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Globalization and Africa: implications for human development

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Globalization and Africa: implications for human development

Abstract

Purpose – The purpose of this paper is to assess the effects of trade and financial globalization on human development in 52 African countries using updated data(1996-2010) and a new indicator of human development(adjusted for inequality).

Design/methodology/approach – The estimation technique used is a Two-Stage-Least Squares Instrumental Variable methodology. Instruments include: income-levels, legal-origins and religious-dominations. The first-step consists of justifying the choice of the estimation technique with a Hausman-test for endogeneity. In the second-step, we verify that the instrumental variables are exogenous to the endogenous components of explaining variables(globalization dynamic channels) conditional on other covariates(control variables). In the third-step, the strength and validity of the instruments are assessed with the Cragg-Donald and Sargan overidentifying restrictions tests respectively. Robustness checks are ensured by: (1) use of alternative globalization indicators; (2) endogeneity based estimation ; and (3) adoption of two interchangeable sets of instruments.

Findings – Findings broadly indicate that while trade globalization improves human development(consistent with the neoliberal theory), financial globalization has the opposite effect(in line with the hegemony thesis).

Social implications – Capital accounts should be opened in tandem with financial and institutional development. The investment atmosphere needs improvement to curtail capital flight(about 39%). Other policy implications include: adoption of openness options in a selective and gradual manner, development of some industrial backbone for an import-substitution or export-led industry, emphasis on regional trade and building capacity, development of the agricultural sector with continuous government assistance, building of rural infrastructure, increasing adult literacy rate and developing human resources, fighting corruption and mitigating wastages in government expenditure.

Originality/value – These findings are based on very recent data. Usage of the inequality adjusted human development index first published in 2010, corrects past works of the bulk of criticisms inherent in the first index.

JEL Classification: F10; F30; I10; I30; O55

Keywords: Globalization; Human development; Africa

1. Introduction

Globalization has been recognized as the main force dominating the economic universe. It upholds to light-up the world with economic prosperity and seeks a victory of market over government and self-interest over altruism. No less imperative is the global commitment to continuing and accelerating the pace of human development, which signifies the culmination of the historical processes of cultural progress. The dilemma is that while globalization is a lusty, ineluctable historical process whose march can be stopped only by endangering the prosperity of peoples and nations, it also threatens to disfigure human development in the manner it is evolving. As a dynamic force for change through-out the world, it is expected to cause unprecedented surges in the wealth of nations by extending outwards the world production-possibility frontier and by redefining the world as a “Global Village”. Nay, it is also reviled as a process destined to cause social and economic disintegration as well as ecological decay. It is feared to be spurring on the race to the bottom by grabbing from the poor and giving to the rich, marginalizing nations already integrated in the world economy, decoupling them from scientific advancements carried-out in the developed world and widening the pre-existing disparities in the level of economic well-being within nations and between nations to a point where they have become socially, morally and economically unacceptable. Though not in substance, yet in form there are increasing fears that developed countries may increasingly use globalization to re-enact colonialism in another way. Thus, not surprisingly the public support for globalization has waned in both developed and developing countries, with a frantic search for a third-way out of the morally enervating regime of unvarnished capitalism. In the mean, there is a universal demand to recapture some of its attractive glow and lofty ambitions, that the superior claims of

globalization be given a “human face” by saddling the increasingly ungovernable world of trade and finance with a global civic ethic.

To this end, the present paper aims to assess the incidence of trade and financial globalization on human development in the African continent. The choice of Africa is most relevant giving the continent’s appalling statistics in development: human and economic. This investigation will therefore contribute to the literature in the following dimensions. (1) The use of very updated data(1996-2010) provides results with more focused policy implications. (2) The assessment is based on 52 of the current 54 countries in the continent, thus providing an in depth and general picture of the financial and trade trends of globalization in the continent. (3) While literature on the openness-human development nexus is based a Human Development Index(HDI) unadjusted for inequality, this paper employs the inequality adjusted HDI first published in the 2010 Human Development Report. Thus in substance this study uses a novel HDI that has integrated criticisms labeled on the index over the past two decades. The rest of the paper is organized in the following manner. Section 2 reviews existing literature. Data and methodology are presented and outlined in Section 3 respectively. Empirical analysis is covered by Section 4. We conclude with Section 5.

