

Performance Assessment, Vulnerability, Human Capital and the Allocation of Aid Among Countries

Professor Patrick Guillaumont, FERDI
Professor Mark McGillivray, ADRI and FERDI
Dr Laurent Wagner, FERDI

Introduction and Overview

- ▶ Critique Performance Based Allocation Models
 - Focus on the IDA allocation model
- ▶ Question the design of these models
 - Performance is defined too simply
 - Ignores initial conditions
 - Discriminates against low human capital pro-reform countries
 - Reductionist with respect to aid efficiency
 - Ignores other pre-conditionals for effective aid
- ▶ Provide simple statistical evidence in support of these criticisms
- ▶ Provides grounds for augmentation of performance based allocation models

IDA Allocation Formula

$$A_i = CPR_i^5 \left(\frac{GNI_i}{P_i} \right)^{-0.125} P_i$$

where A_i is IDA aid, CPR_i is country performance rating, GNI_i is gross national income and P_i is population, each for recipient country i .

CPR_i is defined as:

$$CPR_i = 0.24CPIA_i^{ABC} + 0.68CPIA_i^D + 0.08PP_i$$

where $CPIA_i^{ABC}$ is the mean of components A to C of the CPIA, $CPIA_i^D$ is component D of the CPIA and PP_i portfolio performance, each for country i .

Rationale

- ▶ Rewards performance
 - ex post conditionality and providing incentives for countries to reform
 - More reform, more aid
- ▶ Efficient
 - Broadly consistent with Collier–Dollar poverty efficiency
 - Maximises poverty reduction among countries eligible for IDA support by giving preference to countries in which aid is thought to be more effective, those with better policies and institutional performance
- ▶ Equitable
- ▶ Systematic
 - Imposes discipline on an otherwise chaotic process

Criticisms

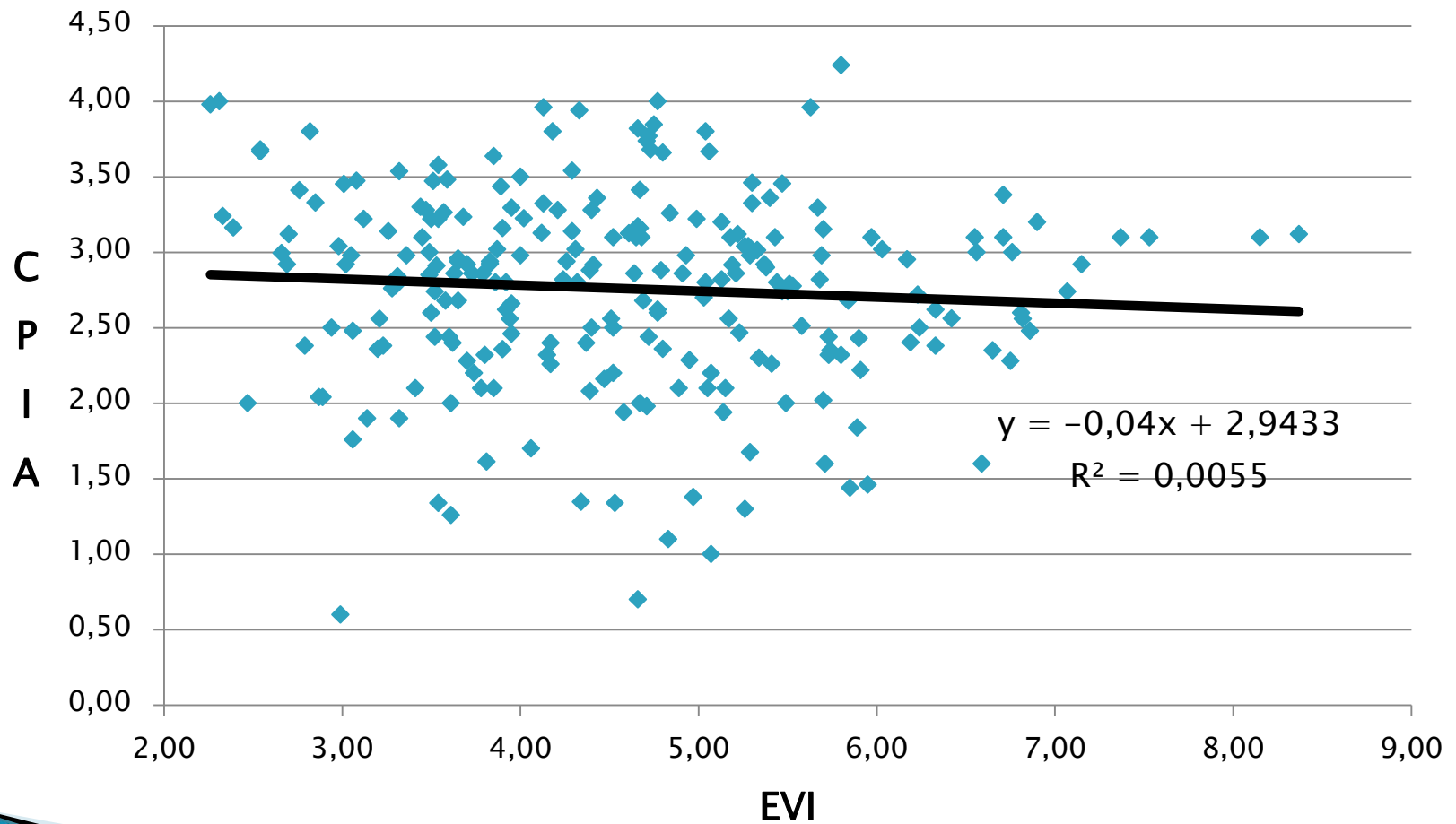
- ▶ Performance is defined too simply
 - Takes no account of initial conditions, human capital in particular
 - Penalises pro-reform countries that do not have the ability to reform, making a bad situation worse
 - Counter to providing incentive for economic reform
- ▶ Reductionist with respect to efficiency
 - Aid effectiveness is also a function of other variables
 - Structural economic vulnerability (Guillaumont and Chauvet, 2001, Chauvet and Guillaumont, 2004)

