

「Does Aid Increase Donor Exports?」

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According to the OECD Development Assistance Committee, Official Development Assistance (hereafter, ODA) is defined as a transfer from developed to developing countries, with aim of promoting economic development and welfare in recipient countries. Given that ODA are funded from taxpayers at home, however, the aid allocations are based on not just altruistic reasons but also economic and commercial interests for donor countries. This review summarizes the literature empirically examining the effects of ODA on donor exports and presents important areas to be explored by future research.

It is widely held that aid could promote donor exports through various channels. Aid directly links to donor exports with formal or informal tying arrangements (Jepma, 1991). In the long-run, aid might create a stock of goodwill to purchase goods and services from the donor to secure aid in the future (Arvin and Baum, 1997; Arvin and Choudhry, 1997). In addition, once a recipient country has imported goods and services from the donor through aid, some of the costs associated with the information barriers have been reduced, leading to a positive effect on current and future donor exports (Wagner, 2003).

Analyzing a panel dataset covering EU-15 donor and 108 recipient countries for 1975-1992 with an ordinary least square (OLS) estimator, Nilsson (1997) examined the relationship between gross ODA disbursement and donor exports. He found that the elasticity is 0.23 holding other factors constant, suggesting that the return of US\$1 of OAD is US\$ 2.6 of donor exports. Expanding the scope of donor countries beyond European donors, Wagner (2003) finds the elasticity is 0.062, meaning that the return of an additional ODA is US\$ 0.73. Additionally, he investigated the potential heterogeneity in ODA-export nexus among donor countries, particularly focusing on Japan, and found such no evidence. Analyzing more recent data, Nowak-Lehmann et al (2013) found the

elasticity of 0.05. Martinez-Zarzoso et al (2014a) found the elasticity of 0.039 and presented that the returns of ODA substantially differ among donor countries.

Instead of estimating an average ODA-export elasticity for *all* donor countries, several papers have focused on a specific donor country. Zarin-Nejadan et al (2008) examined the case of Switzerland. Analyzing a panel dataset covering 99 recipients for 1966-2003, they found average ODA-export elasticity of 0.045. The other studies found the elasticity of 0.13 for Germany (Nowak-Lehmann et al., 2009), 0.034 for Netherland (Martinez-Zarzoso et al, 2014b), and 0.075 for Denmark (Hansen and Rand, 2014).

The last strand of the literature has focused on aid-for-trade (AfT), which was launched during the World Trade Organization Ministerial Meeting held in Hong Kong in December 2005. The AfT initiative aims to accelerate economic growth and to alleviate poverty through an integration into global trade system by helping developing countries strengthen their supply-side and trade-related infrastructures and reduce adjustment costs associated with multilateral trade liberalization (Hoekman, 2011). AfT comprises three sectors: economic infrastructure, building productive capacity, and trade policy and adjustment. Since its launch the scale of bilateral AfT has continued to grow, reaching US\$ 19.5 billion in 2019 that accounted for 25% of bilateral ODA in a gross disbursement basis.

Analyzing a panel dataset covering 167 importers and 172 exporters for 1990-2005, Helble et al (2012) examined the relationship between gross AfT disbursements and donor exports. They found average AfT-export elasticity for all donor countries of 0.004, suggesting that an additional US\$ of AfT leads to US\$1.33 increase in donor exports. Analyzing gross AfT commitments, Pettersson and Johansson (2013) found the elasticity of 0.091. Huhne et al (2014) found the elasticity of 0.033 for total donor exports, rather than bilateral donor exports. In contrast, Hoekman and Shingal (2020) found the *negative* AfT-export elasticities for both goods (-0.012) and services (-0.038).

One important avenue for future research is to analyze the heterogeneous effects of ODA on donor exports. The aid modality, philosophy, and administration substantially differ among donor countries. For example, Japan's ODA has been characterized as its high concentration on economic infrastructure in which Japan has a competitive advantage, allowing Japanese firms to win a contract over Japan's aid projects and programs. This works presumably as an implicitly-tied aid, making Japan ODA-export

nexus stronger than others for the case of Japan. Despite such potentials, less attention has been paid to the heterogeneity in ODA-export relationship among donor countries.

The other important area in the literature relates to an identification strategy. The fundamental issue is that ODA is not randomly assigned to recipient countries, making it difficult to obtain a valid counterfactual scenario in the absence of ODA. To deal with this issue, prior research has employed a fixed-effect model and generalized method of moment technique. However, these approaches cannot rule out the possibility of omitted variable biases. To this regard, the Bartik instrument formulated by Goldsmith-Pinkham et al (2020) could pave the way for new approach to the fundamental empirical problem. The Bartik instrument is constructed by sum of ODA sectors of all recipient countries weighted by country-sector-period specific shares. Given that the Bartik instrument is relatively easy to construct and check the validity for exclusion restriction, the causal effects of ODA could be estimated in more transparent manner.

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