

# **Rethinking Aid Effectiveness when Governance is Endogenous and Poverty Aversion Explicit**

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# 1. Introduction

- The trade-off between needs and governance is at the heart of all modern approaches to aid allocation. It necessarily arises because the most needy countries are also the worse-governed ones (see the fragile countries).
- This trade-off reflects the tension between Millenium Development Goals of poverty reduction and the increasing demand for aid effectiveness.
- The main problem is that the most needy countries may be excluded.
- There are two possible solutions: (1) increase aid, and (2) bring external discipline. But (1) is unrealistic.
- We are left with solution (2), which is what donors increasingly do.

- Adopting (2) means that budget support cannot be applied to the poorer and worse-governed countries. The ideal of ‘aid ownership’ must thus be sacrificed lest these countries should be deprived of aid.
- Donors tend to like « aid darlings »: countries which are poor and relatively well-governed so that they can be treated as « partners » and the three principles of aid effectiveness, aid equity, and aid ownership can be simultaneously implemented. In reality, however, these countries hardly exist or they do not prove able to maintain their good governance for long (e.g., Tanzania and Uganda).
- It is therefore important to have a clear understanding of the implications of external discipline, which is equivalent to attributing a second policy instrument to the donor community: external discipline in addition to country aid shares.

## 2. Aid allocation without external discipline

### 2.1 The standard two-country model with no role for poverty aversion

In this model, there is a major role for the concept of « Need-Adjusted Aid Effectiveness » (NAAE), defined as the ratio of quality governance to the average income of the poor. Quality governance can be thought as the portion of the aid flow that effectively reaches the poor.

Three key results:

- When a country's NAAE rises, either because of an improvement in its governance or a fall in its poor's incomes, the aid share allocated to it by the donor will increase, other things being equal (no change in the parameters of other countries). And vice-versa when the other country's NAAE rises.

- Moreover, the lower the total aid amount available, the higher the aid share of the country with the highest NAAE. And vice-versa.
- Corner solutions: The larger the availability of aid the less likely is the donor to exclude the country with the smallest NAAE. And vice-versa.

## 2.2 The standard model with an explicit role for poverty aversion

- The effect of a rise in the governance quality of the poorer country on its aid share now needs to be qualified as follows:

When the poverty aversion of the donor is below some critical threshold higher than unity, the aid share increases, yet above that threshold, the aid share decreases (the income effect outweighs the substitution effect).

- Whichever is the case, the post-aid income of the poor increases in the country whose governance has improved: the effect of that improvement therefore outweighs the fall in aid when the latter happens.

### **3. Aid allocation with external discipline**

The donor can now influence the governance prevailing in recipient countries and we assume that the external discipline imposed can be tailored to the situation observed in each country (depending on its poverty and domestic governance parameters).

The problem is quite complex because external discipline is costly. If it were not, and aid is available in sufficient amount, the donor would choose to allocate aid so as to equalize post-aid incomes across all the recipient countries (the Rawlsian allocation rule).

