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Working Paper

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AGDI Working Paper, No. WP/14/028

Provided in Cooperation with:

African Governance and Development Institute (AGDI), Yaoundé, Cameroon

Suggested Citation: Asongu, Simplicé A. (2014) : A brief clarification to the questionable economics of foreign aid for inclusive human development, AGDI Working Paper, No. WP/14/028, African Governance and Development Institute (AGDI), Yaoundé

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AFRICAN GOVERNANCE AND DEVELOPMENT
INSTITUTE

A G D I Working Paper

WP/14/028

**A brief clarification to the questionable economics of foreign aid for
inclusive human development**

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AGDI Working Paper

Research Department

A brief clarification to the questionable economics of foreign aid for inclusive human development

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November 2014

Abstract

The study clarifies the questionable economics of foreign aid for inclusive human development. It investigates the effect of a plethora of foreign aid dynamics on the inequality adjusted human development index. Contemporary and non-contemporary OLS, Fixed-effects and a system GMM technique with forward orthogonal deviations are employed. The empirical evidence is based on a sample of 53 African countries for the period 2005-2012. The following findings are established. First, the impacts of aid dynamics with high degrees of substitution are positive. These include, aid for: social infrastructure, economic infrastructure, the productive sector and the multi-sector. Second, the effect of humanitarian assistance is consistently negative across specifications and models. Third, the effects of programme assistance and action on debts are ambiguous because they become positive with the GMM technique. Justifications for these changes and clarifications with respect to existing literature are provided. Policy implications are discussed in light of Piketty's celebrated literature and the post-2015 development agenda. We also provide some recommendations for a rethinking of theories and models on which development assistance is based.

JEL Classification: B20; F35; F50; O10; O55

Keywords: Foreign Aid; Political Economy; Development; Africa

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1. Introduction

The post-2015 challenges of sustainable development have clearly articulated the need for more inclusive policies (United Nations: UN, 2013, pp. 7-13). According to the narrative, development assistance is a critical factor in addressing the issues. In this light, pitfalls of the past can be avoided, inter alia: *‘Output may be growing, and yet the mass of the people may be becoming poorer’* (Lewis, 1955). *‘Lewis led all developing countries to water, proverbially speaking, some African countries have so far chosen not to drink’* (Amavilah, 2014). The celebrated *‘capital in the 21st century’* from Piketty (2014) has taken African nations to the stream again and this study partially assesses the challenging policy syndrome of how development assistance can help them to drink this time around.

The above intuition is inconsistent with a recent strand of literature which has raised doubts about the effectiveness of foreign aid (Ghosh, 2013; Krause, 2013; Monni & Spaventa, 2013; Banuri, 2013; Titumir & Kamal, 2013; Wamboye et al., 2013; Marglin, 2013). According to the narrative, aid to developing countries is substantially motivated by a neo-colonial agenda (Amin, 2014). A stance that is shared by Kindiki (2011) who has recommended Africa to strategically limit its reliance on international aid systems and Ndlovu-Gatsheni (2013) on the continent’s entrapment in neo-colonial webs of influence. Amin (2014) has further emphasised that models of development in developing countries should reflect what is needed by poor nations, as opposed to what Donors think is good for them². The need for developed countries to guide developing nations towards industrialisation in the view of Piketty is indirectly shared by Obeng-Odoom (2013) who has also recommended that policies towards development assistance should be guided by genuine needs in recipient countries. This strand is broadly consistent with celebrated aid literatures on

² The interested reader can find more literature on needs of developing countries like happiness and well being in Arvin & Lew (2010ab, 2011, 2012ab).

the need to rethink foreign aid policies, inter alia: the Eubank (2012) Somaliland hypothesis, Moyo's (2009) Dead Aid and Collier's (2007) Bottom Billion³.

