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The effect of foreign aid on income inequality: Evidence from panel cointegration

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ABSTRACT

This paper examines the long-run effect of foreign aid on income inequality for 21 recipient countries using panel cointegration techniques to control for omitted variable and endogeneity bias. We find that aid exerts an inequality increasing effect on income distribution.

1. Introduction

Taking donor strategies at face value, the urgent need for foreign aid of poor and disadvantaged people living in developing countries represents the overarching motive of official development assistance (ODA). The donor community committed itself in 2000 to achieving the Millennium Development Goals which would mainly benefit the poorest population segments and, thereby, reduce inequality in the recipient countries. Apart from halving absolute poverty by 2015, particularly relevant targets include the provision of universal primary education and universal access to reproductive health. Donors also agreed at the G8 summit in Gleneagles in 2005 that ODA has to be scaled up substantially to finance these important dimensions of pro-poor growth. According to Sachs and McArthur (2005: 347), ODA is a critical constraint to finance "what is crushingly expensive for the poorest of the poor." Increases in ODA, if properly directed, could thus improve the poverty reducing impact of a given rate of economic growth. Pro-poor growth, in turn, could enhance political stability and social cohesion which tend to be undermined by increasing inequality (OECD, 2006).[1]

It is open to debate, however, whether ODA effectively supports pro-poor growth. Recent surveys on the growth impact of aid come to sharply opposing verdicts. Doucouliagos and Paldam (2009: 433) conclude that "after 40 years of development aid, the preponderance of the evidence indicates that aid has not been effective." By contrast, McGillivray et al. (2006: 1031) summarize that more

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[1] Bourguignon et al. (2009: 9) argue that if the high level of global income inequality "were to exist within a single country, that country would probably experience substantial social strive."

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recent research "agrees with its general finding that aid works to the extent that in its absence, growth would be lower." Yet, even this positive assessment does not resolve the question of whether it is primarily the poor whose income prospects improve through ODA.[2] Anecdotal evidence rather suggests that mainly the political elite benefits from aid. It is estimated that the former president of Zaire, Mobutu Sese Seko, looted the treasury of at least $5 billion (an amount equal to the country's entire external debt at the time he was ousted in 1997). The funds allegedly embezzled by the former presidents of Indonesia and the Philippines, Mohamed Suharto and Ferdinand Marcos, are still higher (Svensson, 2005).

In contrast to the fairly large literature on growth effects, the distributional effects of ODA have received scant attention in previous empirical research. It is important to fill this gap in order to improve the allocation of aid and its effectiveness. Theoretical considerations show that aid may induce self-interested recipients to engage in rent-seeking activities aimed at appropriating resource windfalls (Svensson, 2000; Hodler, 2007; Economides et al., 2008). Moreover, donors may allocate aid in a way that deviates from the pro-poor growth rhetoric. As discussed in more detail in Section 2, several channels exist through which aid may result in more pronounced income inequality. The few existing empirical findings are mixed. Chong et al. (2009), using cross-section and system GMM panel techniques, find that aid has no robust effect on inequality. The random effects panel analysis by Bjørnskov (2010) reveals that the interaction of foreign aid and democracy in the recipient country is robustly and positively associated with income inequality. Shafiullah (2011) estimates fixed and random effects models and concludes that aid reduces income inequality.[3]

Against the backdrop of scarce and ambiguous findings, we re-assess the question of the distributional effects of foreign aid. Specifically, we contribute to the empirical literature by employing panel cointegration techniques to examine the long-run effect of aid on income inequality. Panel cointegration estimators are most appropriate in the present context. We argue in Section 3 that they are robust under cointegration to a variety of estimation problems that often plague empirical work, including omitted variables, slope heterogeneity, and endogenous regressors. To anticipate the results, we find that aid exerts an inequality increasing effect on the distribution of income.

The remainder of this paper is composed of four sections. In Section 2, we discuss the related literature. Section 3 sets out the basic empirical model and describes the empirical methodology. The data and the estimation results are presented in Section 4, and Section 5 concludes.

2. Related literature

Two critical conditions would have to be met for ODA to be effective in reducing income inequality in recipient countries.[4] Donors would have to allocate aid in line with their rhetoric on pro-poor growth, by targeting the most needy and deserving. At the same time, the authorities in the recipient countries would have to ensure that aid actually reaches the poor. The following arguments suggest that both conditions tend to be violated once it is taken into account that foreign donors are not purely altruistic and local authorities have incentives to divert aid funds for personal benefit.

From the literature on aid allocation across recipient countries it is well known that donors have both altruistic and egoistic motives (e.g., Berthélemy, 2006). Specifically, this literature reveals that ODA is partly motivated by commercial and political self-interest. According to Alesina and Dollar (2000: 33), there is "considerable evidence that the direction of foreign aid is dictated as much by political and strategic considerations, as by the economic needs and policy performance of the recipients."[5] Alesina and Weder (2002) find that ODA is distributed indiscriminately between countries with honest and corrupt governments. Admittedly, the cross-country evidence does not allow any direct inference as to the distributional effects of ODA within recipient countries. Little is known about the distribution of aid within countries, either geographically or between segments of the population. Yet selfish donor motives are likely to compromise the needs- and merit-based allocation of aid within countries, too. For example, commercial donor interests may have as a consequence that ODA, e.g., in the area of physical infrastructure, is concentrated in industrial clusters rather than remote areas where the poorest people are living. Likewise, using aid as a means to buy political support by the local elite implies that it favors the rich rather than the poor within a particular country.[6]

Even if donor countries did not use aid to foster commercial or political self-interest, the incentives of aid agencies might work against inequality reducing effects of ODA. As noted by Drazen (2007), agencies have strong incentives to continue disbursing aid independent of whether it is effective. The incentive to "push money out the door" (Drazen, 2007: 672) also implies that agencies favor large-scale operations rather than small projects reflecting indigenous creativity (Easterly, 2006), even though the latter may be better suited to reduce inequality. Information asymmetries create additional incentive problems working against inequality reducing effects of aid. On the one

[2] On the other hand, the negative verdict of Doucouliagos and Paldam (2009) does not necessarily preclude favorable effects on the distribution of income as aid may alleviate poverty without having discernible average growth effects (Arvin and Barillas, 2002; Chong et al., 2009).

[3] Bourguignon et al. (2009: 1) find that aid has a weak equality enhancing effect on the international distribution of income. But these authors abstract from "the admittedly critical element of within country inequality."

[4] For a similar line of reasoning, see Drazen (2007: 669), according to whom the ineffectiveness of aid may be "due to the actions of aid agencies (e.g., giving aid repeatedly, no matter what performance has been) and/or recipients (e.g., misuse of aid)."

[5] More recently, Fleck and Kilby (2010) find that the emphasis placed on need has weakened for core recipients of US aid during the War on Terror.

[6] In a similar vein, Shafiullah (2011: 91) argues that aid tends to strengthen the political, social and economic influence of local elites that serve the donors' political and commercial interests.