Empirical Analysis

- ▶ Do the data back up these criticisms?
 - Are CPIA and CPR scores negatively related with economic vulnerability, the latter measured by the EVI?
 - Are CPIA and CPR scores positively associated with human capital, the latter measured by the HAI (or negatively associated with low human capital)? (Note: such a correlation is a necessary but not sufficient condition for validation of the first criticism outlined above)
- ▶ We evaluate these questions using cross section data for 2007 and pooled data for 1975 to 2005

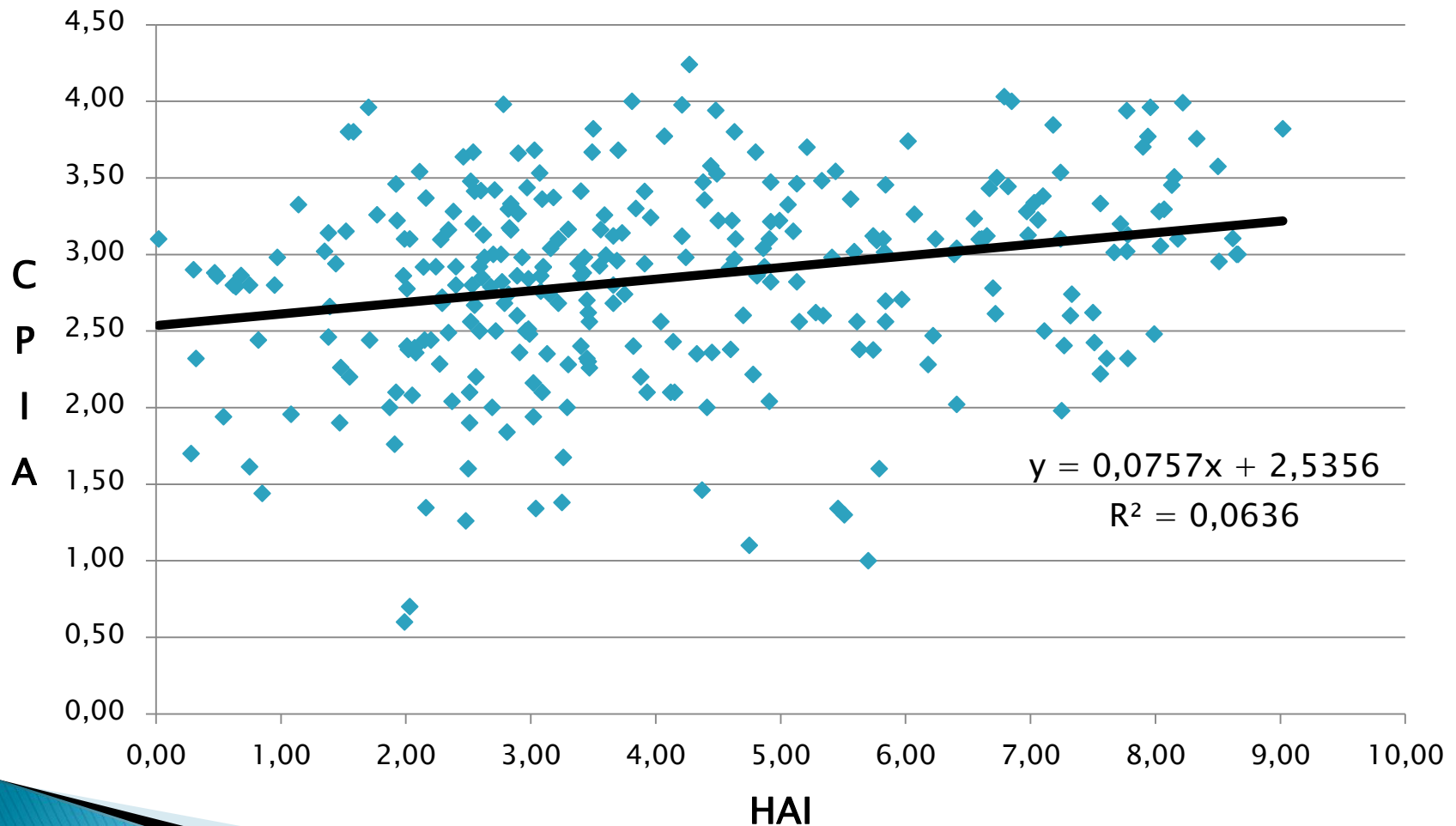
Performance and Initial Conditions

Scatter Plot of CPIA and EVI, 1975–2005



Performance and Initial Conditions

Scatter Plot of CPIA and HAI, 1975–2005



Performance and Initial Conditions: Econometric Evidence

- ▶ Estimates from 2007 and pooled data of five year averages from 1975 to 2000 for up to 110 countries (n=466)

	IDA Countries OLS, 2007	110 Countries Panel RE, 1975-2000	IDA Countries Panel RE, 1975-2005
EVI coefficients	-0.23 (0.06)***	-0.27 (0.04)***	-0.15 (0.08)**
HAI coefficients	0.14 (0.05)***	0.04 (0.05)	0.04 (0.05)

Robust standard errors in parentheses. The dependent variable is the CPIA and regressors also include GNI per capita, regional and time dummy variables. All continuous variables are in logarithms. * significant at 10%. ** significant at 5%. *** significant at 1%.

- ▶ The impact of EVI on the CPIA is strong and statistically significant in every regression
- ▶ Evidence for HAI is evident from the regression using 2007 data

Performance and Initial Conditions: Econometric Evidence

- ▶ Estimates from quartile regressions using pooled data of five years average from 1975 to 2000 for 110 countries (n=466)