2. Liberalization, globalization and human development

2.1 Theoretical highlights

In line with Thai(2006), two theories prevail in the debate over how globalization affects human well-being: the neoliberal and the hegemonic schools.

The neoliberal school contends globalization is an omnipresent power of ‘creative destruction’ in that global trade, cross-border investment and technological innovation improve production efficiency and generate extraordinary prosperity despite replacement of old jobs and

fall in wages for unskilled workers. Globalization manages these potential threats by signaling to the latter group about the pay-offs from acquiring new skills. Rewards can spread over the masses *'if the labor market is responsive to changes in supply and demand'* (Grennes, 2003). Empirical studies have also documented that globalization is fashioned to spread industrialization to developing countries and hence reduce global income inequality (Firebaugh, 2004). Rodrik et al. (2004) find foreign trade closely tied to societal institutional building; which constitute a decisive factor in economic growth.

The second school conceives globalization as a new hegemonic project. According to Petras & Veltmeyer (2001), globalization demonstrates the creation of a new world order architecture by global powers (industrial countries, international financial institutions...etc), with prime objective of facilitating capitalist accumulation in an environment of unconstrained market transactions. Petras & Veltmeyer (2001, 24) predicts *'a world-wide crisis of living standards for labor'*: since the brunt of the capitalist globalization process has been borne by the working class as *'technological change and economic reconversion endemic to capitalist development has generated an enormous growing pool of surplus labor, an industrial reserve army...with incomes at or below the level of subsistence'*. Another strand of this anti-thesis is that, contemporary global systems on its neoliberal course have imposed a "flexible" mode of production that undermines the redistributive mechanisms that were constructed through Keynesian social democracy. As observed by Smart (2003) globalization features a 'market ethos' whose fervent pursuit of private interest operates without regard for persons (Thai, 2006). In confirming this assertion Scholte (2000) posits, an unequal allocation of benefits is generated that favors the already advantaged. Though this radical stance is not explicitly shared by Sirgy et

al.(2004), they do predict several negative effects in suggesting globalization has “double-bladed” outcomes.

2.2 Liberalization of capital and trade flows

The increasing trend towards liberalization denotes a gradual lifting of the tariff and non-tariff restrictions on the flow of goods, services, factors of production(capital and labor for the most part), and ideas so that these move freely across national borders and ideally as if no national borders existed. A positive movement towards this goal has been eased since 1948 by the General Agreement on Tariffs and Trade(GATT) and since 1995 by the World Trade Organization(WTO). Both have sought, although with no much success this far to facilitate “market-access” and promote “rule-based” trade in a multilateral and nondiscriminatory fashion. These efforts are because bilateralism and discrimination between nations severely limit the possibilities of mutually beneficial trade through “third-market” competition. The pre-war enthusiasm for multilateralism seems to have waned substantially. According to Bhawagti(1990), the proliferation of bilateral trade agreements and the regional trading blocs in the Cold War era have greatly weakened the multilateral trading system. There are definite signs that bilateral trade agreements will become the preferred mode of doing business with the developing countries(to extract better terms of trade than is possible with multilateral bargaining at the WTO where they have received a considerable leverage).

2.3 Impact of globalization on human development

The positive impact of globalization on human development could be discussed in the following strands. (1) Better education: since to harness the benefits of globalization, education and training become a priority(Lai, 2003). (2) Increased quality of life through product

availability: as in recent years countries that have opened their economies have experienced more poverty reduction(Dollar,2001). (3) Improvement in GDP: because the redistribution of resources increase overall economic output(Rabbanee et al.,2010). (4)Employment and income distribution: trade liberalization has a direct impact on the employment scenario and wage condition of a country(Rabbanee et al.,2010). (5) Improvement in the human development index and gender equality(Wood, 1991).

