



**How to take into account vulnerability
in aid allocation criteria:
improving the performance based allocation**

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May 31, 2010**



Background of the paper

- Aid allocation of MDBs, and some bilateral donors, governed by the « performance based allocation, PBA »
- PBA gives an overwhelming weight to the assessment of policy of recipient countries (CPIA) and does not take into account their vulnerability, although a matter of concern for a long time, revived by the recent crisis
- Move of ideas and better appreciation of the need to take it into account for aid allocation, illustrated by
 - UN SG report to the ECOSOC Development Coop. Forum 2008
 - Joint Ministerial Declaration on Debt Sustainability, CW & OIF, 2009
 - Study of the African Development Bank 2008-09
- Vulnerability is on the agenda for aid allocation



Outline of the paper

- (1) Why to take vulnerability into account in aid allocation, and lack of human capital as well: the reasons to improve the present PBA...
- (2) Main lines of the reform(s) proposed: 2 approaches, including political economy considerations
- (3) Vulnerability as improving performance measurement or an augmented performance based allocation (APBA)
- (4) Vulnerability as a component of an equity and performance based allocation (EPBA)
- (5) Other options



6 reasons to improve PBA,... all related to vulnerability

- Restoring the real meaning of performance
- Increasing equity by compensating structural handicaps
- Drawing lessons of aid effectiveness literature
- Avoiding double punishment
- Increasing transparency by limiting exceptions
- Enhancing stability, predictability and countercyclicality



Restoring the real meaning of performance

- Everybody favours performance
- Performance refers to outcomes with respect to given initial conditions
- CPIA is an assessment of policy rather than a real measure of performance
- It is a subjective assessment according uniform norms, not fitting the alignment and ownership principles
- Its rationale has changed from the initial paradigm: less a factor of aid effectiveness, than an incentive...



Increasing equity by compensating structural handicaps

- Aid allocation should look for equity
- Promoting equity involves equalizing opportunities
- Opportunities are equalized by compensating structural handicaps
- Main structural handicaps of LICs are vulnerability to exogenous shocks and low level of human capital, not taken into account in PBA
- These two handicaps, along with low level of income pc, are the main features and identification criteria of LDCs



Drawing lessons of aid effectiveness literature

- Two main lessons on conditional aid effectiveness
- Present policy is a significant factor of growth, but its impact on aid effectiveness is uncertain
- Vulnerability is a significant negative factor of growth , but its impact on aid effectiveness is positive (Chauvet & Guillaumont 200&, 2004, 2010; Collier and Goderis, 2010)
- Legitimate to take vulnerability into account...



Avoiding double punishment

- Populations suffering from bad governance are at the same time penalized by aid allocation
- Bad governance should be taken into account through aid modalities even more than through aid allocation



***Increasing transparency and consistency
by making the rule general and effective
and treating fragile states in an integrated framework***

- Present PBAs, implemented with multiple exceptions: country or per capita caps, floors, special treatment for fragile states or post conflict countries: weakens the relationship between « performance » and allocation (fig1)
- Moreover loose relationship between allocation and commitments, and even more disbursements (fig 2)
- Treatment of FS/ PCC should be not only transitional and curative, but also permanent and curative, through the consideration of structural vulnerability

Figure 1. IDA aid allocation in 2009 as a function of the agreed measure of performance

