Government Transfers to Individuals and the Power of Upper Income Groups

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Abstract

This paper uses time series regression analysis on annual time series data for the U.S. from 1960 to 2002 to investigate whether there may or may not be a relationship between government transfers, the share of income going to the highest income group, and the extent of defense spending. The results of the paper suggest that either increases in defense spending relative to GDP, or increases in income concentration of the highest income groups, lead to reduced government transfers to individuals relative to GDP.

One of the major components of government spending is government transfers to individuals. Transfers are critical for addressing poverty and equity issues, and for establishing and maintaining a social safety network within society. They are used to provide social security for the elderly and disabled, for unemployment insurance, and to provide welfare to the poor and help for veterans. While there has been a lot of work both theoretically and empirically looking at both demand and supply factors as causes of overall government size and as underlying sources to explain government growth, less has been done on the potential effect of the exercise of power by the top income class on the composition and size of the government, or on the determinants of the major components of government spending, or on the potential relationships that may exist among these components. The purpose of this paper is to look at data for the U.S. to test two hypotheses. The first hypothesis is that transfers to individuals relative to the economy are negatively related to income concentration in the upper tail of the income distribution. The second is that transfers to individuals relative to the size of the economy are negatively related to the magnitude of defense spending relative to the economy.

If transfers to individuals are negatively related to income concentration in the top income classes, and, assuming realistically that political influence moves with income, then, if one is concerned with social welfare in society, there appears to be real cause for concern. The gap between the upper income classes and the rest of society is widening. CEO pay keeps going up relative to the pay of average workers. Power is becoming increasingly vested in huge international corporations, with massive advertising to manipulate tastes, extensive lobbying to influence the political process, armies of lawyers to use in judicial proceedings, and the ability to control massive amounts of information. If defense spending is negatively related to transfer payments, then advocating increased defense spending is not neutral but inherently adverse in terms of consequences for social welfare programs. Under these circumstances, it becomes feasible for the wealthy to use increases in defenses spending as a convenient smoke screen for redirecting spending away from domestic social spending. Any opposition to this form of redistribution can be squelched simply by labeling discounted parties as unpatriotic. The article is broken down into four sections. The first section, in order to provide context, highlights a few selected articles in the literature. The second section discusses a simple theoretical model. The third section identifies the variables and their sources. The fourth section shows the results of the time series regressions. The fifth section concludes.

I. Some Backround Literature

Tridimas and Winer develop a theoretical model of government size that integrates demand, supply, *and* political influence (Tridimas and Winer 2005). In their literature review, they note the absence, except for a few authors, of empirical work on the effect of the distribution of political influence on government size, and, in their concluding section, advocate more empirical work on the effect of political influence on government size especially under the assumption that political influence moves with income.

Although the standard voting model, the Romer-Roberts-Meltzer-Richard model, predicts that redistribution from rich to poor increases with greater income inequality, Borck shows, theoretically, that, even within the context of the standard voting model, redistribution may actually go from the poor to the rich with increased inequality if political power increases with income, or, if the rich gain more from increased government goods than the poor (Borck 2007). In their cross country regressions, Mueller and Stratmannn, find support for the class bias hypothesis, and also find some support for the government capture theory (Mueller and Stratmann 2003). The class bias hypothesis maintains that the lower voter participation rate of the poor leads to increased income inequality and less favorable public policy outcomes for the poor, while the capture theory suggests that the elites in non-democratic countries are able to take over the government to serve their own ends.

Holcombe reviews the various theories on the size and growth of government (Holcombe 2005). These include rational choice models, in which the size of government is determined by median voter preferences, budget-maximization models in which the government maximizes revenues so that government size tends to track the government's ability to obtain revenues, and path dependent models, in which the size of the government shifts permanently upward in response to various crisis because people become acclimated to higher levels of government spending during crisis periods. He suggests the rough overall movements in government size around the world over the past two centuries can essentially be explained by the availability of funds in a budget maximizing model that is constrained by collective choice. He also feels, especially given the foundation of government is its power to force its will on others, that rationale choice theorists need to become more cognizant of the coercive power of the government, a power which can readily limit the electorate's ability to influence government size.