Globalization could also be an inhibitor of human development in the following dimensions. (1) Reduction in government revenue: developing countries incur substantial reduction in revenue from tariffs compared to developed countries(Rabbanee et al.,2010, p.4). (2) Negative impact on agriculture: since most developing countries are largely dependent on agriculture, but highly subsidized and mechanized agricultural produce from developed countries greatly hampers the domestic agricultural industry. (3) Downbeat effect on income distribution(Cornia,2001; Asongu, 2011a). (4) Trade related aspects of Intellectual Property Rights(IPR): IPR provisions of the WTO leads to the transfer of billions of dollars in royalties and licensing fees from developing to high income countries (Weisbrot & Baker, 2002). (5) Withdrawal of the quota which severely hampers domestic exports. (6) Food security and impact on peasants: with farmers facing a situation where the cost of agricultural inputs is much higher than the actual returns they get from their production. Moreover, developing countries are flooded with cheap and highly subsidized Western agricultural imports and their agrarian economy is slowly being thrown out of gear.

3.Data and methodology

3.1 Data

We assess a panel of 52 African countries with data from African Development Indicators(ADI) of the World Bank(WB). Details of summary statistics(Appendix 1), correlation analysis(Appendix 2), variable definitions(Appendix 3) and presentation of countries(Appendix 4) are presented in the appendices. In a bid for more updated policy implications, the dataset spans from 1996 to 2010. The dependent variable is the inequality adjusted HDI while independent variables include: a proxy for economic globalization(trade) and two indicators of financial globalization(foreign direct investment and private capital flows). In the regressions we control for democracy, public investment, population growth and financial efficiency. The choice of control variables is also constrained by the degrees of freedom necessary for overidentifying restrictions(OIR) test at second-stage regressions(more than two control variables will result in exact or under-identification; meaning instruments are either equal-to or less-than the number of endogenous explaining variables respectively). These instruments include: income-levels, religious-dominations and legal-origins. They have been largely documented in the literature on economic development (La Porta et al., 1997; Beck et al., 2003; Asongu, 2011bc).

3.2 Methodology

3.2.1 Endogeneity

While openness has a bearing on human development the reverse effect cannot be ruled-out, as development may influence a country's policies towards globalization. We are thus confronted here with an issue of endogeneity owing to reverse-causality and omitted variables, since the openness indicators are correlated with the error term in the equation of interest. To

address this issue we shall investigate the presence of endogeneity with the Hausman-test and should the results match our concerns, we employ an estimation technique that takes account of the endogeneity issue.

3.2.2 Estimation technique

Given the concern for endogeneity, we borrow from Beck et al.(2003) and recently African finance literature(Asongu, 2011def) in adopting a Two-Stage-Least-Squares(TSLS) estimation approach. Instrumental Variable(IV) estimations address the puzzle of endogeneity and hence avoid the inconsistency of estimated coefficients by Ordinary Least Squares (OLS) when the exogenous variables are correlated with the error term in the main equation. The TSLS-IV estimation method adopted by this study will entail the following steps.

First-stage regression:

$$Glob_{it} = \gamma_0 + \gamma_1(\text{legalorigin})_{it} + \gamma_2(\text{religion})_{it} + \gamma_3(\text{incomelevel})_{it} + \alpha_i X_{it} + v \quad (1)$$

Second-stage regression:

$$HD_{it} = \gamma_0 + \gamma_1(Glob)_{it} + \beta_i X_{it} + \mu \quad (2)$$

The independent control variables are represented by X in the two equations. In Eq.(1) and Eq.(2), v and u respectively denote the disturbance terms. Legal-origins, dominant-religions and income-levels represent the instruments. Globalization and human development are denoted by ‘*Glob*’ and ‘*HD*’ respectively.

We lay emphasis on the following in the analysis: (1) justify the choice of a TSLS over an OLS estimation technique with the Hausman-test for endogeneity; (2) show the instruments are exogenous to the endogenous components of explaining variables (openness channels), conditional on other covariates (control variables); (3) ensure the instruments are valid and not

correlated with the error-term in the main equation with an Over-identifying Restrictions (OIR) test.

3.2.3 Robustness checks

For robustness purposes, the empirical analysis: (1) uses alternative indicators of financial liberalization; (2) employs two distinct interchangeable sets of instruments; (3) accounts for endogeneity; (4) models under both restricted and unrestricted hypotheses.

