What is the relation between foreign aid and trade?

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Introduction

This essay will discuss the relationship between foreign aid and trade. Major scholars on both topics often find two outcomes: 1) trade openness is commonly part of the constitution of "good" policies that promotes effectiveness of foreign aid, hence endorses growth (Burnside and Dollar, 2000). Furthermore there is a a great amount of literature about trade promoting growth directly (Frankel and Romer,1999; Wacziarg and Welch, 2008; Sachs and Warner,1995). 2) Foreign aid does not promote growth by its own (Easterly,2003; Denizer et al,2014) thus, probably, if trade promotes growth, foreign aid does not have a significant "indirect" effect on trade. This essay will discuss if foreign aid correlates with trade.

According to the institutional measure of the World Bank the Country Policy and Institutional Assessment (CPIA), trade is part of the structural policies criteria (World Bank-IDA). The World Bank is, by far, the greatest organization that deals with foreign aid management and allocation. A priori and according to the World Bank criteria, trade is an element of what a good institution is, hence its correlation should be positive with foreign aid for developing countries that receives it. However, does foreign aid affect future trade? I will apply a model in order to answer this question.

The result suggests that for a set of developing countries[1] between 1990-2013,foreign aid correlates positively with future trade; e.g foreign aid applied yesterday will be positively correlated with today's trade. It is important to mention that I am not looking for causal relations, just a correlation (as an exercise) that can help to visualize how both variables relate across the selected developing countries and time.

This essay is divided as follows: First a literature review in relation of the effects of foreign aid on economic performance. Second, a simple exercise that will try to find a correlation between foreign aid and trade and test the aforementioned hypothesis; and finally a conclusion.

Literature review

Lets start with the effects of foreign aid in "general" economic performance, for this purpose I will understand "general" economic performance as growth. Burnside and Dollar (2000) argued that aid had a positive impact on growth by examining a data base generated by the World Bank, their concrete finding is that countries with good fiscal, monetary and trade policies benefit more from aid, in terms of growth, than countries that do not have this "correct" policies [Burnside & Dollar (2000)]. The authors construct a "good" policies index and one of its components was the openness dummy developed by Sachs and Warner (2005), this step can manifest the positive concept that trade has on aid. Furthermore, the allocation of aid does not necessarily respond to positive trend

[1] I took low and low middle income countries form the world development indicators of the World Bank in order to guarantee that they received official development assistance.

of good policies of countries [Burnside & Dollar (2000)]. I will discuss more on this paper's empirics in the next section do to the fact that I will apply a related but (much more) basic model.

On the field of aid allocation, Wood(2008) find divergent paths between the Collier and Dollar (C-D) model -which was the top reference for aid allocation- and the Millennium Development Goals (MDGs), basically the MDGs differentiate with C-D model because of the interests of donors of seeing poverty decline faster (an explanation on why aid allocation goes more to Africa than elsewhere) and the time dynamics [Wood (2008)]. Aid allocation is fundamental to assure the optimization of its effects.

On the other hand, Easterly(2003) argued about no clear relation between aid and growth and that the generalization of terms such as "aid", "growth" and "good policies" plus a deeper hunting in data can provide insignificant statistical results for the empirical analysis of Burnside and Dollar (2000) [Easterly (2003)]. In fact one critique related to the Burnside and Dollar paper is the input of trade openness in their policy index arguing that also provides a confusion in the terminology [Easterly (2003)]. Furthermore Easterly (2003) gives empirical sustain in order to focus more on the quality of aid rather than quantity [Easterly (2003)].

More recently Rajan and Subramanian (2008) provide more evidence for the non existence relationship between aid and growth, moreover they find no evidence of aid working more effectively on better policy environments. They conclude on addressing this issue in rethinking aid efforts and concentrate deeper on the channels in which aid can help rather than hinder growth [Rajan & Subramanian (2008)].

In relation to the "agent problem" in economics and to development project management, Denizer et al (2013) conclude that it is also important to asses the work of an international development assistance organization, in their case the World Bank, in the sense of evaluate the performance of the people in charge of the project and not solely on the good or bad policies of the country assisted.

