Book Review

THE DYNAMIC STABILITY OF PROGRESSIVE TAXATION

TAXING THE RICH: A HISTORY OF FISCAL FAIRNESS IN THE UNITED STATES AND EUROPE

by KENNETH SCHEVE AND DAVID STASAVAGE

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Unlike other entries into the literature regarding whether governments should place higher taxes on the wealthy, Taxing the Rich sets aside normative questions relating to progressive taxation and investigates the circumstances under which societies have imposed highly graduated rates on the wealthy. Scheve and Stasavage conclude from the evidence they present that countries place high taxes on the rich primarily when they impose military conscription concurrently with major wars. As evidence for their proposition, the authors point to the large increases in taxes on the rich which accompanied the entrance of various countries into the two world wars of the 20th century. They further argue that, after these wars were concluded, rates of taxation on the wealthy began to experience a downward trend such that, by and large, the rates that apply to the rich today are significantly less than they were 60 to 70 years ago.

The period the authors analyze consists of roughly the years 1800 to 2010, or a little over 200 years, and the observations include the tax systems of 21 countries.1 Scheve and Stasavage argue that this renders their study the most comprehensive yet conducted on progressive taxation.

1 If a country was not independent in a given year, it was excluded from the database for that year. The subtitle of the book is slightly misleading in that Australia, Canada, Japan, New Zealand, and South Korea play an important role in their analysis. Indeed, cumulatively, observations associated with these countries play a larger role than those associated with the United States.
Scheve and Stasavage’s chief contention is that high taxes on the rich have been sustained essentially only in times of mass mobilization for war, the prime examples of which being the two world wars. Although they are careful not to assert that it is the exclusive setting in which significantly progressive taxes can be implemented and maintained, the authors argue that mass mobilization is the only factor which can be isolated as correlated with highly progressive taxation. Based on the authors’ own data, however, we conclude that there appear to be other significant factors that have determined the dynamics of progressivity, leading to a broadening of the authors’ hypothesis.

Our analysis of the book consists primarily of a discussion of the data and statistical approach utilized by the authors and how they relate to the conclusions drawn. We conclude by discussing a generalization of the authors’ hypothesis that might explain more of the data than the mass mobilization model put forth in the book. Space constraints require that we leave significant analyses in connection with this alternate hypothesis for future research.

I. STATISTICAL ANALYSIS

Scheve and Stasavage largely base their case for the importance of military conscription to progressivity on a statistical analysis of a data set of historical tax rates they created for this book. A few problems arise from analyzing data over such a long period and involving as many countries as that used in Taxing the Rich. One such problem addressed explicitly by Scheve and Stasavage is that data was not generally maintained concerning the percentage of income or wealth that the rich actually paid over in taxes during most of the relevant period.\(^2\) We simply do not have good records of effective rates of tax for anything approximating the entire period that they analyze.

To overcome this problem with the data, the authors consider statutory rates rather than effective tax rates, and provide evidence of the correlation between statutory and effective rates.\(^3\) While the authors acknowledge the existence of measurement error due to using statutory versus effective rates, this does not enter into their statistical analysis in a formal manner.

The use of statutory rates does not present a significant problem as these rates may be even more useful than the authors’ arguments suggest. While the statutory rates may not be the effective rates paid by the wealthy, at a minimum, these statutory rates express societal norms that the “rich” should pay more. Because effective rate data was not available to governments at the time these tax laws were enacted, this was the best governments could do to impose higher tax burdens on the wealthy. This is to say, since the objects of study here are those decisions by government concerning tax structure, it would be appropriate to consider only that data of which governments were aware at the time. At minimum, the data utilized by the authors would seem to be a reasonable starting point.

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\(^2\) There are deep problems such as how to deal with realization, et cetera, that are brushed aside. Even today, this is a difficult issue to address.

\(^3\) See Scheve and Stasavage, Taxing the Rich (hereinafter Scheve and Stasavage) at Figure 3.4, p. 61.
The data used in most of the authors’ analysis covers approximately 200 years and 21 countries (although not all 21 countries are included for the full time period). The assumption that the data generating process for the tax systems in the developed world has been the same over a 200-year period is at least mildly problematic (Tu & Zhou, 2004). Indeed, even for those parts of the authors’ analysis that examine shorter periods, such as from 1900–2010, there were enormous societal changes during this period. For example, the notion that shifts from agricultural to industrial societies — or more recently to service sector based economies — did not have an effect on societal relations seems implausible. If there was only one data generating process operating over the period, it is unlikely that it was a simple linear model of the form the authors employ for their statistical analysis as described in Equation 1.

Where this is particularly important is in connection with the negative results they obtain. Scheve and Stasavage conclude that certain factors — such as the expansion of the vote, rising inequality, et cetera — were not related to increases in progressivity. Including too much data in the analysis may have resulted in these negative findings. Combining the observations from many countries over such a long period in the analysis might obscure important idiosyncratic features for each country. If the United States and the United Kingdom tended to raise taxes for different reasons, for example, combining them into one data set might obscure what was actually going on in each country, if different forces were at work in different countries. The conclusions the authors reach concerning particular factors not being important to higher rates of taxation across societies does not mean that those factors did not in fact operate in particular cases.