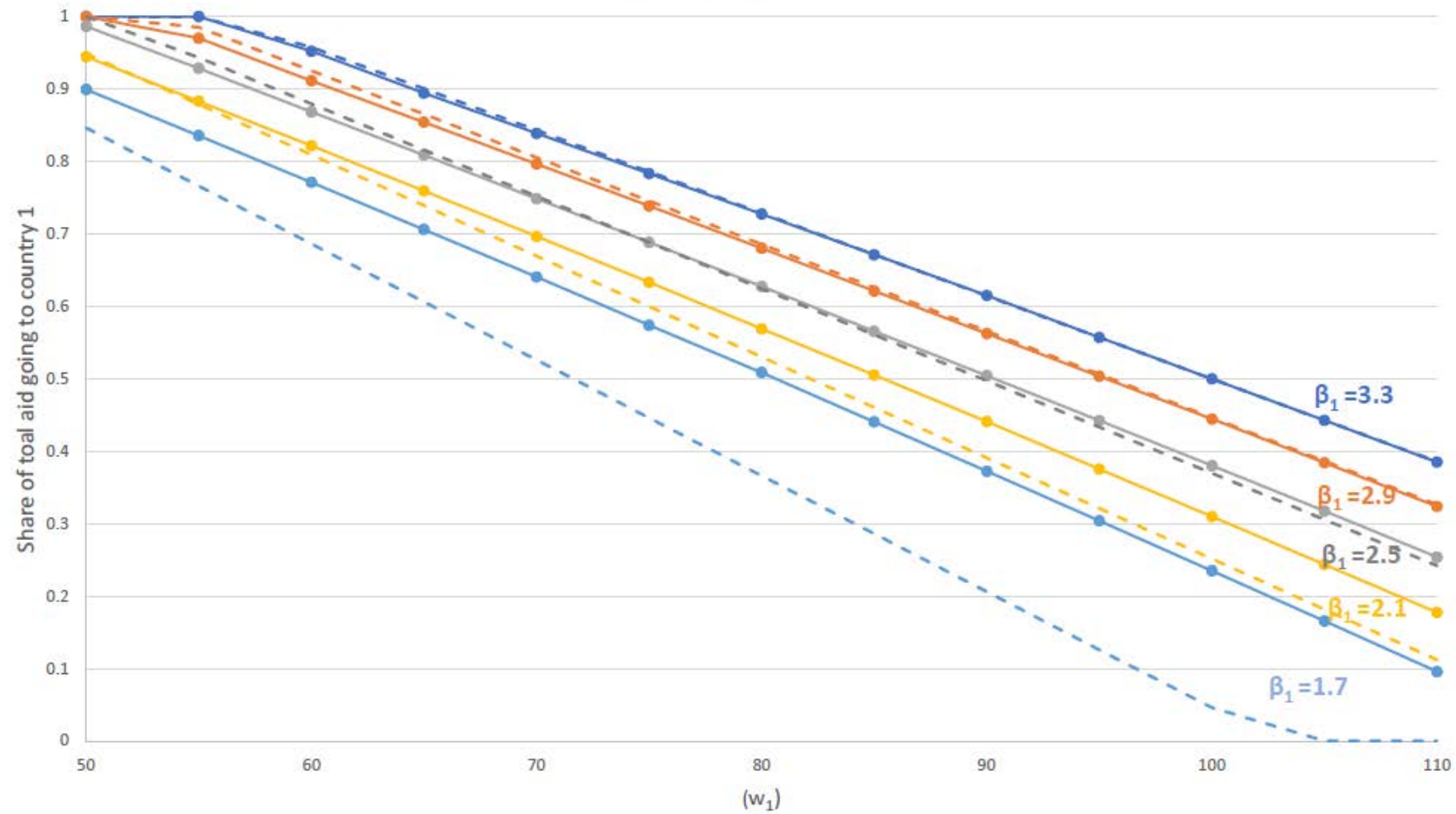
Since external discipline is costly, the donor must optimize its amount applied to each country at the same time as he chooses the optimal country shares in the aid amount.

- Results regarding optimal discipline:
  - Other things equal, the donor responds to a decrease in the initial poor's income or in the domestic governance quality of a country by raising the level of external discipline.
  - The donor intensifies external discipline if the aid amount allocated to a country is reduced, thus reflecting a substitutability between the two donor's policy instruments.
  - The donor again raises the amount of external discipline applied to the poorer country when his poverty aversion is stronger.

- Comparison between exogenous and endogenous governance:
  - With the help of Figure 1, we first verify that whether under exogenous or endogenous governance, for a given level of domestic governance when country 1 is poorer, it receives a larger portion of the total aid resources.
  - Country 1 (the poorer country) may continue to receive aid even though it is considerably more ineffective than country 2 on the counts of both income (or needs) and domestic governance.
  - When governance in country 1 is initially low compared to country 2, external discipline always causes its aid share to be higher than under exogenous discipline, even when its poor's income is extremely low compared to country 2. With a value of 2.9 , however, there is hardly any difference between the two curves and the opposite result tends to be obtained: the donor's tailored discipline leads to a (slightly) lower share for country 1 whenever its income is smaller than in country 2 .