4. Empirical analysis

This section addresses the ability of the exogenous components of globalization dynamics to account for differences in human development; the ability of the instruments to explain variations in the endogenous components of globalization dynamics and the possibility of the instruments to account for human development beyond globalization dynamic channels. To make these investigations, we use the panel TSLS-IV estimation method with legal-origins, income-levels, and religious-dominations as instrumental variables.

4.1 Globalization and instruments

Table 1 below assesses the validity of the instruments in explaining cross-country differences in globalization dynamics. Clearly, it could be observed that distinguishing African countries by legal-origins, income levels and religious-dominations help explain cross-country differences in globalization dynamics. Based on the Fisher-test, the instruments taken together enter significantly in all regressions at the 1% significance level. Broadly the following findings could be established. (1) Christian-dominant countries are more open to external trade and finance than their Islam-oriented counterparts. (2) English common-law countries are more responsive to economic and financial liberalization than French civil-law countries. Given the

validity of joint significance in estimated coefficients, we proceed with the second-stage of the TSLS approach.

Table 1: First-stage regressions

	Financial Globalization				Trade Globalization		
	Foreign Direct Investment		Private Capital Flows		Trade		
	1 st Set	2 nd Set	1 st Set	2 nd Set	1 st Set	2 nd Set	
Instruments	Constant	2.441*** (3.185)	6.419*** (5.422)	0.738 (0.414)	4.813*** (3.125)	52.683*** (9.530)	98.710*** (20.32)
	English	1.409* (1.810)	---	1.042 (1.183)	---	7.266** (2.399)	---
	French	---	-1.366* (-1.785)	---	-1.042 (-1.183)	---	-7.266** (-2.399)
	Christianity	1.592** (2.023)	---	1.578* (1.735)	---	15.502*** (5.206)	---
	Islam	---	-1.812** (-2.318)	---	-1.578* (-1.735)	---	-15.502*** (-5.206)
	L.Income	---	-1.510 (-1.701)	---	-1.454 (-1.415)	---	-23.258*** (-6.570)
	M. Income	-0.372 (-0.344)	---	-1.373 (-1.072)	---	24.561*** (6.266)	---
	LMIncome	1.368 (1.098)	---	2.828** (1.997)	---	-1.303 (-0.288)	---
	UMIncome	---	-0.878 (-0.776)	---	-2.828** (-1.997)	---	1.303 (0.288)
	Control Variables	Democracy	-0.133 (-1.329)	---	-0.197* (-1.782)	-0.197* (-1.782)	-0.904** (-2.477)
Pub. Invnt.		---	---	0.202** (2.057)	0.202** (2.057)	2.001*** (6.442)	2.001*** (6.442)
Popg		---	0.064 (0.150)	0.076 (0.158)	0.076 (0.158)	-5.313*** (-3.350)	-5.313*** (-3.350)
Adjusted R ²	0.011	0.015	0.020	0.020	0.235	0.235	
Fisher Statistics	2.268**	2.708**	2.392**	2.392**	27.787***	27.787***	
Observations	528	557	465	465	611	611	

L: Low. LM: Lower Middle. UM: Upper Middle. Invnt: Investment. Pop: population. *, **, ***: significance levels of 10%, 5% and 1% respectively. Student statistics ratios are in brackets. 1st Set: First Set of Instruments. 2nd Set: Second Set of Instruments.

4.2 Globalization and human development

Table 2 investigates two main issues: (1) the ability of openness channels to account for human development and (2) the possibility of the instrumental variables explaining human development beyond openness channels. Whereas we address the first issue by investigating the significance of estimated coefficients, the second is assessed by the Cragg-Donald and Sargan-OIR tests for instrument strength and validity respectively. The null hypothesis of the Sargan test

is the view that the instruments account for human development only through openness channels. Thus a rejection of the null hypothesis is the rejection of the view that the instruments explain human development through other mechanisms than openness channels. The null hypothesis of the Cragg-Donald test is the view that the instruments are weak; thus its rejection points to the strength of the instruments at first-stage regressions. The Hausman-test for endogeneity precedes the TSLS-IV regressions and thus justifies the choice of the estimation technique. The null hypothesis of this test is the stance that OLS estimates are efficient and consistent. Thus a rejection of the null hypothesis points to the issue of reverse causality (endogeneity) we have elucidated earlier (see Section 3.2.1) and hence lends credit to the TSLS-IV estimation approach. Else, we model by OLS. For robustness purposes, results are replicated using an alternative set of instrumental variables, as depicted in the second and third to the last lines of Table 2. Looking at the unrestricted regressions in Table 2, the null hypothesis of the Hausman-test is rejected in all the regressions; confirming the presence of endogeneity and hence the choice of the TSLS-IV approach.

