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# Income distribution, borrowing constraints and redistributive policies

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**Abstract**

This paper sheds light on the relationship between income inequality and redistributive policies and provides possible guidance in the specification of empirical tests of such a relationship. We model a two-period economy where capital markets are imperfect and agents vote over the level of taxation to finance redistributive policies that enhance future productivity. In this context, we show that the pivotal voter is not necessarily the agent (class) with median income. In particular, the poor, who are more likely to be liquidity constrained, may form a coalition with the rich and vote for low redistribution. The effects of an increase in income inequality on the level of redistribution turn out to depend on whether the increase in inequality is concentrated among the poor or the middle class. Empirical results from a panel of 22 OECD countries provide preliminary evidence consistent with our main theoretical implications.


*JEL classification:* E62; H31

*Keywords:* Inequality; Borrowing constraints; Redistribution

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## 1. Introduction

Given existing inequality in income and wealth distribution, economists have long since emphasized the risk that the political process in democratic systems might lead to high taxation of capital and reduced growth. In a typical political economy framework where all citizens have the right to vote, the lower is median wealth (income) relative to the mean, that is, the more unequal is the distribution of income, the higher will be the level of redistribution. Therefore, if redistribution depresses the incentives to invest, income inequality has a negative effect on growth. These causal links have been incorporated in models of political economy and growth by authors such as Alesina and Rodrik (1994) and Persson and Tabellini (1994) who have also provided some empirical evidence of a negative association between income inequality and growth.[1]

However, several empirical studies have shed doubts on the capacity of the political economy channel to explain the relationship between inequality and growth. Perotti (1996) was the first one to perform econometric tests on the various channels through which inequality can affect growth and concluded that the political economy channel is not supported by data. Benabou's (1996) survey on inequality and growth summarizes recent empirical work in this area and concludes that inequality is not robustly associated with redistribution in cross-country data. In fact, the statistical association between inequality and various measures of redistribution is rarely significant and its sign, which is sometimes negative, heavily depends on the chosen specification. Rodriguez (2004) obtains evidence of a negative association between inequality and redistribution by examining a panel of OECD countries in the period 1960–1990 and provides a theoretical model which is consistent with it, based on the unequal political power of the rich and the poor.

In this paper, we propose a theoretical model which may provide useful insights on the relationship between inequality and redistribution and possible guidance in the specification of empirical tests of such relationship. The central idea of our work is quite simple.

Assume that, in a world with credit market imperfections, the government runs a public program where (1) a public good or service is provided and accessible in equal amounts to all agents; (2) the program is financed through current income taxation and affects productivity and/or income *not only in the current period but also in the future*. Examples of such programs are publicly financed schools (as, for instance, primary and secondary education in most OECD countries) and public investment in infrastructure capital (e.g. roads, bridges, airports, etc...).[2]

In this case, if taxation is progressive (or proportional), public expenditure would have a redistributive effect since poor agents contribute relatively less to the equally beneficial program.[3]

[1]In a recent empirical contribution, Forbes (2000) challenges this view and provides evidence that an increase in income inequality has a significant positive relationship with subsequent economic growth.

[2]In a dynamic framework, a pay-as-you-go social security system may be consistent with our mechanism. If workers are willing to finance current pension benefits paid to the old through contributory taxes expecting that they will receive benefits in the future, our argument will apply provided that pensions are at least partially linked to the current level of wages (see Bellettini and Berti Ceroni, 1999).

[3]Examples of models where redistribution takes the form of public education which augments future income can be found, among others, in Glomm and Kaganovich (2003), Lee and Roemer (1998), and Saint-Paul and