In light of the above, a recent stream of African development literature has presented cases for the appealing effect of foreign aid on African institutions (Asongu & Jellal, 2013; Efobi et al., 2014), especially in dampening the adverse effects from some neoliberal policies (Kangoye, 2013). Some conclusions in the stream include, inter alia: the positive effect of aid depends on a conducive policy environment, measurement of aid and specification of the aid-growth nexus (Gyimah-Brempong & Racine, 2014), aid in primary education positively affects growth (Asiedu, 2014) and in Sierra Leone, only aid reflected in grants have effects that are pro-poor, with the impact more apparent in the long-run (Kargbo & Sen, 2014).

The above strand is also a consequence of a number of qualitative and quantitative studies that have focused on reinventing foreign aid (Easterly, 2008). These include, among others: the experiment on ending poverty by Sachs; the World Bank and IMF Poverty Reduction Strategy (PRS); the cost effectiveness of interventions (Banerjee & He, 2008); the imperative for more rigorous evaluations (Pritchett, 2008); Randomised Control Trials (RCTs, Duflo & Kremer, 2008); amputation, intensification and policy change based reforms (Pritchett & Woolcook, 2008); more articulation on 'searching for solutions' than on 'planning for solutions' (Easterly, 2006); APC or Advanced Purchase Commitment (Kremer, 2008); novel initiatives at the global level (Radelet & Levine, 2008); 'aid vouchers' to provide incentives for better/competitive service delivery by agencies of aid (Easterly, 2002, 2008) and a broad range of measures for more inclusive foreign land acquisition policies (Osabuohien, 2015; Asongu & Nguena, 2015).

³ There is also a heated debate on the effect of foreign aid on institutions in Africa. The interested reader can start from Okada & Samreth (2012) before exploring the plethora of studies that are focused on the underlying paper, among others: Asongu (2012, 2013), Asongu & Jellal (2013) and Efobi et al. (2014).

Unfortunately, as far as we have reviewed there is currently no study in the literature that has responded to Piketty's celebrated literature in light of reinventing development assistance. To the best of our knowledge, responses to Piketty's study have centered on reviews and commentaries. These include, inter alia: cross-checking of facts (Krusell & Smith, 2014; Branko, 2014); different perspectives to the inequality issue (Stiglitz, 2014); concerns about data quality (Reynolds, 2014) and reviews (Homburg, 2014; Allen, 2014).

By positioning the study on the instrumentality of foreign aid for inclusive development, we contribute by extending responses to Piketty's work and at the same time complementing the evolving literature on the post-2015 sustainable development agenda. More specifically, we clarify the findings of Asongu (2014a) which have presented the '*questionable economics of development assistance in Africa*'. The underlying study leaves room for improvement in at least three areas. First, it overlooks the heterogeneity of aid dynamics. Accordingly, three types of aid variables have been employed: total aid, aid from the Development Assistance Committee (DAC) and aid from Multilateral Donors (MD). We complement this area on variables by instead using 7 different types of aid, notably: aid to social infrastructure, aid to economic infrastructure, aid to the productive sector, aid to the multi-sector, programme assistance, action on debt and humanitarian assistance. The intuition for this complementarity is that the effect of aid on inclusive human development should depend on the type of aid because there are various motives behind aid. These same variables have been recently used by Efobi et al. (2014) in clarifying murky empirical conclusions on the effect of foreign aid on corruption.

Second, we employ a more robust methodology. The two-stage least squares method employed by the underlying study uses blanked instruments and fails to control for cross-sectional dependence and country-specific effects. We use Ordinary Least Squares (OLS), Fixed-Effects and System Generalised Methods of Moments (GMM) regressions. The GMM

estimation is modelled with forward orthogonal deviations as opposed to differencing to control for cross-sectional dependence. Third, the effect of foreign aid on development may require some lags and hence could be non-contemporaneous. We address this concern by modelling aid as both contemporary and non-contemporary.