With regard to the first concern which is addressed by the significance of estimated coefficients, it can be firmly established that while financial openness significantly decreases human development, trade openness suggests the contrary in Africa. The positive effect of trade on human development could be explained by the cheap imports in basic human needs flooding African markets from China and beyond. The negative effect of financial openness confirms the relative lack of a financial-service comparative advantage in the African financial industry. Another possible cause for this negative effect is the high rate of capital flight from Africa owing to corruption and averse to risky investments. In a closed economy, savings depend not only on the distance from subsistence but also on the incentive to save depending on the rate of return to

saving and investment. In an open economy, investment is not only a function of domestic saving but also depends on the rate of return to investment. As documented by Collier et al. (2001) in the capital flight literature, an estimated 39% of African capital stock is held outside the continent. Domestic investors compare the returns to domestic and foreign investments while private investors and bank lenders will invest within the African economy only if returns are attractive enough. From a broad perspective, the results of financial openness are consistent with empirical investment-inequality literature (Pan-Long, 1995; Basu & Guariglia, 2007; Kai & Hamori, 2009; Asongu, 2011a) and theoretical postulations (Greenwood & Jovanovic, 1990). All these have pointed to the disequalizing redistributive income effect of foreign investment, which in contextual terms depict decrease in inequality adjusted human development.

As concerns the second-issue, rejection of the null hypothesis of the OIR test in all regressions implies that the instruments explain human development through some other mechanisms beside openness channels. Thus the instruments are not valid as they are correlated with the error term in the main equation; the instruments suffer from endogeneity. We also report the Cragg-Donald test statistics for the strength of the instruments at the first stage of the TSLS. The null hypothesis for weak instrument is not rejected in all regressions, since relative bias of TSLS over OLS exceeds 20% (confirming the weakness of the instruments). The control variable is significant with the right sign: consistent with the African law-finance literature (Asongu, 2011g). The analysis in Table 2 is replicated with the second-set of instruments to confirm robustness of results. Given the invalidity of the instruments, we relax the strict exogenous growth context and assume the existence of constant (autonomous) human development. By unrestricted regressions there is an implicit assumption that even economies in autarky do exhibit a fixed threshold of human development.

Table 2: Second-stage regressions(Restricted)

		Human Development			
		Instrumented with First-Set		Instrumented with Second-Set	
Financial Globalization	Foreign Investment	-1.069** (-2.306)	---	-1.069** (-2.306)	---
	Private Capital Flows	---	-0.875** (-2.752)	---	-0.875** (-2.752)
Trade Globalization	Trade	0.155*** (3.866)	0.143*** (4.197)	0.155*** (3.866)	0.143*** (4.197)
	Banking Efficiency	-8.631*** (-3.024)	-8.420*** (-3.070)	-8.631*** (-3.024)	-8.420*** (-3.070)
Hausman-test		54.398***	68.760***	54.398***	68.760***
OIR-Sargan test		6.309**	5.462*	6.309**	5.462*
P-value		[0.042]	[0.065]	[0.042]	[0.065]
Cragg-Donald		4.809	8.211	4.809	8.211
Adjusted R ²		0.006	0.012	0.006	0.012
Fisher Statistics		8.359***	9.051***	8.359***	9.051***
Observations		385	385	385	385
First-Set of Instruments		Constant; English ; Christianity; Middle Income; Lower Middle Income			
Second-Set of Instruments		Constant; French; Islam; Lower Income; Upper Middle Income			

*,**,***: significance levels of 10%, 5% and 1% respectively. (): z-statistics . []: p-values corresponding to OIR-Sargan test. OIR: Overidentifying Restrictions test. For the Cragg-Donald statistics the relative bias is probably more than 20% since critical value for TSLS bias over OLS is 9.53.