Figure 1. Share of country 1 as a function of poor's income ( $w_1$ ) for selected values of overall governance ( $\beta_1$ ) under endogenous (solid line) and exogenous (dashed line) donor's discipline ( $w_2=100$ ;  $\beta_2=3.3$ )



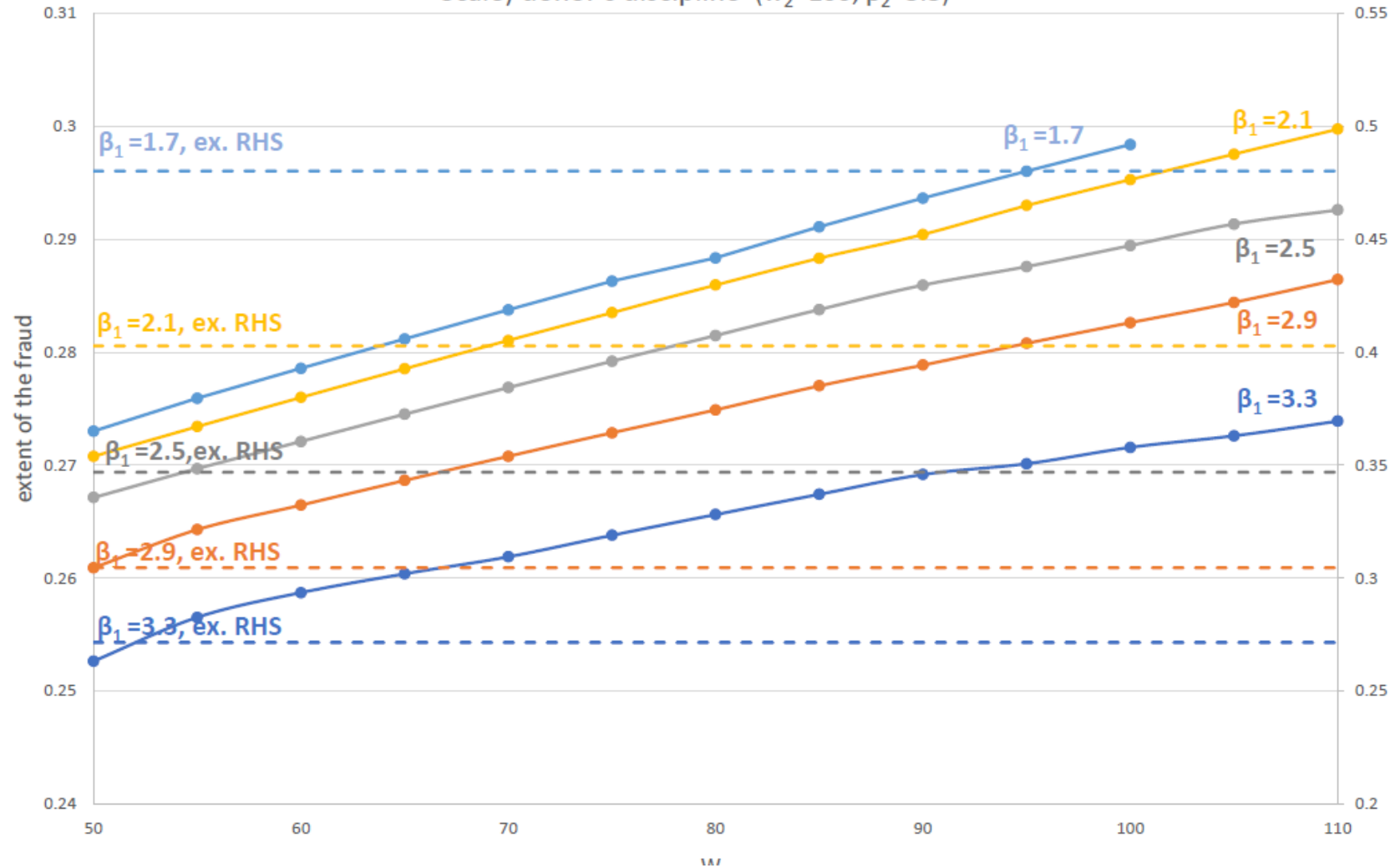
- While the difference in country aid shares is large when the gap in overall governance is wide, it becomes quite small when this gap is narrow. This is particularly evident if the initial difference in per capita incomes between the two countries is not too important.

