) compares counties on both sides of state borders - and observes that high taxes impede growth.

The research has continued up to the present, generally confirming the basic proposition that taxes have adverse effects on economic change. Much of it has been done at America's premier economic research center, the National Bureau of Economic Research (NBER). Its president, Martin Feldstein of Harvard (1997) concluded that “the dead-weight burden caused by incremental taxation....may exceed one dollar per dollar of revenue raised, making the cost of incremental government spending more than two dollars for each dollar of government spending.” A recent NBER study (Carroll et al. 2000) concluded “this finding is consistent with the view that raising income tax rates discourages the growth of small businesses.” James Hines (1996), in a paper originally written for the NBER but published also in the prestigious *American Economic Review*, found that state and local taxes impacted on the location of foreign investment in America.

Europeans are similarly observing adverse effects of taxation. A Spanish economist writing for a British research center concluded, speaking of government taxation, that “there is evidence of a sizable negative ‘externality’ effect on the level of productivity” (de la Fuente, 1997). Italian economists Tabellini and Daveri (1997) argued that “the increase in European unemployment and the slowdown in economic growth are related because they stem from a common cause: an excessively high cost of labor. In Europe labor costs have gone up for many reasons, but one is particularly easy to identify: higher taxes on labor.” Using a complex general equilibrium model, German economist Bernhard Heitger (1993) concluded that for “the most important OECD countries, taxation turns out to be growth-retarding.” Roubini, Milesi and Gian (1998) concluded that “In general, the taxation of factor incomes...is growth-reducing.”

In an interesting recent study (Gittel, Kaufman and Karson 2000), the authors explore regional and state patterns in American economic change, concluding that the role of geography itself is modest in explaining differentials, but that other factors, including

state personal income taxes, play a more important role. Work on Canada similarly shows adverse effects of taxes on growth, both impacting on supply and demand (Fougere 1998). Looking more broadly at OECD nations, Boyle and McCarthy (1996) criticize studies showing a modest role for taxes in explaining inter-country growth rates, showing how labor taxation very strongly negatively impacts on the full utilization of resources. In a study of New Zealand somewhat similar to that done by this author and Gwartney, Lawson and Holcombe discussed above, Gerald Scully (1996) concludes that New Zealand would have to cut its taxes roughly in half to maximize the rate of economic growth, and that "the marginal cost of taxation...is \$2.64 for each extra dollar of taxes collected", showing even greater "deadweight losses" and inefficiencies than Feldstein observed for the U.S.

In a study in the highly regarded *Journal of Monetary Economics*, economists from the Federal Reserve and the University of Florida examined changing marginal income tax rates in the U.S. over time, concluding that "lowering taxes significantly raises economic growth and that changing the tax rate schedule also has significant effects on economic growth" (Hakkio, Rush, and Schmidt, 1996). This last conclusion reflects the view that not only do high taxes lower income generation, but that the *type* of tax can make a difference.

### **Taxes Impact The Location Of Businesses And Residences**

The discussion to this point has examined research on the negative impact of taxes on economic growth, citing around 40 studies. Yet there are a large number of studies looking at related issues, such as the impact of taxes on business location. As early as 1977, Grieson, Hamovitch and Morgenstern used econometric techniques to argue that high taxes discouraged business entrepreneurs from locating in a given area. Bernard Weinstein, alone (1977) and with Robert Firestine (1978), noted that high taxes forced up labor costs, as employers had to compensate employees for the burden of high taxes, a conclusion verified empirically in a later NBER study (Gyourko and Tracy 1986). The followup studies in the 1980s, using ever more sophisticated models, confirmed the earlier conclusion that high taxes deter businesses from investing capital (Carlton 1983; Papke and Papke, 1986; Papke 1986; Bartik 1989). Research in the 1990s agreed that taxes matter in business location, albeit with some qualifications, such as Fox and Murray's (1990) conclusion that the sensitivity to taxes varies considerably with industry and firm size (see also Friedman, Gerlowski and Silberman, 1992). The aforementioned Hines study showing foreign investors are deterred by high taxes actually confirmed what an earlier study had shown as well (Couglin, Terza, and Aromdee, 1990). One of the more interesting studies used a distinctly low tech approach (questionnaires to business leaders), concluding that high tech firms were swayed considerably by tax considerations in making location decisions (Premus 1983).

Other research has demonstrated that high taxes reduce in-migration and spawn out-migration. Early work noting the debilitating effects of taxes on local population growth

by Cebula (1974), Browne (1979) and Ecker and Syron (1979), have been replicated by others in the past decade, including Niskanen (1992), Kotlikoff and Raffelhueschen (1991), and Cadwallader (1991). More recent research reinforces the general conclusion by providing added detail. A new study in the *National Tax Journal*, for example, suggests that the elderly are influenced by low personal income and death taxes, and prefer states that exempt food from sales taxation (Conway, Smith, and Houtenville, 2001). This is consistent with the finding of Assadian (1995) that the elderly in Florida were less likely to migrate into counties with high taxes, even more so than the general population.

Finally, there is mounting evidence that high taxes reduce job opportunities and sometimes lead to higher unemployment. Wasylenko and McGuire (1985) noted a negative correlation between taxes and metropolitan area employment growth between 1973 and 1980. Even stronger findings were observed by Plaut and Pluta (1983). Goss, Preston and Phillips (1994) think previous studies understate the adverse employment effects of taxes by failing to control for other factors fully. Lowell Gallaway and I have observed that high taxes are often positively associated with unemployment, both in the U.S. and internationally (Vedder and Gallaway, 1996 and 1999b). Other research using state and local data reach similar conclusions (Dalenberg and Partridge 1995; Mark, McGuire and Papke, 2000).

This review of the literature, although listing over 65 studies, is not comprehensive. Nor does it discuss every economic dimension of taxation. To cite one excluded example, in a well regarded study in the *National Tax Journal*, Ladd and Bradbury (1988) observed that high property taxes lower property values, causing significant loss of real wealth, a finding that Stephen Moore and I have found exists for other taxes in work as yet unpublished. To cite another economic impact of state and local taxes, interstate variations in tax rates lead to enormous amount of cross-border activity, and thereby to administrative problems arising from smuggling, etc. Early work suggesting high sensitivity of citizens to tax differentials in border areas (Mikesell 1970, 1971), has been replicated in later work (e.g., Vedder, 1993, 1996; Walsh and Jones, 1988).

### **Some Empirical Evidence for U.S. States**

To provide a little more specific detail to demonstrate the negative effect that taxes have on economic growth, I gathered together extensive tax and expenditure data on U.S. states over the long time span. Specifically, I recorded by state several dozen measures of taxes and spending in the years 1957, 1977, and 1997, drawing on three of the Census of Governments conducted every five years by the U.S. Bureau of the Census. Most of the evidence presented below is simple comparisons of average performance of high and low tax states. While economists would argue that such comparisons are simplistic, in reality they usually present very similar results as to those obtained using complicated statistical procedures that are incomprehensible to the average citizen.

For the very first comparison, I calculated the average tax burden for the 50 states for the years 1957, 1977, and 1997. The average tax burden is defined as state and local taxes as