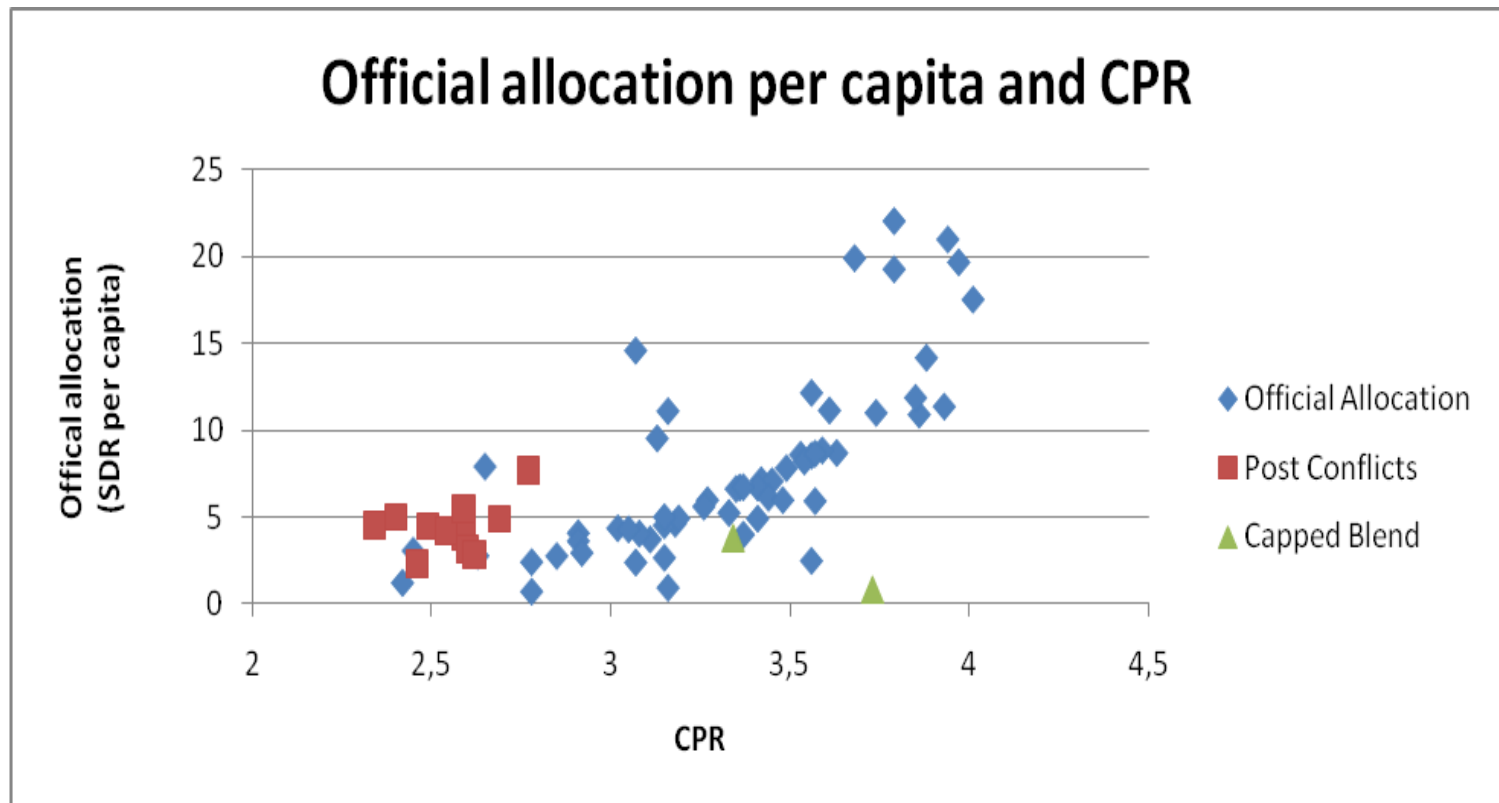
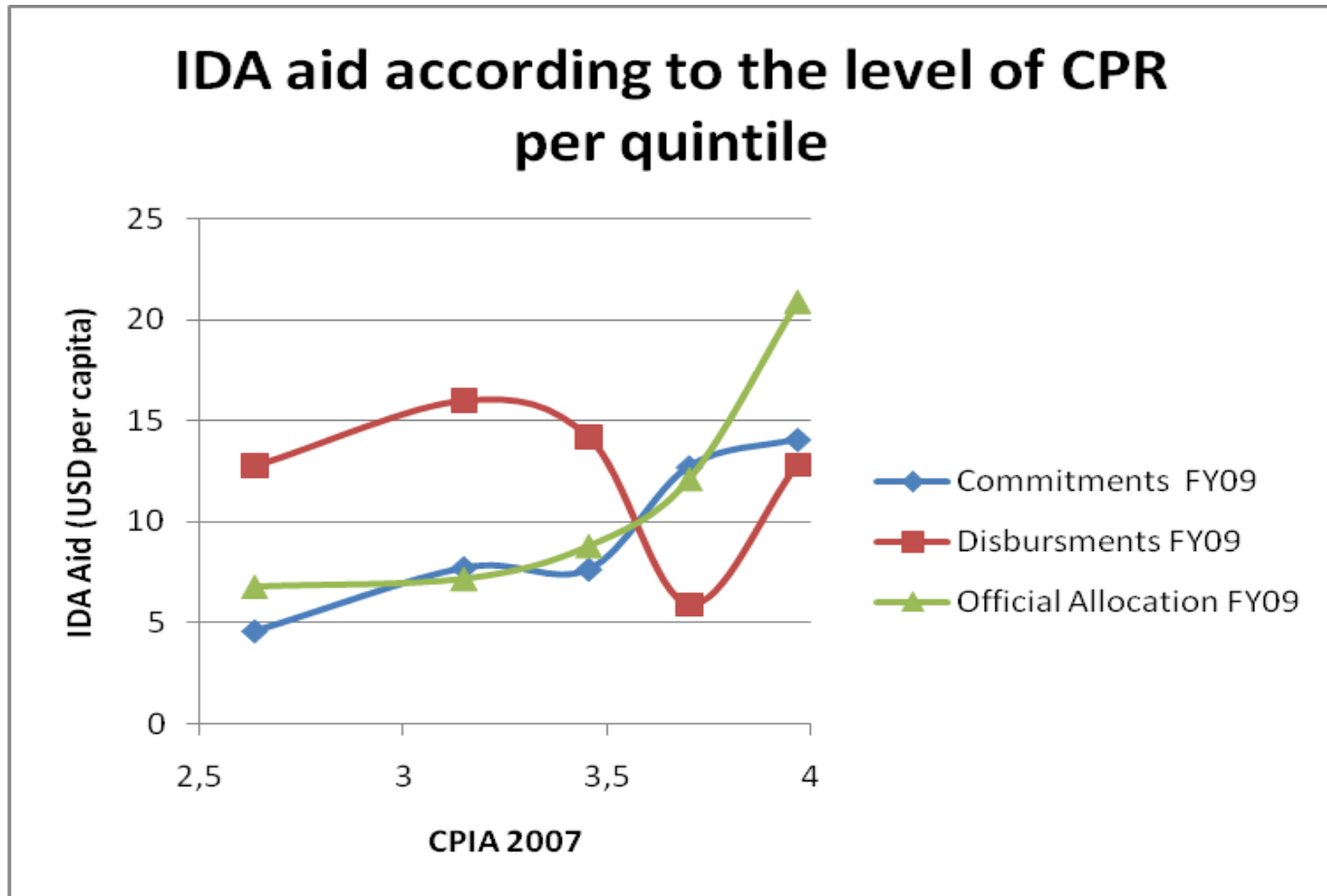


