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Selectivity and Foreign Aid Allocation: Is there an Improvement?

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electivity and Fo eign id llocation: Is the e an Imp ovement? [¤]

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Abstract

This p per ttempts to shed light on the beh vior of donors in their id lloc tion deci-sions. V rious motives of foreign id, such s the recipient country needs, the qu lity of the recipient country policies nd institutions nd the geopolitic l nd commerci l interests of the donors re tested cross 104 recipient countries for the period 1984-2003. It ppe rs th t the most needy nd meriting countries receive more id, emph sizing   positive selectivity of donors for the period observed. We then investig te whether there is n improvement in this selectivity for the period post-1998, corresponding to the emergence nd profusion of   liter ture promoting the import nce to link id with the recipient country perform nces. Our results show interesting ch nges in donors' beh vior over this recent period. We find cle r improvement in poverty selectivity which is ccomp nied by   decre se in the impor-t nce of commerci l interests. On the other h nd, id does not become more selective with respect to democr cy or infl tion, but we c n note n incre se for some donors in their id responsiveness to the qu lity of the recipient country institutions.

Keywords: Foreign id, selectivity, policies, institutions.

JEL cl ssific tion: F35; I30

[¤]

1 Introduction

The factors that should guide the allocation of aid funds by multilateral and bilateral donors have been a subject of debate as old as aid itself. Aid donors seem to agree that aid funds should be allocated according to the criteria of need and merit of the recipient country. More often than not, however, donors have been suspected of using aid flows to advance geo-political or commercial agendas that have more to do with their own interests than with the interest of recipient countries.

The debate came back to the forefront of practioners' and researchers' agendas with the development of a large literature trying to identify the conditions under which foreign aid is most beneficial (Burnside and Dollar, 2000), the embrace of multilateral donors of the idea of aid selectivity (World Bank, 1998; OECD, 2003) and the publication of several studies claiming that donors do not live up to their claims of aid selectivity (Alesina and Dollar, 2000; Collier and Dollar, 2002).

The aim of this paper is to shed light on this debate by first identifying the factors that have driven aid during the last two decades in order to see if there is a relationship between aid allocation and recipient country needs and performances. Second, we focus on the potential discontinuity for the period post-1998, to test the influence of the corner stone literature on aid effectiveness on donors' behavior.

To consider these issues, an empirical analysis is conducted for the period 1984-2004 across 104 developing countries. Aggregated bilateral and multilateral aid, as well as aid allocated by seven major donors - the UNDP, the World Bank (International Development Association), U.S., U.K., France, Germany and Japan - are regressed against a set of determinants. These determinants

and to countries with good policies. The work of Burnside and Dollar (2000) and the following literature such as Collier and Dollar (2001, 2002), which suggest that aid effectiveness depends on the quality of recipient countries' policies, have however a limited influence on donor behavior. Indeed, donors do not increase their selectivity with respect to democracy and inflation after 1998. However, they tend to be more sensitive to the recipient country's quality of institutions. This trend is accompanied with a non negligible increase in poverty selectivity which seems to fade the commercial interests of the donors with an aid which is less targeted to strategically important countries.

The next section provides a review of the most recent relevant literature while section 3 offers a descriptive statistical analysis of some of the main features in the data. Section 4 contains the main contributions of the paper, with an econometrical analysis using diverse panel data estimation procedures. Section 5 concludes.

2   Literature Review

Analyses of the allocation decisions of aid donors stretch over several decades and vary widely in their conclusions[1]. The last decade has seen an upsurge of the *aid effectiveness* literature accompanied by proposals asking donors to adapt their aid allocation practices in accordance with the findings of this literature.

The aid effectiveness literature uses the empirical framework from growth regressions to

environments, as measured by their inflation rate, budget deficits and openness to trade. The

nuity in donors' behaviour; the early 90s (end of communist regimes and late 70s (McNamara's presidency at the   orld Bank have also been proposed and tested in the literature.