Consistent with the first paragraph of the introduction, foreign aid can be instrumental in preparing developing countries for industrialisation in the narrative of Piketty (2014) and not in that of the Kuznets' (1955, 1971) conjectures which sustain an n-shape nexus between inequality and industrialisation. Accordingly, by focusing more on inclusive human development as opposed to growth, concerns of "immiserizing growth" (Bhagwati, 1958)⁴ can be handled to improve the encouraging poverty-reduction trend of African countries relative to the other regions of the World (Fosu, 2015). The rest of the study is organised as follows. Section 2 discusses the data and methodology. The empirical analysis and results are covered in Section 3. We conclude with Section 4.

2. Data and Methodology

2.1 Data

We examine a panel of 53 African countries with data from the Organisation of Economic Co-operation and Development (OECD), the United Nations Development Program (UNDP) and the World Bank for the period 2005 to 2012. The periodicity and aid indicators are consistent with those employed by Efobi et al. (2014) in clarifying the debate on 'the effect of foreign aid on corruption' from Okada & Samreth (2012), Asongu (2013) & Asongu & Jellal (2013). The dependent variable which is the inequality adjusted human development index

⁴ This occurs when economic prosperity in growth terms is associated with negative income distribution externalities.

(IHDI) is in accordance with that employed by the underlying study we seek to clarify (Asongu, 2014a).

The aid and dependent variables are summarised in Table 1 below. The summary statistics shows that the variables are quite comparable. From the variations, we can expect reasonable estimated relationships. The aid variables are defined in logarithms to enable comparisons in means and standard deviations. The employment of control variables proliferates instruments or limits ‘over-identification restrictions’ which substantially bias the system GMM results. Accordingly, some GMM specifications entail limited or no control variables for this reason (see Osabuohien & Efobi, 2013, p. 303).

Table 1: Definition of variables, sources and Summary statistics

	Definitions/ Sources	Mean	S.D	Min	Max	Obs
Inclusive development	Inequality Adjusted Human Development Index (log)/UNDP, World Bank WDI.	0.486	0.130	0.129	0.809	351
Aid to Social Infrastructure	Foreign aid directed at human development purposes such as education, water supply and sanitation (log)/OECD.	2.012	0.622	0.113	3.077	424
Aid to Economic Infrastructure	Foreign aid directed at infrastructures like transport, communication and energy (log)/OECD.	0.812	1.201	-2.000	3.067	415
Aid to Productive sector	Foreign aid directed at the productive sector like agriculture, industry, mining, construction, trade and tourism(log)/OECD.	1.017	0.830	-1.699	2.741	424
Aid to Multi Sector	Foreign aid directed at other sectorial development like rural development (log)/OECD.	1.023	0.682	-1.699	2.541	424
Programme Assistance	Foreign aid directed towards program related assistance like food aid, disaster and war (log)/OECD.	1.116	0.924	-2.000	3.103	350
Action on debt	Aid directed towards debt relief (log)/OECD.	0.535	1.310	-2.000	4.045	321
Humanitarian Assistance	Aid allocated for Humanitarian Assistance (log)/OECD	0.894	1.004	-2.000	3.038	400

S.D: Standard Deviation. Min: Minimum. Max: Maximum. Obs: Observations. Log: logarithm. OECD: Organisation for Economic Co-operation & Development. UNDP: United Nations Development Program. WDI: World Bank Development Indicators.

The correlation analysis in Table 2 below enables us to mitigate multicollinearity and overparameterization issues apparent in the first-four variables, notably aid to: social infrastructure, economic infrastructure, production sector and multi-sector.

Table 2: Correlation matrix

SocioInfra	EcoInfra	ProdSec	MultiSec	Prog. Assis	Debt Action	Humani	IHDI	
1.000	0.756	0.760	0.784	0.284	0.111	0.419	-0.184	SocioInfra
	1.000	0.675	0.693	0.203	0.155	0.150	0.029	EcoInfra
		1.000	0.733	0.304	0.112	0.262	-0.139	ProdSec
			1.000	0.297	0.067	0.349	-0.189	MultiSec
				1.000	-0.022	0.351	-0.359	Prog. Assis
					1.000	0.006	-0.007	Debt Action
						1.000	-0.553	Humani
							1.000	IHDI

SocioInfra: Aid to Social Infrastructure & Services. EcoInfra: Aid to Economic Infrastructure and Services. ProdSec: Aid to Production Services. MultiSec: Aid to Multi Sector Development. Prog. Assis: Programme Assistance. Debt Action: Aid for debt relief. Humani: Aid for Humanitarian Assistance. IHDI: Inequality adjusted Human Development Index.