*Intuition:* Since disciplining a country is costly and the cost function is convex, the donor faces a trade-off between external discipline and the allocation of aid. When domestic governance does not differ too much between the two countries, the donor finds it profitable to use external discipline to improve governance and thereby raise the incomes of the target beneficiaries in country 1. He then does not need to increase that country's aid share compared to exogenous discipline. It may even be the case that the share of aid received by country 1 will be smaller. When the disparity in initial governance levels increases, however, the role of aid shares becomes more important, and recourse to external discipline is less attractive.

To sum up, endogenizing external discipline modifies the allocation of aid in a way favorable to the worse-governed country. The magnitude of this effect increases with the inter-country gap in governance, as long as the income of the poor in the worse-governed country is above some critical threshold that decreases with the level of its domestic governance. Below that level, a relatively high external discipline makes a higher share of aid unnecessary to reduce the income gap between the poor of the two countries.

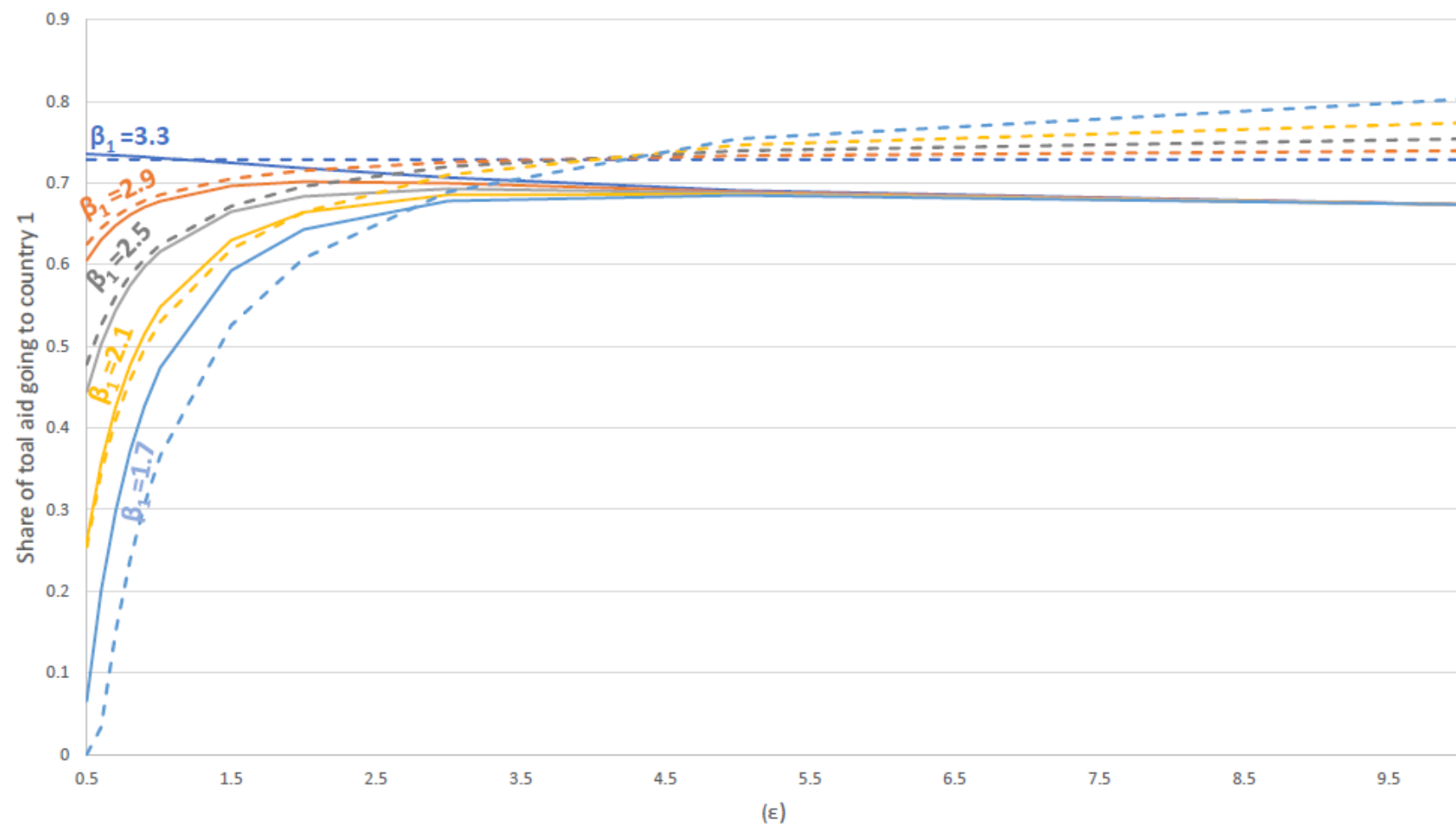
*Figure 2* shows that, in comparison with exogenous discipline, endogenous discipline has the effect of dampening the effect of variations in domestic governance. Thus, the greater the inter-country disparity in overall governance, or the lower the level of governance in the worse-governed country, the stronger the reduction of embezzlement achieved as a result of optimal external discipline and, by deduction, the more severe the amount of that discipline applied to country 1.