Arguing that donors' allocation behavior has actually improved over time we find Dollar and Levin (2004 and Berthélemy and Tichit (2004 . Dollar and Levin (2004 use the most recent dataset and find that multilateral aid donors (and to a less extent bilateral aid donors

far from straightforward. The research community has not reached a consensus in this area and this makes the practice of aid selectivity a difficult task. To shed light on these debates, in this paper we focus on the potential discontinuity for the period post-1998, to test the influence of the corner stone literature on aid effectiveness on donors' behavior.

3   Descriptive statistics and graphical analysis

The econometric analysis of the nexsw5D(this -32n will be focused on the 20-year period from 1984 to 2003 to identify the main determinants of aid alloca-32n decis32ns and test for changes in the selectivity of donors. Before turning to this, we provide here an initial assessment of how aid flows have evolved over these two decades and how they have been related to relevant socioeconomic measures of recipient countries.

Figure 1 shows the evolu-32n of aid flows to all developing countries over the period 1984-2001[2]. Aid flows grew rapidly over the second half of the 1980s, stagnated during the whole decade of the 1990s and resumed a fast growth pace at the turn of the century. If we decompose aid flows in its two main components, bilateral and multilateral aid, we notice that they have evolved quite similarly over this period. In fact, bilateral aid represented roughly 70% of all aid during most of these years; the remaining being accounted for by multilateral aid. Figure 2 depicts the distribu-32n of aid among the four main recipient reg32ns: Asia, Africa, the Americas and the Middle East. The Middle East's share in total aid has been below 8% during all these years until recently, when geopolitical developments dictated a major surge in aid flows. The Americas has been steadily receiving about 20% of global aid, but this share has fallen over the last few years. Asia and Africa, finally, are the two major aid recipient reg32ns with a share of between 30 and 35% of global aid flows to each of them. These numbers reveal that Africa, whose popula-32n is about a fourth of Asia's popula-32n, receives much more aid per capita.

The last paragraph hints at the existence of large differences in the amounts of aid per pers2n that developing countries receive. Over the period 1984-2003 the median amount of aid received by a developing country has been 52 U D per pers2n per year, but much variability exists around this figure. Aid per person per year varies from as little as 4 U D for India and China to values well above 100 U D for a large number of small countries.

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[2]Details on the defini-32n and sources of variables can be found in the nexsw D43(ss)-32n.

Figure 1: Aid Flows, 1984-2001

Figure 2: Aid Flows by Regions, 1984-2001
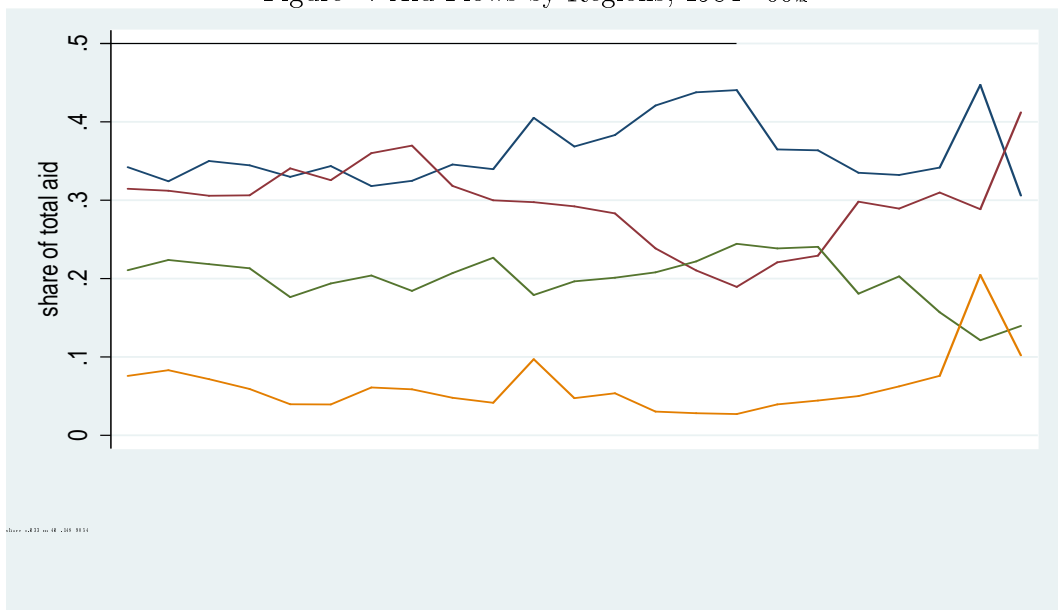
It would be natural to expect that these large differences in aid received per capita are due to differences in developing countries' needs and merits, along the lines of our previous discussion.
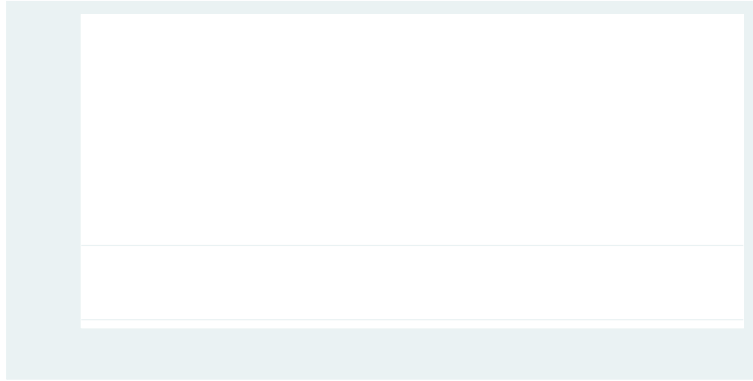
Figure 3: Aid and GDP per capita