2.2 Methodology

Consistent with the motivation, we employ three estimation techniques: panel OLS, panel Fixed-effects (FE) and Dynamic System GMM. While the first-two independently entail both contemporary and non-contemporary specifications, the third is both contemporary and non-contemporary. OLS and FE are Heteroscedasticity & Autocorrelation Consistent (HAC) in standard errors. The choice of a FE or random-effect (RE) specification is contingent on the outcome of the Hausman test for endogeneity.

The GMM estimation consists of employing the Arellano & Bover (1995) technique. Instead of using differencing in the instrumentation process, we prefer forward orthogonal deviations. This specification is more efficient in the presence of cross-sectional dependence to avoid estimated coefficients being biased (Baltagi, 2008). As shown by Love & Zicchino (2006), the employment of forward orthogonal deviations controls for specific-effects arising from cross-sectional dependence. In this light, one period lags in the regressors are appropriate since they are not correlated with the transformed error term. Moreover, the adoption of one lag is also in accordance with the baseline OLS and FE non-contemporary specifications.

The modelling is in line with Roodman (2009ab) and specifications are *two-step* or heteroscedasticity-consistent, because *one-step* specifications assume homoscedasticity. The

validity of the models is further checked by ensuring that the results satisfy diagnostics of post-estimation. These include: restriction of identification or mitigation of instrument proliferation (by verifying that the number of cross-sections is higher than the number of instruments); the Sargan test for over-identification, the Arellano & Bond (1991) second-order serial correlation test and the difference-in-Hansen test for instrument exogeneity. For brevity, we do not present the equations but they can be provided upon request.

3. Empirical Results

Table 3 presents contemporary and non-contemporary results. Panel A shows OLS while Panel B reveals FE estimations. The specifications are articulated to control for the multicollinearity issues identified in Table 2. Only FE estimations are relevant to Panel B because the null hypotheses of the Hausman test for endogeneity are rejected, confirming the presence of endogeneity.

The following findings are established in Panel A. First, *aid for program* and *humanitarian assistances* affect the IHDI negatively. Second, there is no apparent impact from *action on debts*. Third, the effects of the dynamics with a high degree of substitution are consistently positive across specifications. Fourth, from a broad perspective, magnitudes of effects from non-contemporary specifications are slightly higher.

The following are noticeable with the FE estimations in Panel B. First, the previously insignificant effects from *action on debt* are now negatively significant. Second, the previously negative effects of *program* and *humanitarian assistances* are no longer apparent. Third, but for *aid to Multi-sector development*, the other three highly correlated aid dynamics have significant positive effects as in Panel A.

Table 3: Contemporary and Non-contemporary OLS and Fixed-effects

Dependent variable: Inequality adjusted Human Development Index (IHDI)

Panel A: Baseline Contemporary and Non-contemporary effects (HAC SE OLS)

