

THE IMPORTANCE OF OIL IN THE ALLOCATION OF FOREIGN AID

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Overview

Foreign aid in direction of developing countries has had, and continues to receive, a considerable amount of attention in the economics literature (see Alesina and Dollar, 2000). Recently, some observers have argued that a large portion of this foreign aid has been in direction of oil developing countries (Lee, 2012; Arezki and Banerjee, 2014). The arguments on the oil-aid relationship can be categorized into two groups; those arising from interests of the donors and those due to the structural characteristics of oil-producing developing countries. In this paper, we explicitly investigate the role of oil in the allocation of foreign aid. We first check if donor countries tend to be biased toward countries with important oil-endowment. Second, we determine whether donors use foreign aid as means to ensure their own energy security and analyze their strategic interactions with respect to market share and oil supply through the estimation of an empirical spatial lag model. Therefore, our aim here is to look specifically at both oil endowment of recipient countries and donor's considerations related to energy security, in order to provide a fairly complete picture of the importance of oil in aid allocation. The paper is organised as follows: After the introduction, in the second section we assess the importance of oil endowment in allocation of foreign aid. We examine the way in which the importance of oil in aid allocation is driven by donor's interest and by their strategic interaction in sections three and four, respectively. In the fifth section we report some robustness exercises, and the final section concludes the paper.

Methods

We extend the standard empirical literature on aid receipts by including oil reserves held by recipient countries and then by controlling donor's energy security, via the ratio of net oil imports to oil consumption and the volatility of oil price. Accordingly, aid receipts from donor i to recipient country j are explained by both recipient countries' features - including their oil endowment Oil_{jt} - and strategic links between donor and recipient countries, (Eq 1), proxies of donors' energy security ($Oil_{M_{it}}$ net Oil imports and Oil_{P_t} Oil price volatility) (Eq 2):

$$Aid_{ijt} = \alpha_{ij} + \beta Aid_{ijt-1} + \gamma Oil_{jt} + \delta X_{jt} + \zeta Trade_{ijt} + \eta_j + u_i + \lambda_t + \varepsilon_{ijt} \quad (1)$$

$$Aid_{ijt} = \alpha_{ij} + \beta Aid_{ijt-1} + \gamma Oil_{R_{jt}} + \delta X_{jt} + \zeta Trade_{ijt} + \theta Oil_{M_{it}} + \sigma Oil_{P_t} + \eta_j + u_i + \lambda_t + \varepsilon_{ijt} \quad (2)$$

We estimate these aid allocation models using two alternative estimation methods for the sake of robustness: a standard fixed effects model (FE), and Poisson pseudo-maximum likelihood estimation (PPMLE). While dealing with the donors' competition for oil, these estimation methods are employed within the framework of spatial lag models, following Plumper and Neumayer (2010):

$$A_{ijt} = \rho \sum_{k \neq i} W_{ikt} A_{kjt} + \eta_j + u_i + \lambda_t + \varepsilon_{ijt} \quad (3) \text{ (Spatial lag model)}$$

$$A_{ijt} = \rho \sum_{k \neq i} W_{ikt} A_{kjt} + \gamma Oil_{jt} + \delta X_{jt} + \zeta Trade_{ijt} + \eta_j + u_i + \lambda_t + \varepsilon_{ijt} \quad (4) \text{ (Spatial-X lag model)}$$

where

$$W_{ikt} = \frac{oil\ imports_{ijt}}{oil\ exports_{jt}} \times \frac{oil\ imports_{kjt}}{oil\ exports_{jt}} \quad (5)$$

Results

From the preliminary analysis, the results show that oil endowment impacts positively aid allocation. When we take into account the energy security issue, we include in our initial specification as a measure of donor's energy security, both the ratio of net oil imports to oil consumption and the volatility of oil price. Controlling for these two variables does not change our finding of a significant impact of oil endowment in aid allocation. Moreover, the coefficients of these two variables are found to be positive and statistically significant. Finally, when we investigate the potential competition for oil between donors, we evidence that donors account for the aid decisions of other donors with which they compete for oil supply when allocating their own aid.

To make sure that our results are robust throughout a broader range of specifications, we also conduct a variety of additional tests. Those include (i) the use of another dataset of foreign assistance, AidData, which covers more bilateral and multilateral donors and more types of aid than the CRS (Tierney et al., 2011); (ii) estimations based on 3 and 5 years averages; (iii) an analysis of the way of the importance of oil is channeled according aid's instrument. For most of the robustness tests, the results of the benchmark specification can be supported and remain consistent.

Conclusions

Oil rich countries have on average larger share in the total of aid commitments allocated by a donor country. Larger aid allocation is driven not only by oil endowment of recipient countries but also to donor's considerations related to energy security. Furthermore, donors account for the aid decisions of other donors with which they compete for market share and oil supply when allocating their own aid.

References

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