Figure 4: Aid and HDI
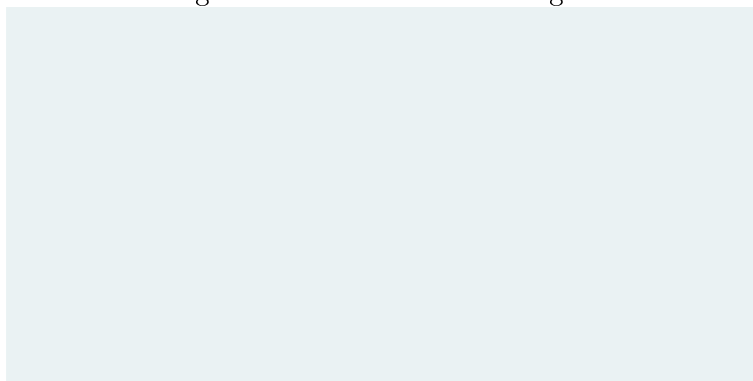

Figure 5: Aid and Political Rights

Figure 1: Aid and Population
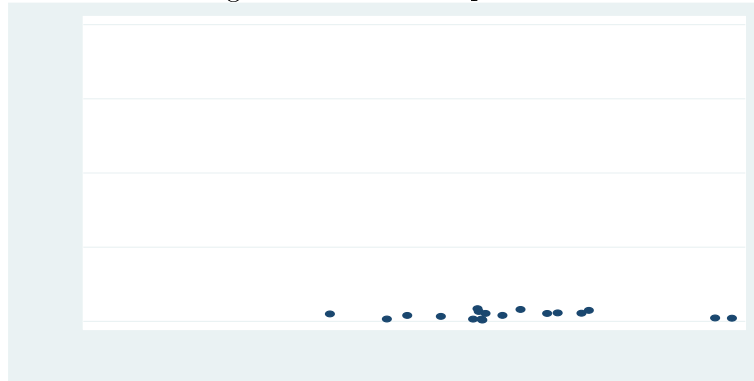
controlling for measures of the quality of domestic policies and institutions. e turn to this type of analysis in the rest of the paper.