	Contemporary effects					Non-Contemporary effects			
Constant	0.410*** (0.000)	0.499*** (0.000)	0.495*** (0.000)	0.472*** (0.000)	Constant	0.399*** (0.000)	0.498*** (0.000)	0.498*** (0.000)	0.471*** (0.000)
Prog. Assistance	-0.034*** (0.003)	-0.037*** (0.000)	-0.033*** (0.004)	-0.030*** (0.004)	Prog. Assistance (-1)	-0.033*** (0.000)	-0.037*** (0.000)	-0.031*** (0.007)	-0.030*** (0.006)
Action on Debt	-0.0004 (0.954)	-0.002 (0.679)	0.0002 (0.971)	0.0003 (0.956)	Action on Debt (-1)	-0.001 (0.842)	-0.004 (0.537)	-0.0009 (0.899)	-0.0004 (0.955)
Hum. Assistance	-0.052*** (0.000)	-0.041*** (0.003)	-0.043*** (0.005)	-0.047*** (0.001)	Hum. Assistance (-1)	-0.054*** (0.000)	-0.042*** (0.003)	-0.044*** (0.007)	-0.048*** (0.001)
Social Infrastructure	0.062*** (0.003)	---	---	---	Social Infrastructure(-1)	0.069*** (0.000)	---	---	---
Econ. Infrastructure	---	0.037*** (0.000)	---	---	Econ. Infrastructure (-1)	---	0.043*** (0.000)	---	---
Productive Sector	---	---	0.031** (0.036)	---	Productive Sector(-1)	---	---	0.031** (0.039)	---
Multi Sector	---	---	---	0.050*** (0.003)	Multi Sector(-1)	---	---	---	0.054*** (0.004)
Adjusted R ²	0.308	0.376	0.271	0.290	Adjusted R ²	0.316	0.407	0.261	0.286
Fisher	27.22***	36.47***	22.926***	25.017***	Fisher	25.31***	37.06***	19.57***	22.08***
Countries	42	42	42	42	Countries	41	41	41	41
Observations	236	236	236	236	Observations	211	211	211	211

Panel B: Contemporary and Non-contemporary effects (HAC SE Panel Fixed-Effects)

	Contemporary effects					Non-Contemporary effects			
Constant	0.393*** (0.000)	0.433*** (0.000)	0.427*** (0.000)	0.431*** (0.000)	Constant	0.408*** (0.000)	0.443*** (0.000)	0.436*** (0.000)	0.441*** (0.000)
Prog. Assistance	0.001 (0.251)	0.002 (0.142)	0.002 (0.103)	0.002* (0.090)	Prog. Assistance (-1)	-0.0005 (0.733)	-0.0005 (0.721)	-0.00002 (0.988)	0.0001 (0.932)
Action on Debt	-0.007*** (0.000)	-0.008*** (0.000)	-0.007*** (0.000)	-0.008*** (0.000)	Action on Debt (-1)	-0.006*** (0.000)	-0.006*** (0.000)	-0.006*** (0.000)	-0.006*** (0.000)
Hum. Assistance	0.001 (0.551)	0.002 (0.421)	0.002 (0.354)	0.001 (0.558)	Hum. Assistance (-1)	-0.0009 (0.704)	0.0001 (0.957)	0.0009 (0.735)	-0.0004 (0.879)
Social Infrastructure	0.020*** (0.000)	---	---	---	Social Infrastructure(-1)	0.019*** (0.000)	---	---	---
Econ. Infrastructure	---	0.003*** (0.002)	---	---	Econ. Infrastructure (-1)	---	0.005*** (0.000)	---	---
Productive Sector	---	---	0.007* (0.068)	---	Productive Sector(-1)	---	---	0.009** (0.021)	---
Multi Sector	---	---	---	0.004 (0.148)	Multi Sector(-1)	---	---	---	0.006 (0.104)
Hausman	39.984***	66.307***	37.034***	44.23***	Hausman	29.692***	60.04***	26.31***	33.33***
Within R ²	0.341	0.326	0.331	0.312	Within R ²	0.264	0.288	0.281	0.246
LSDV R ²	0.983	0.983	0.983	0.983	LSDV R ²	0.986	0.987	0.986	0.986
Fisher (LSDV)	257.11***	251.38***	253.45***	246.14***	Fisher	278.68***	288.02***	285.23***	271.86***
Countries	42	42	42	42	Countries	41	41	41	41
Observations	236	236	236	236	Observations	211	211	211	211

***, **, *: significance levels at 1%, 5% and 10% respectively. Econ: Economic. Prog: Programme. Hum: Humanitarian. LSDV: Least Squares Dummy Variable. HAC SE: Heteroscedasticity & Autocorrelation Consistent Standard Errors. OLS: Ordinary Least Squares.