Figure 2. Extent of the fraud in country 1, depending on poor's income and overall governance ( $\beta_1$ ) under endogenous (solid line) and exogenous (dashed line, Right-Hand Scale) donor's discipline ( $w_2=100$ ;  $\beta_2=3.3$ )



- Results on optimal aid shares and the effect of poverty aversion (allowing for optimized external discipline):
  - An increase in the initial income per head of the poor in country 1 reduces this country's share of total aid, and the aid amount per head among the poor.
  - An improvement in the domestic governance of a recipient country leads to a higher share of aid, except when the donor's poverty aversion exceeds some value that depends on the parameters of the model. In all cases, an improvement in domestic governance causes the per capita income of the poor to increase.
  - The poverty aversion value of the reversal threshold is higher under endogenous than under exogenous governance, meaning that the reversal is less likely to occur when the donor can use external discipline to relieve poverty in the poorer country.

Figure 3. Share of country 1 as a function of poverty aversion ( $\epsilon$ ) for selected values of overall governance ( $\beta_1$ ) under endogenous (solid line) and exogenous (dashed line) donor's discipline  
( $w_1=80$ ;  $w_2=100$ ;  $\beta_2=3.3$ ; )



- When the donor's poverty aversion increases, he not only increases the amount of external discipline applied to the poorer (and worse-governed) country, but he also raises its aid share, *everything else equal*.
- When this poverty aversion becomes quite strong, the amount of discipline imposed on the poorer country tends to be very large, as a result of which the importance of the aid share awarded to that country become small: it could even be lower under endogenous than under exogenous governance (see *Figure 3*).
- In sum, the aid share of the poorest and worse-governed country increases with the degree of poverty aversion of the donor as long as the overall governance/pre-aid income gap between the two countries is large enough and poverty aversion is below some critical level.

- Effect of a variation in supply factors:
  - A reduction in the size of total aid available increases the use made of external discipline and the share of aid going to the poorer country, if the income gap between the two countries is large enough.
  - An increase in the unit cost of aid delivery, i.e. external discipline, causes a drop in the external discipline but its effect on the aid share depends on the overall governance and the poor income gaps between the two countries as well as on the donor's poverty aversion.
  - There exists a relationship between the external discipline exerted in the two countries that depends only on the overall governance gap between the two countries.



## 4. Conclusion

- In a world where total aid tends to decline, recourse to external discipline is necessary if the objective of the donor community is to reduce poverty where it is most needed, ie in those with a « fragile state ».
- Moreover, while a decrease in total aid works against fragile countries under exogenous governance, the opposite is true when the donor can use external discipline and the inter-country gap in the poor's income is large (which is precisely the case). In the former situation, scarce aid makes it pricey so that it needs to be delivered where it can be used most effectively. In the latter situation, by contrast, external discipline can cancel the effect of scarce aid by compensating for low governance in the most needy countries.