Kau and Rubin employ two stage least squares on annual U.S. data from 1930 to 1993 to consider both supply factors, the ability of the government to collect revenues, and demand factors, the desire of citizens for government goods, as potential determinants of government size (Kau and Rubin 2002). On the supply side, their results indicate that taxes generated from increased labor force participation of women are a major factor behind government growth. On the demand side, they find that the ideology of the house and the senate to be statistically relevant, with a more liberal orientated congress associated with greater government size.

Berry and Lowery maintain that to really understand the drivers of government size it is necessary to breakdown government spending into its major components and to explain each component separately (Berry and Lowery 1987). In their time series regression analysis, they use annual data for the U.S. from 1948 to 1982, and find evidence that government transfers depend on income, the stage of the business cycle, the degree of liberal governance, fiscal illusion, and extent of decentralized government. They urge future research be undertaken to see whether there is a relationship between the major parts of government spending ; namely, government spending on domestic purchases, government spending on transfers, and government spending on defense.

II. The Model

The model consists of a single equation with three potential arguments. The equation, in conjunction with partial derivatives for the right hand side variables that show their theoretically predicted signs, is, as follows.

$$T = f(Y, M, U) \quad \delta T/\delta Y > 0, \; \delta T/\delta M < 0, \; \delta T/\delta U < 0$$

In the equation, T stands for government transfers to individuals relative to the economy, Y for real per capita income, M for military size relative to the economy, and U for the share of income going to a highest income group. In concert with Wagner's law with regard to income and the size of government as a whole, the relationship between social welfare transfers relative to the economy and real per capita income is expected to be positive. The demand for public goods typically rises with increases in national wealth.

Given the fact that transfers are the major government instrument for increasing income equality, and assuming greater equality is a public good, this means that transfers are likely to grow with increased national wealth. The relationship between government transfers to individuals relative to the economy and defense spending relative to the economy is expected to be negative. That is to say, higher levels of defense spending as a share of the economy are predicted to lead to lower levels of social expenditures relative to the economy in the form of transfers from government to individuals. The rationale is that war, the threat of war, or the perceived need for greater security, changes the relative values and priorities of society, or at least for those in power, toward external needs at the expense of domestic needs.

The relationship between social welfare transfers and the share of total income going to the highest income class is also hypothesized to be negative. Their relative income status falls when the share of the classes beneath them rises, or when upper class shares fall due to transfer operations. In addition, the interest of the upper class is for the classes beneath them to be docile, non-aggressive, easy to handle, and well-disciplined. The upper class generally own the factors of productions such as land and capital that are necessary for employment of labor, and the returns to these factors is negatively related to wages and to reduced worker discipline. Greater transfers dampen wages and work force discipline by making the non-work option for workers more viable and palatable.

III. *Data Sources*

The annual data from 1960 to 2002 for the U.S. on transfers to individuals, real GDP per capita in chained 1995 dollars, defense spending, and the percentage of total income going to the top five percent income earners comes from the Statistical Abstract of the U.S. (Statistical Abstract of U.S. 2012). Real transfers to individuals includes retirement & disability insurance benefits, medical payments, income maintenance benefits, unemployment insurance benefits, veterans benefits, and federal education & training assistance payments. The percentage transfers to GDP are calculated by dividing real transfers by real GDP and multiplying by a hundred. Similarly, the percentage of defense spending to GDP is obtained by dividing real defense spending by real GDP and multiplying by a hundred. The variables, real GDP per capita in chained 1995 dollars, real defense spending as a percentage of GDP, and the percent of income going to the top five percent of income earners are given respectively the variable names REALPCGDP, %DEFENSETOGDP, TOP5%INCOME.

IV. *The Annual Time Series Regressions for the U.S*.

Table I shows the regressions on annual data for the forty-two year period from 1960 to 2001 for the U.S. of total government transfers to individuals as a percentage of GDP on real GDP per capita in chained 1996 dollars (REALPCGDP), the percentage of defense expenditures to GDP (%DEFENSETO GDP), and the percentage of total income of the top five percent income earners (TOP5%INCOME).