Table 4 below presents the dynamic system GMM findings and comparative full specifications for further robustness purposes. The latter in Panel B is based on the relaxation of concerns about multicollinearity and overparameterization. Hence, all aid variables enter into the specifications. The findings which are based on contemporary and non-contemporary OLS and FE regressions confirm the results of Table 3.

Table 4: Dynamic GMM and comparative full specifications

	Panel A: Dynamic Panel System GMM					Panel B: Panel OLS and Fixed-Effects			
	Dynamic System GMM					Baseline HAC SE OLS		Fixed-Effects HAC SE	
	Contemporary and Non-contemporary					Cont	Non-cont	Cont	Non-cont
IHDI(-1)	0.986*** (0.000)	0.992*** (0.000)	0.989*** (0.000)	0.993*** (0.000)	0.970*** (0.000)	---	---	---	---
Constant	0.004 (0.400)	0.008 (0.283)	0.006 (0.360)	0.009 (0.180)	0.002 (0.605)	0.485*** (0.000)	0.473*** (0.000)	0.391*** (0.000)	0.408*** (0.000)
Prog. Assistance	0.0008* (0.058)	0.0005 (0.244)	0.0009 (0.100)	0.0006 (0.103)	0.001*** (0.000)	-0.036*** (0.000)	-0.035*** (0.000)	0.001 (0.365)	-0.001 (0.362)
Action on Debt	0.0007* (0.073)	0.0004 (0.323)	0.0008** (0.041)	0.0004 (0.343)	0.001*** (0.004)	-0.002 (0.690)	-0.003 (0.565)	-0.007*** (0.000)	-0.005*** (0.000)
Hum. Assistance	-0.001 (0.210)	-0.001 (0.222)	-0.001 (0.306)	-0.001 (0.103)	-0.002** (0.019)	-0.043*** (0.001)	-0.045*** (0.000)	0.003 (0.305)	0.0005 (0.836)
Social Infrastructure	0.002 (0.195)	---	---	---	0.006*** (0.000)	0.004 (0.862)	0.015 (0.520)	0.391*** (0.000)	0.012** (0.033)
Econ. Infrastructure	---	0.008 (0.301)	---	---	-0.0001 (0.805)	0.036*** (0.001)	0.043*** (0.000)	0.016*** (0.000)	0.004*** (0.002)
Productive Sector	---	---	0.002*** (0.008)	---	0.0003 (0.686)	-0.013 (0.373)	-0.022 (0.167)	0.002** (0.042)	0.006* (0.098)
Multi Sector	---	---	---	-0.0003 (0.757)	0.001** (0.040)	0.018 (0.356)	0.016 (0.446)	0.005 (0.117)	0.001 (0.678)
AR(1)	(0.117)	(0.114)	(0.096)*	(0.119)	(0.122)	---	---	---	---
AR(2)	(0.784)	(0.516)	(0.569)	(0.918)	(0.574)	---	---	---	---
Sargan OIR	(0.232)	(0.143)	(0.098)*	(0.243)	(0.116)	---	---	---	---
Hansen OIR	(0.441)	(0.497)	(0.279)	(0.364)	(0.639)	---	---	---	---
DHT for instruments									
(a) Instruments in levels									
H excluding group	(0.650)	(0.688)	(0.587)	(0.707)	(0.470)	---	---	---	---
Dif(null, H=exogenous)	(0.303)	(0.341)	(0.180)	(0.214)	(0.641)	---	---	---	---
(b) IV (years, eq (diff))									
H excluding group	(0.311)	(0.619)	(0.368)	(0.794)	(0.500)	---	---	---	---
Dif(null, H=exogenous)	(0.565)	(0.317)	(0.249)	(0.114)	(0.708)	---	---	---	---
Hausman	---	---	---	---	---	---	---	78.01***	68.23***
Adjusted R ²	---	---	---	---	---	0.374	0.408	---	---
Within R ²	---	---	---	---	---	---	---	0.370	0.337
LSDV R ²	---	---	---	---	---	---	---	0.984	0.987
Fisher (LSDV)	---	---	---	---	---	---	---	248.42***	284.69***
Fisher	1835***	1611***	2033***	2312***	11324***	21.083***	21.718***	---	---
Instruments	25	25	25	25	37	---	---	---	---
Countries	38	38	38	38	38	42	41	42	41
Observations	187	187	187	187	187	236	211	236	211