As for now I have surveyed some literature that treats the relation of aid and growth leaving trade as part of this set of "good" policies which tries to explain the allocation of aid. In the next section I will present an exercise that study a correlation "the other way around", i.e putting trade as the dependent variable and try to see the effect of aid on it.

An exercise

In this section I want to present a model as an exercise to find any correlation as explained previously. This was thought because of this phrase in Burnside and Dollar (2000): "Intuitively, one would think that aid conditioned on good policy might have a positive effect on policy. Empirically, this is an interesting and open area for further research."Burnside & Dollar (2000).

I obtained a panel from the World Bank-world development indicators- from 1990-2013[2] of low and low middle income countries[3],and for these countries I took the variables trade/GDP and net official development assistance (constant 2012 dollars). I will treat the endogeneity problem with the lagged value of my independent variable (aid, in this case)[4]. The model is:

[2] I didn't choose a larger time frame because that could require more sophisticated econometric techniques

[3] it is important to mention that this distinction is made by the world bank, but with reference of current economic performance, i.e some countries that were low or low middle income in the 90's do not necessarily figure in the data

[4] This is not the most optimum approach to find causation. In fact Burnside and Dollar (2000) uses 2SLS to mitigate this effect. Normally a Instrumental Variable approach is needed in the case of looking for causal relations. I am just looking for a correlation.

Tab. 1: Results-fixed effects panel model

Trade	coefficient	P-value
$\log(\text{Aid})_{t-1}$	3.13*	0.07
const	8.91	0.799
obs	513	

*note: * 10% confidence interval-calculated with cluster standard errors*

$$^{trade_{it}}/_{GDP_{it}} = \alpha + \beta log(aid)_{i(t-1)} + \delta_{it} + \varepsilon_{it}$$

where i=country, t=time, α=constant, δ=country fixed effects and ε=error term.

The first impression from table 1 is that this exercise generates a positive value, so it seems that yesterday's aid correlates positively with today's trade in the range of a 10%confidence interval. Furthermore the size of the coefficient says that 1% of increase of lagged aid could affect positively by 0.0313 units of trade/GDP. Although it is a small amount and confident only at the 10% level it gives an interesting consideration for future and more depth research. Does aid (not necessarily conditioned) leave an effect that could affect other policy variables in the future?

Conclusion

In this essay I wanted to discuss about the question: What is the relation between foreign aid and trade? For this I have used some literature on the effect of aid in growth, in most of this literature trade is treated marginally, i.e is commonly a part of the set of good policies. However, does trade leaves something that can explain a change in policy variables such as future trade? to explore a little of this I made an exercise to start thinking of the correlation between yesterday's aid and current trade for a set of developing countries between 1990-2013.

My aim was to explore the "other way around" of the question as Burnside and Dollar (2000) proposed as a topic for further research using one component (trade) of the set of good policies as a dependent variable and how previous aid correlates with it. The results show a positive and little effect but questionable on its statistically significance. Nonetheless this first exercise could be developed further with better empirical techniques.

References

Burnside, C. & Dollar, D. (2000). Aid , Policies , and Growth: Comment. *American Economic Review*, *90*(4), 847–868.

Denizer, C., Kaufman, D., & Kraau, A. (2015). Good Countries or Good Projects ? Comparing Macro and Micro Correlates of World Bank and Asian Development Bank Project Performance. (April).

Easterly, W. (2003). Can Foreign Aid Buy Growth? *Journal of Economic Perspectives*, *17*(3), 23–48.

Jeffrey, F. & Romer, D. (1999). Does Trade Cause Growth. *American Economic Review*, (1991).

Rajan, R. G. & Subramanian, A. (2008). Aid and Growth: What Does the Cross-Country Evidence Really Show? *Review of Economics and Statistics*, *90*(4), 643–665.

Sachs, J. D. & Warner, A. (1995). Economic reform and the process of Global integration. *Brookings Papers on Economic Activity*, *1995*(1), 1–95.

Wacziarg, R. & Welch, K. H. (2008). Trade liberalization and growth: New evidence. *World Bank Economic Review*, *22*(2), 187–231.

Wood, A. (2008). Looking Ahead Optimally in Allocating Aid. *World Development*, *36*(7), 1135–1151.