One striking indication that the underlying processes generating the tax rate data are more heterogeneous than the analysis considered in the book is that a number of countries exhibit tax rates which “swim against the tide” of the authors’ hypothesis. The Scandinavian countries had high and rising rates of taxation after the end of WWII, a period during which, under the authors’ hypothesis, their tax rates should have been decreasing, or at least not increasing (Figure 1). The time series for Denmark suggests, for example, that some other factor was operating to increase rates through the early to mid-20th century. While military conscription may have played a role, it is clear that, at least for these countries, other factors were more important.

In addition, the time series for the United States and United Kingdom data (Figure 2) also appear to be influenced by factors other than the entry into large scale wars. While it is true that, for both countries, the largest single increase in taxes on the rich

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4 While much of statistical analysis in the book covers the period 1800–2010, other parts of the data are associated with the period from 1816–2010, or roughly the period following the Napoleonic wars until today. For some parts of the argument, the authors focus on shorter time periods, such as the years around changes in voting rules or around WWI. In the Online Appendix, they give results of running their main analysis also over the periods 1871–2010 and 1900–2010.

5 In Equation 1, the authors perform what is essentially a fixed effects analysis, utilizing an equation of the following form $T_{it} = \alpha + \beta_1 D_{it} + \beta_2 W_{it} + \gamma X_{it} + \eta_i + \theta_t + \epsilon_{it}$.

6 Of course, if you have multiple data generating processes operating at once, you can embed each individual data generating process into a more general process that changes between individual sub-processes (Pötscher and Prucha, 1997).
Figure 1
Time Series of Scandinavian Income Tax Rates

Note: From Figure 1 we can see that, while the advent of WWII appears to have been associated with higher progressivity, progressivity was increasing well before the war, and the highest levels of progressivity were adopted well after the war.
Source: Authors’ calculations.
occurred during WWI, the second largest increase in tax rates on the rich occurred during the Great Depression. Most of the years with high levels of tax on the rich occurred, moreover, when there was no mass military mobilization for war.

Turning to the United States in particular, while it is true that the largest single-year increase in tax rates in U.S. history was upon its entrance into WWI in 1917, the second largest increase, and of similar magnitude, occurred in 1933. In fact, the marginal rate increase to 69 percent in 1933 was almost as high as the 71 percent which occurred during WWI. An interesting question therefore is why do we observe tax rate increases of approximately the same magnitude as we observe in connection with WWI, when no war was on the horizon? The authors briefly address this question, stating that similar “equality of sacrifice” rhetoric as was used in time of war was employed in 1933. However, as the authors mention in other parts of the book, proponents of high taxes on the rich frequently use such equality of sacrifice rhetoric. Why then was such rhetoric successful in the absence of military conscription? The higher taxes imposed during the Great Depression, for example, do not support the authors’ maintained hypothesis.

Indeed, examining the time series of the United States and United Kingdom we see that, during the 19th century, the United States and United Kingdom had either no
income tax or had very low rates of taxation by today’s standards. Since 1913, however, and particularly since WWI, we have observed only higher rates, even during peace time. This may also be suggestive of different data generating processes operating in different periods.

Figure 1.1 in the book — showing the time series of the average maximum rate for the countries included in the analysis — is clearly offered by the authors to support the basic intuition behind their central hypothesis. The chart suggests that we do not observe reasonably progressive tax rates until WWI and then, some decades after WWII, we begin to see a bit of a decline. This graph also shows a lengthy period (essentially the entire 19th century) when there was no large scale military conscription as well as low or no income tax. Interestingly, a long period during which income taxes were non-existent (or at very low rates) in the complete absence of military conscription might be understood to undermine the conclusion of the author’s statistical analysis, if it occurred for reasons that do not apply to the entire data set. That is, this period may artificially increasing the correlation between conscription and progressive taxation.

The authors indirectly concede that different data generating processes may have been operating in different periods. In the first chapter, for example, the authors acknowledge that neither the income tax nor mass mobilization were realistically possible until the end of the 19th century. Moreover, while income taxes may have been possible earlier, it might be that highly progressive taxes may not have been technically feasible until the middle period of the 20th century. Another way to view at Figure 1.1 (which would be consistent with some of the argument employed by the authors to support their hypothesis) is that the technology had not yet developed for either mass conscription or effectively taxing income until approximately the mid-20th century. As a result, the correlation between military conscription and progressivity over that initial period may be less informative than might initially appear to be the case.

The effect of the information in chart in Figure 1.1 on the authors’ statistical analysis may be considered by examining their use of a time period control variable ($q_t$) in their regressions. The time period variable essentially keeps track of average tax rates for the relevant countries in a given period. By including the time period control $q_t$ as an explanatory variable, the authors effectively remove the information illustrated by Figure 1.1 from their analysis. That is, this information is used as an input rather than as an output from their model. Perhaps it is the dynamic nature of this variable to which we should direct our focus, rather than military conscription itself. In summary, rather than using the time period control as an explanatory variable, we would posit that one should think of this as the variable whose behavior we are trying to understand.