Figure 2. Aid per capita as a function of CPR at the quintile level: allocations, commitments and disbursements compared





***Making the allocation more stable, more predictable
and less procyclical***

- Amplified effects of small changes of CPIA on allocation
- Instability of CPIA
- Procyclicality of CPIA
- Taking into account structural handicaps should make allocation less sensitive to CPIA, more stable and less procyclical
- See next presentations



Possible approaches to an improvement



Three principles to be met

- effectiveness (or performance)
- equity (or needs);
- transparency (and simplicity)

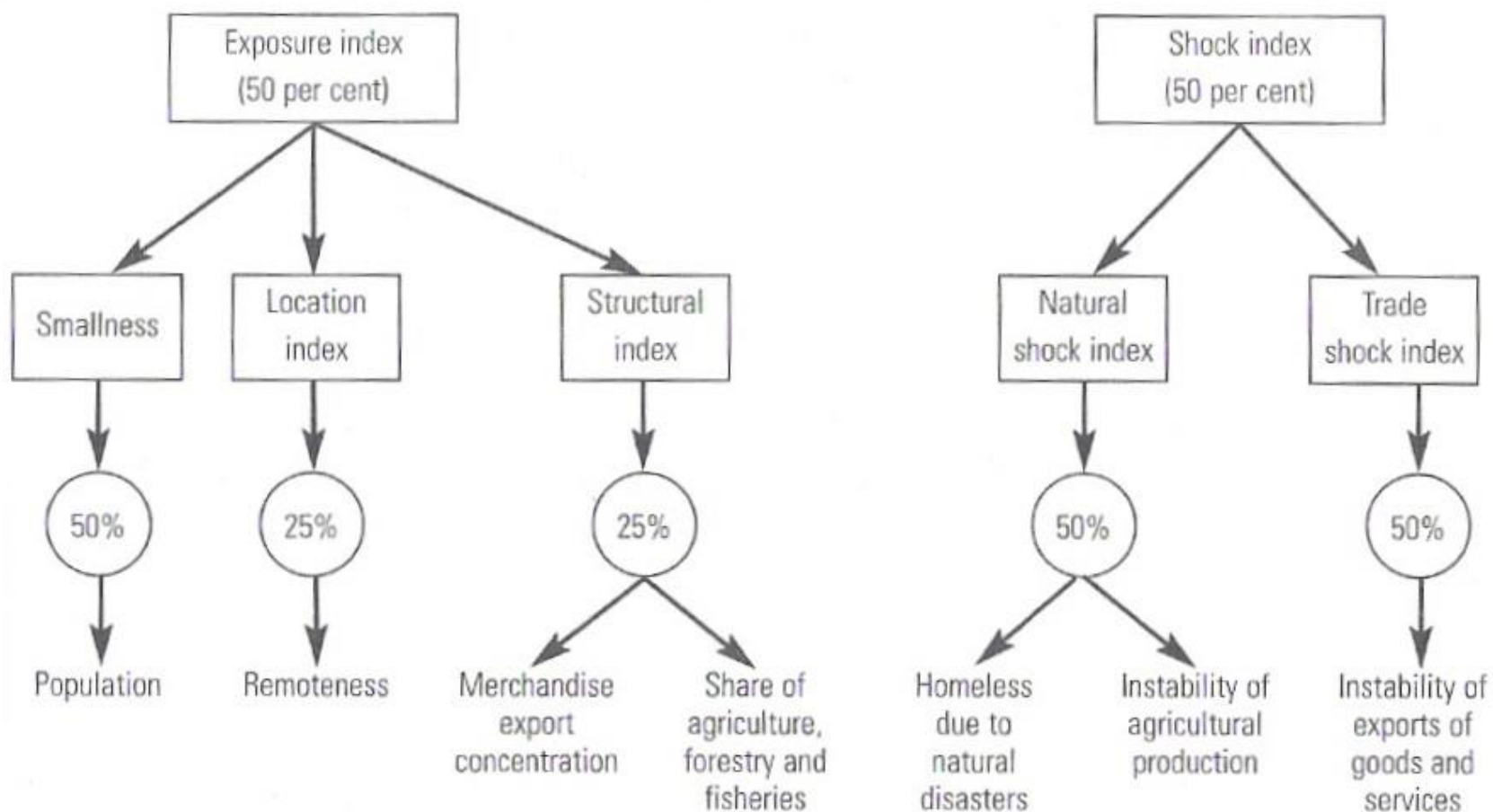
***by taking into account structural vulnerability
and lack of human capital,
and possibly using available indicators***