*** **, *: significance levels at 1%, 5% and 10% respectively. Econ: Economic. Prog: Programme. Hum: Humanitarian. DHT: Difference in Hansen Test for Exogeneity of Instruments' Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients, Hausman test and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan OIR test. LSDV: Least Squares Dummy Variable. Cont: Contemporary. Non-cont: Non-contemporary. HAC SE: Heteroscedasticity & Autocorrelation Consistent Standard Errors. OLS: Ordinary Least Squares.

As for Panel A, while the first-four specifications control for multicollinearity, the fifth specification relaxes the assumption. First, in relation to previous findings/modelling, while the negative sign of the *humanitarian assistance* variable remains unchanged, the effects of *programme assistance* and *action on debt* are now positive. The reason for this difference could be traceable to the drop in cross-sections from 42(41) to 38. This drop is accompanied by a decrease in degrees of freedom. Another possible explanation could be the

result of controlling for time-effects. Second, the effect of the aid dynamics with some high degree of substitution are positive, but for the impact of *economic infrastructure*.

The post-estimation tests confirm the validity of the instruments and absence of autocorrelation. Accordingly, the null hypotheses of the difference-in-Hansen test for instrument exogeneity and Arellano & Bond (1991) autocorrelation test are not rejected.

In cross-examining the OLS, FE and GMM results, only the effects of *program assistance* and *action on debt* are ambiguous. Hence, in the concluding implications that follow, meant to clarify the questionable economics of foreign aid for inclusive development, we urge the reader to consider the expositional/cautious character of the discussions related to the ambiguous results (of *program assistance* and *action on debt*).

4. Concluding implications

The use of foreign aid as a policy instrument to promote development in recipient countries has been object of a lot of debate (Gibson et al., 2014; Arvin & Barillas, 2002; Arvin et al., 2002; Balde, 2011)⁵. We resist the itch of engaging the debate over whether foreign aid is generally good or bad. Such engagement would be irrelevant on two principal counts. First, development assistance is like a policy, whose outcome depends on its implementation. Second, while Donors may have some strategic interests, recipients also have their fair share of blame for the outcome of allocated funds.

The following findings have been established. First, the impacts of aid dynamics with high degrees of substitution are positive. These include, aid for: social infrastructure, economic infrastructure, the productive sector and the multi-sector. Second, the effect of humanitarian assistance is consistently negative across specifications and models. Third, the

⁵ Inter alia: the interested can consider: (1) Efobi et al. (2014) versus (vs) Asongu (2012) & Okada & Samreth (2012); (2) Eubank (2012) vs Asongu (2014b) and; (3) Kangoye (2013) vs Asongu (2014c).

effects of programme assistance and action on debts are ambiguous because they become positive with the GMM technique.

Given the substantial reliance of the African continent on development assistance, the findings reflect the narrative of a general tendency in declining poverty relative to the rest of the world (Fosu, 2015; Young, 2012). While it is not our intention to claim that ‘the relative decline in poverty’ and ‘Africa being on time for certain Millennium Development Poverty targets’ (Pinkivskiy & Sala-i-Martin, 2014) are essentially due to development assistance, it is worthwhile noting that multilateral development agencies like the African Development Bank (AfDB) have had a strategic focus on infrastructural development in the continent. Hence, given the positive inclusive human development outcome from foreign aid allocated for infrastructural development in our analysis, we cannot overlook the substantial work of the AfDB.

The negative effect of humanitarian assistance implies that mechanisms by which such funds are channelled may be reconsidered. This is consistent with the underlying study motivating this clarification: *“Though the stated intents or purposes of aid are socio-economic, the actual impact from the findings negates this. It is a momentous epoque to solve the second tragedy of foreign aid; it is high time economists and policy makers start rethinking the models and theories on which foreign aid is based. In the meantime, it is up to people who care about the poor to hold aid agencies accountable for piecemeal results”* (Asongu, 2014a, p. 455).