4   Empiri⁻al Methodology and Data

This section presents our baseline empirical specification and data sources. Our first aim is to investigate how recipient countries' needs and merits together with donors' interests determine the allocation of foreign aid by donors. e analyze e(h(e -4lo - -30.3ﬂuampior of all bilateral donors taken

The data on aid are gross Official Development Assistance (ODA and is collected from the Organization for Economic Cooperation and Development (OECD . The data has a certain number of zero observations, denoting that not all donors give aid to all recipient countries in all years. As the logarithm of these observations would be non defined, we use the transformation ln(1 + gross ODA instead, which allows us to consider all observations in the dataset. Our sample considers the aid allocated across 104 developing countries over the 1984-2003 period. Countries with missing information about their macro-economic variables such as Afghanistan, Albania, Bhutan or Eritrea have been removed from the sample.

The nature of the dependent variable leads us to employ two alternative econometric procedures to estimate the effect of our explanatory variables on aid flows. First, we use a standard panel regression with fixed effects; as displayed in the above equation. The interest of this procedure is that the included fixed effects control for all omitted time-invariant country characteristics such as geopolitical importance.[4] By removing all cross-sectional variation and only leaving the time variation, the method of fixed-effects allows us to investigate the donors' responsiveness to

country given the donors' stated willingness to target aid to alleviate poverty. e have also used the Human Development Index (HDI as an alternative measure of recipient countries' needs. The results have been very similar to those obtained using GDP per capita and we report only the latter ones in this paper.[5]

The indicators of recipient countries' merits are selected to inform us on the quality of their policies, political system and general rule of law. Low inflation is expected in countries following equilibrated macroeconomic policies, and we take it as a proxy for appropriate macroeconomic

the paper we will also include dummy variables for former colonial status in order to measure the geopolitical motive as well as the commercial one.[7]   e may also add that these variables can only be included when we analyze the behavior of individual countries, not when we analyze multilateral institutions or groups of donors.

factors. Inflation and democracy have always the expected sign, and democracy is statistically significant in all regressions. Only the results for institutional quality are less conclusive and do not allow us be sure of the importance of this variable. Interestingly, multilateral and bilateral aid do not appear to respond differently to the factors considered here. Differences among their estimated coefficients are not very large and tend to be not statistically significant. This result is not consistent with the idea that multilateral aid should be more efficient than bilateral aid as promoted by Burnside and Dollar (2000 and Dollar and Levin (2006 . However, this result is in line with Nunnenkamp and Thiele (2006 who find no significant evidence that the targeting of multilateral aid, in terms of favoring poor countries with good policies, is better than that of bilateral aid. Another noteworthy result is the relatively modest differences between the estimates from the panel fixed-effects methodology and those from the Tobit methodology. GDP per capita, inflation and democracy have the same effects with both types of estimation; only the results for our institutional quality variable change considerably.

Table 2 continues with the analysis of donor behavior by considering aid given by the five largest bilateral donors. The results are in accordance with those presented previously. Once again needs and merits have the expected effect on the allocation of aid flows, although a few exceptions can be noticed. The effect of GDP per capita is not as consistent as in Table 1. hile only negative coefficients are statistically significant, there are also some instances of positive (and not significant coefficients. Inflation and democracy leave much less doubts as to their effect, with inflation having a negative sign and democracy a positive one in all but one regression. Only institutional quality, as before, presents a very mixed picture; with a clearly positive effect for Germany and Japan and a clearly negative one for the U. .

everal papers in the literature have also found an important role for indicators of need and merit in aid allocation. Easterly (2007 , for instance, finds that GDP per capita has been negatively related to aid flows since the mid-1970s and Dollar and Levin (2006 have a similar result starting in 1984. Dollar and Levin also state that "donors have been consistently supporting democracy since 1984" based on the results they obtain. As here, these last authors also find that the relationship is much weaker between aid and what they call "Rule of law"; which is a measure of institutional quality similar to the one we use in this paper. Berthélemy and Tichit (2004 , finally, also find aid flows to be negatively related to GDP per capita and positively related to a "political governance" variable.

