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Journal of Development Economics
Vol. 61 (2000) 417–446

JOURNAL OF Development ECONOMICS

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Does income inequality raise aggregate saving?

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Abstract

This paper reviews analytically and empirically the links between income distribution and aggregate saving. Consumption theory brings out a number of direct channels through which income inequality can affect overall household saving — positively in most cases. However, recent political-economy theory points toward indirect, negative effects of inequality — through firm investment and public saving — on aggregate saving. On theoretical grounds, the sign of the saving–inequality link is therefore ambiguous. This paper presents new empirical evidence on the relationship between income distribution and aggregate saving based on a new and improved income distribution database for both industrial and developing countries. The empirical results, using alternative inequality and saving measures and various econometric specifications on both cross-section and panel data, provide no support for the notion that income inequality has any systematic effect on aggregate saving. These findings are consistent with the theoretical ambiguity.

PACS: E21; D31
Keywords: Saving; Inequality; Income distribution

1. Introduction

The theoretical relation between saving and income distribution has received attention both in the historical growth literature and more recent neoclassical consumption theory. In fact, the link between the functional distribution of income

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0304-3878/00/$ - see front matter
PII: S0304-3878(00)00063-8

and saving (and growth) is at the heart of the neoclassical growth model (Solow, 1956) as well as neo-Keynesian growth models (Lewis, 1954; Kaldor, 1957; Pasinetti 1962). In more recent neoclassical consumption theory, the focus is on the links between personal distribution of income and aggregate saving as a result of consumer heterogeneity in regard to endowments or institutional constraints (see Deaton, 1992 for a discussion). Most (but not all) of the mechanisms pointed out by the above mentioned theories suggest positive direct effects of income inequality on overall personal saving. However, recent political-economy research brings out negative indirect links from inequality — through investment, growth, or public saving — to aggregate saving (e.g., Dornbusch and Edwards, 1991; Persson and Tabellini, 1994; Alesina and Perotti, 1996). Taken together, these two strands of the literature imply that the overall impact of inequality on aggregate saving is theoretically ambiguous and can only be assessed empirically.

Most of the empirical literature on the links between personal income inequality and personal saving based on cross-section micro data suggest a positive relation between them (e.g., Bunting, 1991; Dynan et al., 1996). In turn, the evidence from aggregate (typically cross-country) data is more mixed. Some studies also find positive and significant effects of personal income inequality on aggregate saving (Sahota, 1993; Cook, 1995; Hong, 1995), but other studies do not (Della Valle and Oguchi, 1976; Musgrove, 1980; Edwards, 1996). Reconciling these conflicting results is difficult because empirical studies based on macro data use different samples and specifications, different measures of saving and inequality and, in most cases, income distribution information of questionable quality.

This paper reexamines the empirical evidence from macro data on the links between the distribution of personal income and aggregate saving, controlling for relevant saving determinants. It provides an encompassing framework and a robustness check for previous empirical studies, and extends them in five dimensions: (i) testing alternative saving specifications; (ii) using alternative inequality and saving measures; (iii) making use of newer, better and larger databases; (iv) conducting estimations jointly and separately for industrialized and developing countries; and (v) applying various estimation techniques on both cross-country and panel data. On the whole, we do not find any consistent effect of income inequality on aggregate saving — a result that is consistent with the theoretical ambiguity.[2]

The paper is organized as follows. Section 2 provides a brief literature survey on the links between income distribution and saving determination. Section 3 reviews previous empirical studies of the impact of income distribution on saving.

[2] This paper thus extends significantly, along several dimensions, preliminary findings reported in Schmidt-Hebbel and Servén (1999) which also showed little effects of income distribution on saving. Such provisional conclusion is considerably strengthened in this article based on an expanded database, presenting results that exploit both the medium and long time frequencies of the data, and performing systematic robustness tests over alternative specifications and estimation techniques.