Table 3 below presents unrestricted TSLS results. First and foremost, the results of the Hausman-test confirm the choice of the estimation approach. Results of the Cragg-Donald and Sargan-OIR tests also confirm the strength and validity of the instruments respectively. While the null hypothesis of weak instrument is rejected(the relative bias is probably less than 5% since the critical value for TSLS bias over OLS is 4.95), the alternative hypothesis of the Sargan-OIR test is rejected. Broadly, but for the validity of the instruments findings based on unrestricted regressions confirm those in Table 2 (even after they are replicated with an alternative set of instruments). In substance both the endogenous regressors and control variables are significant with the right signs.

Table 3: Second-stage regressions(Unrestricted)

		Human Development			
		Instrumented with First-Set		Instrumented with Second-Set	
	Constant	12.529* (1.813)	12.009* (1.838)	12.529* (1.813)	12.009* (1.838)
Financial Globalization	Foreign Investment	-1.420** (-2.519)	---	-1.420** (-2.519)	---
	Private Capital Flows	---	-1.098*** (-2.752)	---	-1.098*** (-2.752)
Trade Globalization	Trade	0.133*** (2.788)	0.114*** (2.765)	0.133*** (2.788)	0.114*** (2.765)
	Banking Efficiency	-21.567*** (-2.749)	-20.622*** (-2.820)	-21.567*** (-2.749)	-20.622*** (-2.820)
Hausman-test		64.355***	68.760***	64.355***	68.760***
OIR-Sargan test		1.548	0.998	1.548	0.998
P-value		[0.213]	[0.317]	[0.213]	[0.317]
Cragg-Donald		4.959	7.323	4.959	7.323
Adjusted R ²		0.003	0.008	0.003	0.008
Fisher Statistics		4.646***	5.275***	4.646***	5.275***
Observations		385	385	385	385
First-Set of Instruments		Constant; English ; Christianity; Middle Income; Lower Middle Income			
Second-Set of Instruments		Constant; French; Islam; Lower Income; Upper Middle Income			

***,**: significance levels of 10%, 5% and 1% respectively. (): z-statistics . []: p-values corresponding to OIR-Sargan test. OIR: Overidentifying Restrictions test. For the Cragg-Donald statistics the relative bias is probably less than 5% since critical value for TSLS bias over OLS is 4.95.

4.3 Policy recommendations

While globalization paves the way to human development, it also opens up threatening situations which hinder human development. Developed countries still have protectionist measures in sectors like agriculture, steel, textile ...etc. Such a backdrop begs the question of what strategies developing countries need to adopt. The following are some recommendations for African countries under a global economic structure. We first present policy recommendations directly resulting from the outcome of the empirical framework(contextual) before broad options extracted from the literature(Section 4.3.2).

4.3.1 Contextual policy implications

(1) Adopting globalization policies in a selective and gradual manner. Our findings demonstrate the need for African countries to open their capital accounts in a gradual manner.

Complete openness to foreign direct investment or private capital flows will seriously hamper human development. These recommendations have been largely documented in the African openness-development literature(Dornbusch, 1992; Asongu, 2010; Asongu, 2011h). Policy should target foreign direct investment openness in sectors where the country doesn't have expertise as well as in technology intensive areas necessary in knowledge building.

(2) Developing a backbone for an import-substitution or export-led industry. This is essential for developing countries, given the negative consequences of openness on the domestic industry. Most African countries are agro-based with over 12% of the world population in sub-Saharan Africa producing only 1% of global output(Easterly, 2005). Thus industrial backbone building will help in strategic self-dependence to a certain degree. The solid industrial base should be accompanied with an export-led strategy that optimizes existing labor-intensive skills and resources in the countries. This will ensure higher employment rates and per capita incomes, which will then create favorable conditions for capital intensive and technology oriented import substitution strategies.

(3) Emphasizing on regional trade and capacity building. Though developed countries are the main proponents of globalization, they are not following the lofty goals of the Free-trade concept they preach. The USA and continental Europe, protagonists of globalization are merely practicing Preferential-trade. The North American Free Trade Agreement(NAFTA) and European Community(EC) are two bright examples of such a preferential treatment for developed countries. Since developing countries are still not economically sound to open their markets fully to the world, they should also gear towards preferential trade agreements. Building trade blocks will increase their bargaining power and influence in World Trade

Organization(WTO) decision making bodies. Such efforts will ultimately have a positive impact on human resource development in member states.