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Tobit model dealing with the influence of the institutional quality variable on French aid (Table 2) disappear when we removed the fixed-effects (Table 3). This may be due to the omission of a relevant correlated variable in the Tobit model resulting in a significant bias in the parameter estimated for the included variable institutional quality. To shed light on this possibility, in an unreported table, we run an OLS regression without fixed-effects for the aggregated bilateral aid and the UNDP aid (as can be seen in Table 1, the coefficients estimated for institutional quality by the fixed-effects model and the Tobit model have opposite signs). Once again, the results of the OLS model without fixed-effects are the same as the Tobit model. More precisely, the coefficients estimated for institutional quality have a negative impact on aggregated bilateral aid and on UNDP aid, indicating that because of omission variable bias, the Tobit model produces inconsistent estimates for institution quality.

Table 1: The determinants of multilateral and bilateral aid, 1984–2003

	ln multilateral aid		ln bilateral aid		ln IDA aid		ln UNDP aid	
	FE 1)	Tobit 2)	FE 3)	Tobit 4)	FE 5)	Tobit 6)	FE 7)	Tobit 8)
ln GDP per capita	¡0.772^a	¡0.978^a	¡0.642^a	¡0.890^a	¡0.469^b	¡3.728^a	¡0.221^a	¡0.602^a
	(0. 68)	(0.056)	(0.20)	(0.062)	(0.2??)	(0.096)	(0.074)	(0.0 7)
ln inflation	¡0.097^a	¡0.170^a	0.009	¡0.226^a	¡0.078^a	¡0.454^a	0.001	¡0.080^a
	(0.0 8)	(0.0?6)	(0.024)	(0.04)	(0.029)	(0.066)	(0.0)	(0.0)
ln democracy	0.446^a	0.860^a	0.578^a	0.524^a	0.559^a	1.098^a	0.158^a	0.097^a
	(0.08)	(0.087)	(0.099)	(0. 05)	(0.094)	(0. 92)	(0.04)	(0.0?4)
ln institutional quality	0.237	¡0.333	0.589^a	¡0.669^a	0.019	¡0.338	0.164^b	¡0.242^a
	(0. 49)	(0.2)	(0. 79)	(0.24)	(0.222)	(0.?8)	(0.082)	(0.075)
ln population	¡0.303	0.635^a	¡0.671	0.3??				

Table 2: The determinants of major bilateral donors' aid, 1984–2003

	ln French aid		ln German aid		ln U.S. aid		ln U.K. aid		ln Japanese aid	
	FE 1)	Tobit 2)	FE 3)	Tobit 4)	FE 5)	Tobit 6)	FE 7)	Tobit 8)	FE 9)	Tobit 10)
ln GDP per capita	0.048	−1.127^a	−0.296^c	−0.003	−0.793^a	−1.943^a	−0.523^a	−1.413^a	0.027	−1.133^a
	(0.?52)	(0.048)	(0.?7?)	(0.06?)	(0.262)	(0.095)	(0.?9?)	(0.049)	(0.2?2)	(0.072)
ln inflation	−0.029	−0.077^a	−0.032	−0.075^a	−0.059^c	−0.174^a	−0.101^a	−0.106^a	−0.060^b	−0.112^a
	(0.0?9)	(0.028)	(0.02?)	(0.027)	(0.0?2?)	(0.04?)	(0.0?7?)	(0.024)	(0.02?)	(0.0?)
ln democracy	0.226^a	−0.049	0.488^a	0.173^b	0.634^a	1.262^a	0.460^a	0.728^a	0.441^a	0.350^a
	(0.062)	(0.07?)	(0.08?)	(0.079)	(0.096)	(0.?27?)	(0.057)	(0.078)	(0.096)	(0.088)
ln institution al quality	0.279^b	−0.397^b	0.766^a	0.302^c	−0.264	−2.313^a	0.217^c	0.216	0.746^a	0.783^a
	(0.?28)	(0.?88)	(0.?7?)	(0.?8?)	(0.2?7?)	(0.268)	(0.?2?)	(0.?75)	(0.2?)	(0.?99)
ln population	0.211	0.037	−0.004	1.027^a	0.969^b	−0.025	0.003	0.187^a	−0.438	0.381^a
	(0.254)	(0.0?)	(0.476)	(0.04?)	(0.4??)	(0.046)	(0.2?5?)	(0.028)	(0.?9?)	(0.045)
ln exp/gdp*	0.113^a	0.536^a	0.054	−0.455^a	0.155^a	0.688^a	0.089	0.351^a	0.223^a	0.521^a
	(0.0??)	(0.0?)	(0.046)	(0.047)	(0.05?)	(0.046)	(0.054)	(0.0?2?)	(0.05?)	(0.04?)
Constant	−0.664	17.509^a	1.911	−12.674^a	2.73	33.850^a	5.092^c	12.770^a	4.832	0.573^a
	(2.776)	(?.?62)	(4.8?)	(?.48)	(4.927)	(?.78)	(2.694)	(?.00)	(4.?4)	(?.596)