Table I: Annual Regressions from 1960 to 2001 of the Percentage of Total Government Transfers to GDP on Real Gdp Per Capita, the Percentage Of Defense Spending to GDP, and on the Percentage Income Share of the Top Five Percent of Income Earners

		CONSTANT	REALPCGDP	%DEFENSETOGDP	TOP5%INCOME	RSQ	N
(1.1)	TOTAL GOVERNMENT TRANSFERS TO INDIVIDUALS	9.539 (4.42) *	.00014 (2.50) **	-.7007 (-4.35) *		.847	42
(1.2)	TOTAL GOVERNMENT TRANSFERS TO INDIVIDUALS	5.144 (3.80) *	.000450 (11.25) *		-.4528 (-3.84) *	.835	42
(1.3)	TOTAL	10.609 (5.32) *	.00029 (3.86) *	-.5360 (-3.34) *	-.3123 (-2.76) *	.873	42

The table is set up with the first row identifying the potential independent variables in the regression equations. Each of the three subsequent rows contains the results of an individual regression. A blank cell in a column underneath an independent variable for any given row indicates that the variable does not enter the equation in that row. If and when a variable enters an equation, the top value is the estimated coefficient for the variable, and the number in parenthesis under the top value is the estimated coefficient's individual t-statistic. A variable that is significant at the ten percent level of significance or better is marked, under the individual t-statistic, with three asterisks. Two asterisks appear if a variable is significant at the five percent level or better, and a single asterisk appears when a variable is significant at the one percent level of significance or better. The last two columns of the table show the r-squared value (RSQ) and the number of observations (N).

Table I contains three equations. The first equation (equation 1.1) looks at defense spending alone as the sole additional explanatory variable after adjusting for real per capita GDP. Similarly, the second equation (equation 1.2) instead of defense spending uses the top five percent's income share when coupled with real GDP per capita.

Finally, the third equation (equation 1.3), in addition to real GDP per capita, considers *both* defense spending and the top five percent 's income share in trying to explain government transfers as a percentage of GDP.

The results lend support to the hypothesis that greater defense spending lessens governmental social assistance in the form of transfer payments, and to the hypothesis that skewing the income distribution in favor of the highest income group is detrimental to governmental aid to individuals through transfer payments. The sign of both the percent of defense spending to GDP (%DEFENSETOGDP) and the top five percent's income share (TOP5%INCOME)is negative when the variables enter separately in combination with real GDP per capita as explanatory variables (equations 1.1 and 1.2 respectively), and when they are used jointly in combination with real GDP per capita (equation 1.3). Both variables are significant at the one percent level of significance or better in all of the equations in which they appear. When combined with real GDP per capita (equation 3.1), the variables explain over eighty-seven percent of the variation in the percentage of GDP of total government transfers to individuals over the forty-two year period in the U.S. from 1960 to 2001.

V. Conclusion

If one is concerned with social programs, and with compassion toward the poor, then one must be sure to take into account both the size of defense establishment and the degree of income concentration. The study shows that when defense spending increases relative to GDP, or when income becomes more concentrated at the top of the income distribution, government transfers to individuals fall relative to GDP. Thus, it appears, at least within the cultural and institutional context for the years investigated for the U.S., that defense spending is competitive with social improvement agendas. In addition, it also looks as though income concentration tends to sway public values toward the values of the more affluent, which are not values that favor government help for the less affluent.

Given this knowledge, if and when society permits increases in defense spending as a share of the economy or allows increases in income concentration, then it must find conscious ways to counteract their negative effect on social programs. One possible way might be to tie increases in income concentration and defense spending to increases in transfers and expenditures on social programs. In this case, defense spending and income concentration would only be allowed to increase under the condition, and only under the condition, that there is a simultaneous rise in the in the share of social spending and transfers relative to GDP by some pre-specified amount. If income concentration is allowed to rise, there should also be programs designed to inculcate in the rich a greater sense of responsibility toward other members of society. Social concern must become a much greater part of the socialization process, the family rearing, and the institutions that are used to educate the youth of wealthy members of society. Just as there are problems associated with the poor for society, which are widely researched and investigated and constantly brought to the public's attention, there are also problems with the rich in society for society, but these are rarely recognized, investigated, or brought before the public eye. Rather, instead, conspicuous consumption of the rich is generally glamorized. Conspicuous rich consumers are made into celebrities, brought onto talk shows, and put forth as models to be emulated by the rest of society.

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