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Political economy of income distribution dynamics

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Abstract

Income distribution varies considerably across countries; it tends to become more equal with development in some countries, but just the opposite occurs in other countries. This paper provides a theoretical investigation of the persistent differences in income distribution across countries over time. Motivated by the relationship between income distribution and public spending at different school levels for a broad range of countries over the past 30 years, the analysis centers on the role of public education where specific investments interact with political involvement by different socio-economic groups. Socio-economic groups may form lobbies to influence education policy making. The formation of lobbies is endogenous. Persistent inequality is caused by persistent lobbying efforts of the wealthy that lead to an allocation of public education spending more biased toward them.

JEL classification: D7; H4; I2; O1
Keywords: Income distribution; Allocation of public education spending; Political economy; Endogenous formation of lobby

1. Introduction

Persistent differences in income distribution across countries are a well recognized phenomenon. An existing strand of research focuses on the role of redistributive policies, in particular, public education policy. Theoretical analysis of the relationship between income distribution and total public education spending, however, is in general not consistent with empirical findings. This paper seeks to develop a theory of income distribution dynamics through the mechanism of public education policy that is consistent with empirical observations. Its point of departure is a more realistic view of public education: public education is not a single public good; on the contrary, different school levels appear to be different public goods. Public spending at different school levels exhibits distinct relationships with income distribution, and they tend to benefit different socio-economic groups. As a result, socio-economic groups have an incentive to influence the allocation of public education spending in their favor, and the resulting policies tend to preserve initial income distributions.

I formalize these ideas in a simple general equilibrium political economy model with overlapping generations, where an incumbent government determines public education spending on different socio-economic groups, and current education determines future income. The government might however be influenced by socio-economic groups. I model this political influence as lobbying by socio-economic groups in a common agency framework à la Bernheim and Whinston (1986). The uniqueness of the present model is that socio-economic groups' political influence is not assumed; rather,

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whether a socio-economic group will engage in lobbying is endogenously determined by its own utility maximization calculation, and is crucially dependent on current income distribution, the government's valuation of social welfare relative to political contribution, and the cost of entering the political competition. In equilibrium, different sets of lobbies may form, but the rich are invariably more likely to lobby. When different lobbies form, public education policies will be different, and over time, income distributions will evolve on different paths. In the long run, all economies may reach one unique steady state income distribution regardless of the initial distributions, or economies with different initial income distributions may reach different steady state distributions. In the latter case, we observe persistent equality or persistent inequality in different economies.

The income distribution dynamics generated by this model are in sharp contrast to that implied by the traditional median-voter model (see, for example, Meltzer and Richard, 1981; Alesina and Rodric, 1994; Persson and Tabellini, 1994). In the median-voter model, greater inequality translates into more redistributive policies; it implies that income distribution converges to one steady state in the long run. In particular, Glomm and Ravikumar (1992) and Saint-Paul and Verdier (1993) show that more unequal economy tends to support public education, and continued support of public education lowers income inequality over time. Empirical studies such as Perotti (1996) and studies reviewed in Bénabou (1996), however, find no relationship between inequality and aggregate public education spending.[2]

The present model also establishes that political influences are endogenously determined by individuals' utility maximization decision and are influenced by the economic and political parameters. Bénabou (2000) and Ferreira (2001) generate persistent inequality through less redistributive policies, but they *assume* that wealthier individuals have more political influence and that the decisive voter is richer than the median-income voter. Rodriguez (1998) shows in a lobbying model that greater inequality can lower the effective redistributive tax rates. However, he restricts the potential lobby set to the wealthier individuals, and his model is static and not suitable for studying policy and income distribution dynamics. Therefore, the present model provides a more suitable framework to analyze how changes in socio-economic environment may lead to permanent changes in income distribution dynamics.

The lobbying model in this paper serves as an instrument to formally represent various ways socio-economic groups influence policy making, in both democratic and non-democratic countries. There is anecdotal evidence that socio-economic groups lobby for favorable education policies. In the United States, the Association of Community Organization for Reform Now (ACORN), a grass-roots organization of low- and moderate-income families, lobbies persistently for better public schools in their neighborhoods; lobbying by higher education institutions is also extensive, and these lobbies tend to articulate the demands of their clients, i.e., the parents from upper socio-economic groups, and to be financed by them, for example, through alumni giving (Cook, 1998). Socio-economic groups can also influence policies by electing the "right" person or party into the office. In the US, pressures from the middle- and upper-class families have possibly been the driving force for the change in the federal college student aid programs during the 1980s and 1990s (Spencer, 1999); in Britain, middle-class influences may have helped shape the recent education policy under New Labour Party (Kerckhof et al., 1997; Thrupp, 2001). Moreover, the lack of transparency in the education budget process in many countries provides opportunities for favor-trading, affecting adversely education spending priorities and education accessibility (Hallak and Poisson, 2002). Birdsall et al. (1995) observe that "the allocation of limited fiscal resources for tertiary education, so common in Latin America, is an example of fiscal policy that reflects pressure for public spending on favored groups."

This paper is organized as follows. Section 2 provides partial correlations between income distribution and public spending at different school levels and educational attainment for a broad range of countries. These relationships motivate the theoretical analysis to follow. Section 3 sets up the political economy model and describes the equilibrium concept. Section 4 characterizes the equilibria of the stage game and discusses the income distribution dynamics. Section 5 concludes.

2. Stylized facts

This section documents three stylized facts to motivate the theoretical focus on the "composition" rather than the "level" of public education spending and on the political involvement of different socio-economic groups in the making of public education policy.

[2] Galor and Zeira (1993) in a seminal paper show that multiple steady state income distributions exist when households face liquidity constraint in their private education investment decisions. Lee and Roemer (1998) add to this model public spending on education, but the mechanism to obtain multiple equilibrium income distributions is essentially the same as Galor and Zeira.