Table 3: The determinants of major bilateral donors' aid: the role of geopolitical factors, 1984-2003

	ln French aid		ln German aid		ln U.S. aid		ln U.K. aid		ln Japanese aid	
	OLS 1)	Tobit 2)	OLS 3)	Tobit 4)	OLS 5)	Tobit 6)	OLS 7)	Tobit 8)	OLS 9)	Tobit 10)
ln GDP per capita	¡0:423[a]	¡0:479[a]	¡0:027	¡0:002	¡1:251[a]	¡1:946[a]	¡0:611[a]	¡0:746[a]	¡0:935[a]	¡1:094[a]
	(0.044)	(0.049)	(0.052)	(0.06)	(0.06)	(0.092)	(0.044)	(0.055)	(0.059)	(0.078)
ln inflation	¡0:005	¡0:021	¡0:071[a]	¡0:089[a]	¡0:138[a]	¡0:170[a]	¡0:084[a]	¡0:103[a]	¡0:090[a]	¡0:099[a]
	(0.022)	(0.024)	(0.024)	(0.027)	(0.0?)	(0.0?9)	(0.0?6)	(0.02)	(0.028)	(0.0?)
ln democracy	0:158[a]	0:198[a]	0:149[b]	0:157[b]	0:856[a]	1:287[a]	0:517[a]	0:662[a]	0:380[a]	0:417[a]
	(0.055)	(0.06)	(0.067)	(0.076)	(0.088)	(0. 2)	(0.05)	(0.064)	(0.079)	(0.088)
ln institutional quality	¡0:017	¡0:134	0:674[a]	0:619[a]	¡1:589[a]	¡2:007[a]	0:268[b]	0:361[b]	0:681[a]	0:531[a]
	(0. 4)	(0. 52)	(0. 59)	(0. 76)	(0.2 4)	(0.258)	(0. 22)	(0. 4)	(0. 9)	(0.204)
ln population	0:350[a]	0:398[a]	0:958[a]	1:068[a]	0.051	¡0:013	0:442[a]	0:521[a]	0:387[a]	0:

5.2 Is t ere an Improvement in Sele tivity?

The next step in our empirical analysis is to test whether the above reported responsiveness of aid to countries' needs and merits has become more marked over the last few years. As we discussed before, since the late nineties a large body of research has been advancing the cause of aid selectivity and has succeeded to find a hearing in multilateral aid agencies and governments of donor countries. Here we interrogate the data to see if any change in donors' behavior can be detected.