- agreed measures of
 - vulnerability (EVI)
 - and human capital (HAI)
- used at UN for LDCs identification

The economic vulnerability index: EVI components

- *Exposure to the shocks*
 - population size
 - remoteness from world markets
 - share of agriculture, forestry, fisheries in GDP
 - export concentration of merchandises
- *Size of the shocks*
 - instability of exports of goods and services
 - instability of agricultural production
 - homelessness due to natural disasters

Economic Vulnerability Index (EVI)



the human assets index

- HAI, Indicator of the quality of human assets, indicator of handicap rather than well-being with 4 components, 2 health indicators and 2 education indicators:
 1. % of population undernourished
 2. Child mortality rate (survival at 5)
 3. Gross secondary school enrolment ratio
 4. Adult literacy rate



Two ways for addressing previous issues

- (1) vulnerability considered within an augmented PBA;
- (2) vulnerability as a component of an allocation balancing effectiveness and equity
- need to add a political economy dimension:
 - minimizing losses? irrelevant;
 - keeping losses within acceptable range



Vulnerability in an augmented performance based allocation

« APBA »



PBA formula (IDA)

- $A_i = \text{CPR}_i^5 \cdot \text{GNIpc}_i^{-1.125} \cdot P_i$
- $\text{CPR}_i = 0.24 \text{ CPIA}_{\text{ABC}} + 0.68 \text{ CPIA}_{\text{D}} + 0.08 \text{ PORT}$

Similar formula for AfDF

(main differences: CPR^4 and 0.2 PORT)



An augmented measure of performance

- To be a performance measure, CPIA (CPR) should be purged from the impact of the exogenous factors influencing it, as those captured by EVI and HAI
- The implicit model (cf next presentation):
$$\text{CPR} = - (a \cdot \text{EVI} + b \cdot \text{L HAI}) + c \cdot \text{GNIpc} + \text{res}(\text{CPR}) + \text{cte}$$
residual of CPR, a better measure of performance than the CPR itself
- Then introducing EVI and lack of human capital in the PBA formula is a way to obtain a better measure of performance



Simulations: choosing the weights

- Deletion of most exceptions (caps, floors, PC)
- Population exponent of 1, or 0.8 to compensate this deletion
- Empirical weights, drawn from regression (resid. CPR):
 $ACPR = 0.7 \text{ CPR} + 0.15\text{EVI} + 0.15\text{LHAI}$
- A priori weights (AfDB study):

$$ACPR = 0.75 \text{ CPR} + 0.25 \text{ EVI} \quad (\text{simulation 1, S1});$$

$$ACPR = 0.5 \text{ CPR} + 0.5 \text{ EVI} \quad (\text{simulation 2, S2});$$

$$ACPR = 0.33 \text{ CPR} + 0.33 \text{ EVI} + 0.33 \text{ LHAI} \quad (\text{simulation 3, S3}).$$



Table 3 : Shares of the total allocation by groups of countries

No base allocation, no caps, population to the power 0.8 instead of 1 in the formula.