Quartiles	Q25	Q50	Q75
EVI coefficients	-0.29 (0.04)***	-0.17 (0.03)***	-0.15 (0.03)***
HAI coefficients	0.09 (0.05)**	0.05 (0.05)	0.05 (0.05)

Bootstrapped standard errors in parentheses. Regressions have the CPIA as the dependent also include as regressors GNI per capita and regional and time dummy variables. All continuous variables are in logarithms. * significant at 10%. ** significant at 5%. *** significant at 1%.

- ▶ The impacts of EVI and HAI on the CPIA are stronger at lower levels of the CPIA

Performance and Initial Conditions: Econometric Evidence

- ▶ Estimates from quartile regressions containing EVI shock and EVI exposure variables and using pooled data from 1975 to 2005

Quartiles	Q25	Q50	Q75
EVI “Shock” components	-0.12 (0.04)***	-0.08 (0.03)***	-0.04 (0.02)*
EVI “Exposure” components	-0.19 (0.04)***	-0.12 (0.03)***	-0.13 (0.04)***
HAI	0.10 (0.05)**	0.04 (0.04)	0.02 (0.02)

Bootstrapped standard errors in parentheses. The regression has the CPIA as dependent variable and also includes GNI per capita and regional and time dummy variables as regressors. All continuous variables are logarithms. * significant at 10%. ** significant at 5%. *** significant at 1%.

- ▶ The impact of past shocks is stronger for lower CPIA levels ...
- ▶ ... while the EVI Exposure coefficients remain stable across quartiles.

Conclusions

- ▶ Performance in IDA and similar allocation models is poorly defined
 - Negatively associated with economic vulnerability
 - Negatively associated with human capital
- ▶ A strong case exists for augmenting IDA and similar allocation models with economic vulnerability and human capital measures

Thank you

Patrick Guillaumont, FERDI
Mark McGillivray, ADRI and FERDI
Laurent Wagner, FERDI