In this aim, we start by dating the hypothesized change in donors' behavior to 1998, the year of publication of Burnside and Dollar's "Aid, Policies and Growth" as a discussion paper at the orld Bank. This paper can be taken as the starting point of the recent literature and has been

and Levin (2006) do not mention any change in the donors' focus on poorer countries. Only Nunnenkamp and Thiele (2006) present some evidence in this direction since their results show bilateral aid becoming more responsive to GDP per capita over the period 1999-2003. The different results of Easterly (2007) may be explained by the fact that his empirical analysis of the aid-GDP per capita nexus does not control for other variables. Dollar and Levin (2006), on the other hand, do control for democracy and institutional quality but their comparisons are made by sectioning the sample in several five-year periods instead of using a properly constructed dummy variable and interacting it with the relevant regressors, as we do here.

hen we turn our attention to our indicators of merit, the picture is much less convincing. There does not appear to be a change in the attitudes towards inflation; some bilateral donors actually gave less attention to this variable over the last few years than they formerly did. Democracy fares even worse, with coefficients denoting a statistically significant reduction in the importance given to democracy by France, Germany, the U. . and by all bilateral donors taken together. The one indicator of merit for which there is more evidence of an increased regard is institutional quality. The IDA, Germany and Japan all show a statistically significant increase in the importance given to this variable. For other donors the picture is more mixed but tends to be positive.

These results are in accordance with those of Dollar and Levin (2006), for whom there has been a considerable improvement in the responsiveness of aid towards institutional measures. Our results are less sanguine that theirs, however, since we find such an improvement for some donors but not for donors taken as a whole. On the other hand, we do agree in pointing out that the role of democracy did not become more pronounced, though it must be added that democracy had been a significant determinant of aid long before the late 1990s.

Overall, the above results indicate that a change in donors' behavior can be identified since the late 1990s, although this change might not necessarily be what one expects. Foreign aid appears to be more focused towards poorer countries, probably as a consequence of the prominent place given to Africa in recent multilateral conferences. There does not seem to be, however, an equally strong trend towards selecting countries with good policies and institutions. One reason for that

improve aid effectiveness. For example, as emphasized by Dalgaard et al. (2004), considering the budget balance of the recipient country could be detrimental for the improvement of education or health. As we advanced above, Table 5 also test for changes in the role played by bilateral trade in donors' decisions. The general tendency here is for a reduction in the importance of trade, although few coefficients are statistically significant. e may thus hypothesize that this is another area in which changes in donors' behavior can also be observed, though in a lesser degree than for GDP per capita. A large literature, among it Alesina and Dollar (2000 and Akram (2003), finds that aid is significantly distorted away from poor countries because of trade and geopolitical interests. Interestingly, our findings show an improvement in aid agencies' activities. Indeed, the increase in selectivity based on need in the recent period tends to fade trade policy considerations that often distort aid allocation. Finally, as it should be expected, the orld Bank is the donor that has the most important improvement in terms of selectivity after 1998, indicating that the agency tends to follow its own recommendations. Indeed, the orld Bank has significantly increased its aid responsiveness to democratic poor countries with good institutions.

Table 4: Changes in multilateral and bilateral donors' behavior

Table 5: Changes in major bilateral donors' behavior

	ln Fr nce . id		ln Germ ny . id		ln U.S. . id		ln U.K. . id		ln J p n . id	
	FE	Tobit	FE	Tobit	FE	Tobit	FE	Tobit	FE	Tobit

6   Con⁻lusion

The paper addresses two issues in the allocation of foreign aid. First it analyzes the degree of selectivity of foreign aid during the two last decades.   econd it tests the influences of the "aid effectiveness literature" on donors behaviors by investigating whether foreign aid has become

given the difficulty and lack of consensus regarding the measurement of these types of aspects. Donors might have directed their efforts towards a signal whose significance is seldom in doubt. The allocation of foreign aid, we conclude, has seen significant improvement over the last decade but awaits further advance in the identification of good policies and institutional environment.

Referen es

Akram, T., "The International Foreign Aid Regime: ho Gets Foreign Aid and How Much?," *Applied conomic*, 2003, *35*, 1351–5 .

Ale ina, A. and B. Weder, "Do Corrupt Governments Receive Less Foreign Aid?," *American conomic Review*, 2002, *94* (4 , 11 –1137.

_ **and D. Dollar**, " ho Gives Foreign Aid to hom and hy?," *Jo rnal of conomic Growth*, 2000, *5*, 33– 3.