In a similar vein it is interesting to note, that in some of the specifications in the Online Appendix, the authors include country trends as an explanatory variable. This means

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7 Because the first income tax occurred in the United Kingdom in 1799, we know that income taxes were possible throughout the period. The higher the tax, of course, the greater the likelihood of avoidance behavior (Goolsbee, 2000; Gruber and Saez, 2002). If rates are high and individual taxpayers can easily hide income, the tax will raise little revenue and will be regarded as exceedingly unfair. It may not have been possible, therefore, to impose a highly progressive income tax until the mid-20th century, when accounting standards and other technology had developed to make it more difficult to hide income.
that information in graphs such as those in our Figures 1 and 2 are used to explain tax rates rather than being explained. Rather than being treated as explanatory variables, perhaps it might be interesting to treat country trends as dependent variables, as each is an interesting object of study itself.

There were a number of additional choices regarding control variables made by the authors which, while perhaps reasonable, impact the analysis in a manner not discussed either in the book or in the Online Appendix. Firstly, the authors chose to examine mass mobilization for “interstate wars.” The key effect of this is that the American Civil War is not treated as a mass mobilization, which serves to increase the statistical significance of the authors’ conclusions. Another choice is to treat universal male sufferage as a binary variable, rather using alternate measures of the voting population such as percentage of the population eligible to vote as a control variable. Finally, it is not clear why the authors use a fixed effects specification as opposed to a first differences specification that more naturally accords with their hypothesis.

Chapter 8 of the book, which undertakes to explain the decreases in taxes that appear towards the end of the final period in the data, is perhaps the least persuasive part of the book. The authors argue that the high tax rates on the rich for decades after WWII were attributable to the memory of war. This is somewhat less than intuitive. Individuals with high incomes from the 1950s through the 1970s were not necessarily the same individuals who were wealthy during WWII. It would be difficult to argue persuasively that those earning large incomes in 1958 were doing so because of advantages accorded them by the government during WWII, or why rates dropped so much faster following WWI as compared to the period following WWII. It would seem more plausible that a newer generation may well have had different norms, having not experienced the Great Depression et cetera, or at least not having experienced that period as adults.

As we have discussed, it appears that factors other than military conscription operate upon the dynamics of progressivity. While it does appear that military conscription is an explanatory factor, other factors appear to be as, or even more, important. We would like to consider a possible generalization of the author’s hypothesis that may address additional situations such as those explored earlier.

The most important question concerning the dynamics of progressivity is the cause of the inverted U-shaped pattern in progressivity during the 20th century. While the two world wars likely played an important role, increases in progressivity during the Great Depression and in Scandinavia after WWII, as well as the retention of progressive rates well after the end of military mobilization in other countries, all suggest that other factors may have been more important than military conscription. We might consider that along the three dimensions areas discussed earlier (large wars, economic depression, and homogeneous demographics) the societies exhibited greater feelings of cohesiveness than other societies at other times. That is, during wartime there is often a pervasive feeling that the country should act as a unified nation. This heightened level of social cohesion might also have been characteristic of the Great Depression, as well as of Scandinavian countries which had until recently fairly homogenous populations. If a society can plausibly argue that all members of society have something at stake, then taxing the rich at a higher rate during times of heightened social cohesion might then have more purchase than at other times. This might also explain the more recent
decrease in progressivity as societies become more heterogeneous. This hypothesis is, in reality, merely a generalization of the authors’ hypothesis.

Developing such a generalization of the authors’ hypothesis would be a significant undertaking. For example, a key issue with analyzing and testing this social cohesion hypothesis would be to derive a workable definition of social cohesion. That is, one would have to come up with a way of measuring social cohesion, as well as statistically relating it to progressive taxation.

II. CONCLUSION

Of course the problem with attempting to explain history is that, with apologies to George Santayana, we cannot repeat it. That is, we are essentially considering the counterfactual of what would have happened had the world wars of the 20th century not occurred. Given the increase in taxes during the Great Depression, the continuance of them well after the war, and the increase in taxes in non-combatants in Scandinavia after the war, it is very possible that, even without the world wars, we might have observed something like the inverted U-shaped pattern in progressivity. If this is true, factors other than mass mobilization for war were driving progressivity. Of course, there is no way to know.

While Scheve and Stasavage conclude that large scale military conscription is the only identifiable factor contributing to progressive taxation, their data reveal that other contributive factors must exist. The authors’ persuasively argue that that war mobilization is one such factor, but we believe other factors, that for lack of a better term one can denominate as social cohesion, operate more generally.

Scheve and Stasavage’s *Taxing the Rich* is an important book that presents evidence and analysis that anyone interested in the debate about progressivity must consider. The main hypothesis that large scale military conscription is associated with greater progressivity seems convincing, but the authors’ own data suggest that a much richer story embedded in the data awaits further exploration.

REFERENCES