In light of the above, we provide some recommendations for a rethinking of theories and models on which development assistance is based. Drawing on Piketty’s celebrated literature that has substantially debunked the Kuznets’ conjectures to which foreign aid policies have been aligned, we suggest that developed countries should oriented developing nations towards industrialisation by focusing more on inequality and less on economic

growth. This is broadly consistent with an evolving narrative on inequality in the continent (Elu, 2013; Mthuli et al., 2014; Brada & Bah, 2014; Asongu et al., 2014; Anyanwu, 2011, 2014)⁶.

We do not resist the itch of providing some discussion on the ambiguous results from *action on debt*. According to Boyce & Ndikumana (2011), such action is motivated by at least three reasons: past debts have not benefitted the poor; borrowing arrangements were without popular consent and historical evidence shows ‘creditor awareness’ of recipients’ insolvency. Hence, a priori, the results are expected to positively impact human development because debt cancellation/reduction reflects positive macroeconomic income/fiscal externalities that should be reinvested into domestic economies to enhance human development. The ambiguity in results is broadly consistent with Asongu et al. (2014) who have investigated the Azzimonti et al. (2014) conclusions that globalisation-driven debts increase income-inequality. Their findings which are based on the same periodicity and sample (as in this study) show that the effect on inclusive human development depends on whether the debts are interactive with or endogenous to globalisation.

Overall, while the findings are broadly consistent with Asiedu (2014), Gyimah-Brempong & Racine (2014) and Kargbo & Sen (2014), they also raise some questions on previous celebrated foreign aid literatures. For instance, humanitarian assistance which survives salient criticisms from Moyo’s Dead Aid has been found to have a negative effect on

⁶ Two issues are worth noting here. First, Africa’s declining poverty is relative to the periodicity under consideration. For instance, 1980-2010 and 1995-2010 produce different tendencies relative to the rest of the world (Fosu, 2015). Second, declining poverty is not equal to declining inequality because the latter is critical in the growth effects on the former. The interested reader can refer to an extensive literature by Fosu (2008, 2009, 2010abc, 2011). “*The study finds that the responsiveness of poverty to income is a decreasing function of inequality*” (Fosu, 2010c, p. 818); “*The responsiveness of poverty to income is a decreasing function of inequality, and the inequality elasticity of poverty is actually larger than the income elasticity of poverty*” (Fosu, 2010a, p. 1432); and “*In general, high initial levels of inequality limit the effectiveness of growth in reducing poverty while growing inequality increases poverty directly for a given level of growth*” (Fosu, 2011, p. 11).

inclusive human development. Moreover, the Fofack (2014) conjecture of self-reliance as means to African development is not consistent with the findings.

As a technical policy implication, like in Efobi et al. (2014), distinguishing types of foreign aid is critical to advancing empirical conclusions on the aid-development nexus. This is essentially because previous findings using the same dependent variable that have grouped aid as a single indicator have shown a negative effect (Asongu, 2014a), a tendency that is consistent across conditional distributions of the dependent variable (Asongu, 2014d).

When the findings are considered in the light of deep policy challenges of our time, the principal social implication is that foreign aid can be instrumental in inclusive capitalism. It could be used to avoid/mitigate setbacks of the Kuznets theory and help developing countries embrace globalisation/industrialisation in light of Piketty. Foreign aid can be instrumental in inclusive human development if above measures are considered, inter alia: in stimulating Knowledge economy (KE) which has been established to reduce inequality (Lustig, 2011) and emphasising on gender equality. These are clearly avenues of future research that should go a long way in clarifying provocative titles like '*foreign aid follies*' (Rogoff, 2014) or sceptical conclusions from more substantive surveys of 40 years of foreign aid literature (Doucouliagos & Paldam, 2008, 2009).

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