Berthélemy, J.-C., "Bilateral Donors Interest vs. Recipients' Development Motives in Aid Allocation: Do all Donors Behave the ame?," *Review of Development conomic*, 200 , *10*, 179–194.

_ **and A. Tichit**, "Bilateral Donors' Aid Allocation Decisions: A Three-Dimensional Panel Analysis," *International Review of conomic and Finance*, 2004, *13*, 53– 74.

Bird all, N., S. Clae en , and I. Di an, "Policy electivity Forgone: Debt and Donor Behavior in Africa," *World Bank conomic Review*, 2003, *17* (3 , 409–435.

Burn ide, C. and D. Dollar, "Aid, Policies, and Growth," *American conomic Review*, 2000, *90* (4 , 847–8 8.

Cogneau, D. and J.-D. Naudet, " ho Deserves Aid? Equality of Opportunity, International Aid, and Poverty Reduction," *World Development*, 2007, *35* (1 , 104–1 0.

Collier, P. and A. Hoeffler, "Aid, Policy and Growth in Post-Conflict Countries," ropean conomic Review, 200 , *48*, 11 5–1145.

_ **and D. Dollar**, "Can the orld Cut Poverty in Half? How Policy Reform and Effective Aid can Meet International Development Goals?," *World Development*, 2001, *9*, 1787–180 .

_ **and _** , "Aid Allocation and Poverty Reduction," ropean conomic Review, 200 , *46*, 1475–1500.

_ **and J. Dehn**, "Aid, hocks, and Growth," 2001. orld Bank orking Paper, n° 88, The orld Bank, ashington, DC.

Dalgaard, C.-J. and H. Han en, "On Aid, Growth and Good Policies," *Jo rnal of Development St die*, 2001, *37*, 17–41.

— , — , **and F. Tarp**, "On the Empirics of Foreign Aid and Growth," *conomic Jo rnal*, 2004, *114*, F191–F21 .

DFID, " trategic Review of Ressource Allocation Priorities," 2003. DFID Discussion Paper.

Dollar, D. and V. Levin, "The Increasing electivity of Foreign Aid, 1984-2003," *World Development*, 200 , *34* (12 , 2034–204 .

Ea terly, W., "Can Foreign Aid Buy Growth?," *Jo rnal of conomic Rer pective*, 2003, *13* (3 , 23–48.

— , "Are Aid Agencies Improving?," *conomic Policy*, 2007, pp. 33–ͤ78.

— , **R. Levine, and D. Roodman**, "New Data, New Doubts: A Comment on Burnside and Dollar's "Aid, Policies, and Growth" (2000 ," *American conomic Review*, 2004, *94* (3 , 774–780.

Greene, W., "The Behaviour of the Maximum Likelihood Estimator of Limited Dependent Variable Models in the Presence of Fixed Effects," *conometric Jo rnal*, 2004, *7*, 98–119.

Guillaumont, P. and L. Chauvet, "Aid and Performance: A Reassessment," *Jo rnal of Development St die*, 2001, *37* (, ͤ–92 .

Han en, H. and F. Tarp, "Aid and Growth Regressions," *Jo rnal of Development conomic*, 2001, *64* (2 , 547–570.

Len ik, R. and H. White, "Are there Negative Returns to Aid?," *Jo rnal of Development St die*, 2001, *37* (, 42–ͤ5.

cGillivray, ., "Modelling Aid Allocation: Issues, Approaches and Results," 2003. UNU-IDER Discussion Paper No. 2003/49.

Nunnenkamp, P. and R. Thiele, "Targeting Aid to the Needy and Deserving: Nothing but Promises?," *The World conomy*, 200 , pp. 1177–1201.

OECD, "Aid Effectiveness and electivity," 2003. OECD DAC Journal 4 (3 .

World Bank, "Assessing Aid: What Works, What Doesn't and Why?," 1998. Oxford University Press.

_ , "World Development Report 2000/01: Attacking Poverty," 2000. Oxford University Press.

_ , "The Role and Effectiveness of Development Assistance: Lessons from World Bank Experience," 2002. Mimeo.