4.3.2 Other policy implications

Indirect recommendations resulting from the outcome of this work could be classified into the following strands.

(1) Development of agricultural sector with continuous government assistance. This will make the country less vulnerable to speculations and international price fluctuations. Policy towards the cultivation of agricultural land for biofuels should not be at the price of inflationary pressures on basic consumer agricultural commodities. Due to high population pressure, farmer miserable income and low investment in land, labour productivity in African countries is comparatively marginal. To mitigate this vulnerable situation, government assistance to the agricultural sector should be policy. Subsidizing agriculture is mainstream in the USA and the EU.

(2) Improvement of rural infrastructure. Agricultural growth should move in tandem with social and physical development. Unfortunately, rural areas in Africa have very few roads and means of preserving(transporting) produce for(to) markets in urban areas. Thus the agricultural development paradox has also been the outcome of weak infrastructure. East Africa has recently witnessed massive famine owing to droughts; development of irrigation facilities(in predominantly farming rural areas) by governments could attenuate this human misery in the future. A significant allocation of national budget for drought related casualties by governments is also required.

(3) Increasing adult literacy rate and developing human resources. Though African countries have made considerable strides in the direction to child education, adult literacy rate is

still low. Adult literacy would better human resources and hence improve productivity and overall economic performance. Educational standards should also be upgraded in order to deter the growing phenomenon of “brain-drain”.

(4) Fighting corruption and wastages in government expenditures. It is a widely accepted phenomenon that corruption remains a substantial infringement to economic growth and human development. Corruption cripples and institutionalized corruption seriously deteriorates the economy. If corruption and wastages are managed properly, more government budget will be optimally allocated to economic and human developments.

5. Conclusion

Globalization has been recognized as the main force dominating the economic universe and its public support has waned in both developed and developing countries, with a frantic search for a third-way out of the morally enervating regime of unvarnished capitalism. In the mean, there is a universal demand to recapture some of its attractive glow and lofty ambitions; that the superior claims of globalization be given a “human face” by saddling the increasingly ungovernable world of trade and finance with a global civic ethic. To this end, this paper has assessed the incidence of trade and financial globalization on human development in Africa. The choice of the African continent is most relevant giving the continent’s appalling statistics in development: human and economic. The investigation has contributed to the literature in the following dimensions. (1) The use of very updated data(1996-2010) has provided results with more focused policy implications. (2) The assessment based on 52 of the current 54 countries in the continent, has also provided an in depth and general picture of the financial and trade globalization trends in the continent. (3) While past studies on the openness-human development nexus have used a Human Development Index(HDI) unadjusted for inequality, this paper has

employed the inequality adjusted HDI first published in the 2010 Human Development Report. Thus in substance this study has used a novel HDI that has integrated criticisms labeled on the index over the past two decades.

Findings broadly indicate that while trade globalization improves human development (consistent with the neoliberal theory), financial globalization has the opposite effect (in line with the hegemony thesis). Social implications and policy options include: opening-up of financial accounts in tandem with financial and institutional development, improvement of the investment atmosphere to curtail capital flight from the continent, adoption of openness policies in a selective and gradual manner, developing an industrial backbone for import-substitution or export-led industry, emphasizing on regional trade and building capacity, development of the agricultural sector with continuous government assistance, improvement of rural infrastructure, increasing adult literacy rate, developing human resources, combating of corruption and reducing wastages in government expenditure.

Appendices

Appendix 1: Summary Statistics

	Variables	Mean	S.D	Min.	Max.	Observations
Dependent Variable	Human Development Index	1.351	6.341	0.127	47.486	551
Independent Variables	Foreign Direct Investment	4.221	8.451	-8.629	145.20	557
	Private Capital Flows	4.051	8.788	-13.67	145.20	566
	Trade	78.352	39.923	17.859	275.23	705
Control Variables	Population growth	2.359	1.015	-1.081	10.043	780
	Bank Efficiency	0.700	0.341	0.133	2.304	692
	Democracy	2.307	4.089	-8.000	10.000	735
	Public Investment	7.489	4.535	0.000	39.984	641
Instrumental Variables	English Common-Law	0.384	0.486	0.000	1.000	780
	French Civil-Law	0.615	0.486	0.000	1.000	780
	Christianity	0.634	0.481	0.000	1.000	780
	Islam	0.365	0.481	0.000	1.000	780
	Low Income	0.576	0.494	0.000	1.000	780
	Middle Income	0.423	0.494	0.000	1.000	780
	Lower Middle Income	0.230	0.421	0.000	1.000	780
	Upper Middle Income	0.192	0.394	0.000	1.000	780

S.D: Standard Deviation. Min: Minimum. Max: Maximum.