	Official	S1	S2	S3
Total Allocation	8345,20	8350,72	8348,23	8348,23
Post conflict and re-engaging countries	9,65%	5,76%	8,99%	15,88%
Least developed countries	48,10%	48,85%	51,29%	61,91%
Low income countries	64,11%	61,68%	60,43%	65,13%
Africa	49,31%	51,53%	53,10%	60,80%



On the results

- Africa: always better
- LDCs: always better (or similar: S1/P1)
- Post-conflict and reengaging: only better with S3
- Cumulated level of losses/ additional resources needed: between 10% and 13% of total allocation
- The APBA approach leads to increase the weight given to EVI and HAI, also needed in the other approach



**Vulnerability as a way to balance effectiveness
and equity
« EEBA »**



Back to the principles

- Effectiveness: makes the following criteria relevant
 - policy (incentive...)
 - *and* vulnerability, due to the stabilizing impact of aid
- Equity: structural handicaps to be compensated
 - low human capital
 - *and* vulnerability again
- Transparency: simpler formula, where the allocation is a weighted average of 4 criteria, CPR, EVI, HAI, GNIpc

Methodological options

- Geometric average: closer to the present formula, the *elasticity* of allocation with respect to each criterion is independent of its level and the level of the other criteria; the *marginal impact* is not
- Arithmetic average: the reverse, and is the simpler: constant marginal contribution may be more understandable and relevant
- Rationale of a combination?



The formulas

- 12 simulations
 - , geo vs arithm,
 - population exponent of 1 or 0.8
 - 3 different weightings for CPR, EVI, LHAi and LGNIpc,
 - 0.5; 0.25; 0.125; 0.125
 - 0.4; 0.3; 0.15; 0.15;
 - 0.33; 0.33; 0.166; 0.166

- For instance:

$$PBA_i = (0.5 * CPR_i + 0.25 * EVI_i + 0.125 * LHA_i + 0.125 * LGNIpc_i) * P_i^{0.8}$$

$$PBA_i = (0.4 * CPR_i + 0.3 * EVI_i + 0.15 * LHA_i + 0.15 * LGNIpc_i) * P_i^{0.8}$$

$$PBA_i = (0.33 * CPR_i + 0.33 * EVI_i + 0.16 * LHA_i + 0.16 * LGNIpc_i) * P_i^{0.8}$$



The results

Table 7 . Shares of the total allocation by groups of countries

Without base allocation and cap, population to the power 0.8.

(Formulas 4)

	Official	Simulation 1	Simulation 2	Simulation 3
Total Allocation	8345,20	8345,20	8345,20	8345,20
Post conflict and re-engaging countries	9,65%	10,68%	11,01%	11,21%
Least developed countries	48,10%	49,82%	50,18%	50,39%
Low income countries	64,11%	58,69%	58,70%	58,68%
Africa	49,31%	49,44%	49,72%	49,88%
East Asia and Pacific	10,44%	7,98%	7,85%	7,77%
Europe and Central Asia	3,42%	4,96%	4,87%	4,83%
Middle East and North Africa	1,19%	1,92%	1,93%	1,93%
Latin America and the Caribbean	2,12%	2,73%	2,71%	2,69%
South Asia	33,52%	33,05%	33,01%	32,97%



What the results mean

- A reform of PBA taking into account vulnerability is possible
- Meeting the three above principles
- Preserving or increasing the share of poorest and targetted groups of countries: LDCs, post-conflict and Africa
- With losses staying in an acceptable range and likely to decrease: around 13%
- Then possibly compensated in a transitional way

Concluding remarks

- Summary results evidence the feasibility of a needed improvement of the present PBA, for IDA as well as for AfDF,
- A possible complement to treat PPC in an integrated framework: adding indicators of progress towards peace and security into the CPIA
- Why not to rely on ex post complementary finance? or vulnerability window? Still useful, but facing traditional issues of triggering, delays and conditionality. Need for a preventive policy, using aid as a resilience factor
- A substitute? A crisis prevention window (close to the additive last formula)



The proposal in a broader context

- The reform of allocation criteria is relevant not only for the MDBs, as far as it relies on general principles
- but diversity of donors with specific priorities and criteria
- Is the role of MDBs to show where and what to do?
- Or to make the global allocation of aid consistent with general principles, i.e. with an optimal global allocation?
- Being donor in last resort would radically change the criteria of IDA!

F&D*i*