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Income inequality, voting over the size of public consumption, and growth

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Abstract

According to a standard argument, higher income inequality fosters redistributive activities of the government in favor of the median income earner. This paper shows that if redistribution is achieved by public provision of goods and services rather than by transfers, higher income inequality may imply a smaller size of the government in majority voting equilibrium. In addition to a static voting model, an endogenous growth model is analyzed to examine how saving decisions of heterogeneous individuals affect both the distributional incidence of proportional factor income taxes and the voting outcome.

JEL classification: D33; H40; O41
Keywords: Income distribution; Public consumption; Majority voting; Investment-driven growth; Tax incidence

1. Introduction

Standard models linking income distribution and the size of the government are based on majority voting. The median voter is, by hypothesis, the individual with the median income. Moreover, the income distribution is viewed as more unequal, the lower the median income is relative to the mean income. In these models, the more unequal income is distributed, the higher is the demand of the median voter for redistributive activities of

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the government (e.g., Meltzer and Richard, 1981).[1] This argument has also been applied to explain the often observed negative relationship between income inequality and economic growth.[2] Since redistribution is financed by taxes that distort saving decisions, higher inequality slows down investment-driven growth through the politico-economic channel (e.g., Bertola, 1993; Persson and Tabellini, 1994; Alesina and Rodrik, 1994). The empirical evidence for these suggestions is, however, at best, mixed.[3]

This paper examines the link between income inequality and the size of government in a majority voting equilibrium by considering tax-financed redistribution through publicly provided goods and services rather than transfer policies.[4] Examples include recreational facilities, parks, roads, health, and cultural services. It should be noted that like tax transfer schemes, this kind of public expenditure usually has a redistributive impact on the median income earner. This is because tax payments (which are used to finance publicly provided goods) rise with income, but the median income earner does not necessarily consume less of publicly provided goods and services than richer individuals.[5]

More specifically, I investigate whether public consumption spending as share of national income rises or falls with income inequality. This is done in both a simple static model and also in a dynamic general equilibrium model with investment-driven growth. The intertemporal model allows an analysis of how taxation affects the voting outcome through savings, when individuals differ in capital endowments. This is the main focus of this paper.

As it turns out, one cannot generally expect a positive relationship between income inequality and the public consumption share in a majority voting equilibrium. For instance, assuming exogenous labor supply and specifying the tax scheme as synthetic income tax (various tax schemes are considered), higher inequality of capital endowments unambiguously leads to lower taxation and public expenditure, respectively. The reason for this is

[1] Meltzer and Richard (1981) derive this result in a static majority voting model with a (distortive) linear tax-transfer scheme. That is, the poorer the median income earner (i.e., the median voter) is relative to the mean income earner, the higher is his/her net transfer. However, Roemer (1998) has shown that when voting problems are multidimensional, i.e., there is voting not only over redistribution but also over a noneconomic issue (like religion), it may well be that poor individuals vote for conservative tax policies.

[2] Using a new data set about inequality measures, Deininger and Squire (1996) cast doubt on the existence of such a relationship. See Grossmann (2001) for a review of the theoretical and empirical literature on the relationship between inequality and growth.

[3] Whereas Meltzer and Richard (1983) provide some time-series evidence for the U.S. in favor of their theory, Lybeck (1986) rejects the hypothesis for Sweden. In cross-country studies, Mueller and Murrell (1986) find some weak support, but Kristov et al. (1992) even find that a lower median-to-mean income ratio decreases redistribution. According to Rodriguez (1998), not a single redistribution measure is positively affected by inequality of gross income. In addition, Perotti (1996) does not find any link between inequality and tax rates or transfers, respectively. Moreover, his estimates suggest that redistributive measures positively affect growth (see also Basett et al., 1999). However, in a recent cross-country study of 24 democracies, Milanovic (2000) finds evidence for the hypothesis that higher income inequality leads to more redistribution. Milanovic is critical of previous studies for not having used the appropriate data.

[4] Opposed to the long debate about whether or not higher per capita income yields a larger public consumption share, a hypothesis known as Wagner's law, here it is considered how the income dispersion affects the size of the public sector.

[5] As Boadway and Wildasin (1984, p. 506) state: "Almost any taxing or expenditure decision of local governments will have distributive implications; it cannot be avoided."