Appendix 2: Correlation Analysis

Dev. HDI	Globalization Variables			Control Variables				Instrumental Variables								
	FDIgdg	PCFgdg	Trade	Pogp	BcBd	Demo	Pub.I	Eng.	Frch.	Chris	Islam	LI	MI	LMI	UMI	
1.000	-0.042	-0.021	-0.091	-0.014	0.091	0.131	-0.151	0.185	-0.185	0.101	-0.101	-0.080	0.080	-0.081	0.231	HDI
	1.000	0.963	0.452	-0.033	-0.161	-0.049	0.074	0.101	-0.101	0.111	-0.111	-0.072	0.072	0.041	0.044	FDIgdg
		1.000	0.425	-0.028	-0.174	-0.064	0.067	0.073	-0.073	0.108	-0.108	-0.043	0.043	0.043	-0.001	PCFgdg
			1.000	-0.255	-0.086	0.016	0.175	0.176	-0.176	0.181	-0.181	-0.350	0.350	0.137	0.294	Trade
				1.000	-0.068	-0.063	0.043	-0.107	0.107	0.008	-0.008	0.425	-0.425	-0.222	-0.296	Pogp
					1.000	0.068	-0.234	-0.118	0.118	-0.084	0.084	-0.078	0.078	0.102	-0.012	BcBd
						1.000	0.147	0.177	-0.177	0.163	-0.163	-0.034	0.034	-0.162	0.228	Demo
							1.000	0.147	-0.138	0.008	-0.008	-0.049	0.049	0.002	0.059	PubI
								1.000	-1.000	0.189	-0.189	-0.043	0.043	-0.057	0.115	Eng.
									1.000	-0.189	0.189	0.043	-0.043	0.057	-0.115	Frch.
										1.000	-1.000	-0.003	0.003	-0.153	0.167	Chris.
											1.000	0.003	-0.003	0.153	-0.167	Islam
												1.000	-1.000	-0.639	-0.569	LI
													1.000	0.639	0.569	MI
														1.000	-0.267	LMI
															1.000	UMI

Dev: Development. HDI: Human Development Index. FDIgdg: Foreign Direct Investment. PCF: Private Capital Flows. Pogp: Population growth. BcBd: Banking Efficiency. Demo: Democracy. PubI: Public Investment. Eng: English Common-Law. Frch: French Civil-Law. Chris: Christian Religion. LI: Low Income. MI: Middle Income. LMI: Lower Middle Income. UMI: Upper Middle Income.

Appendix 3: Variable Definitions

Variables	Signs	Variable Definitions	Sources
Human Development	HDI	Inequality Adjusted HDI	World Bank(WDI)
Foreign Direct Investment	FDI _{gdp}	Foreign Direct Investment(% of GDP)	World Bank(WDI)
Private Capital Flow	PCF _{gdp}	Total Private Capital Flows(% of GDP)	World Bank(WDI)
Trade(Openness)	Trade	Imports plus Exports in commodities(% of GDP)	World Bank(WDI)
Banking Efficiency	BcBd	Bank Credit on Bank Deposits	FSDS(WDI)
Population growth	Popg	Average annual population growth rate	World Bank(WDI)
Democracy	Demo	Level of Institutionalized Democracy	World Bank(WDI)
Public Investment	PubI	Gross Public Investment(% of GDP)	World Bank(WDI)

WDI: World Bank Development Indicators. FSDS: Financial Development and Structure Database.

Appendix 4: Presentation of Countries

Instruments	Instrument Category	Countries	Num.
Legal-origins	English Common-Law	Botswana, The Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mauritius, Namibia, Nigeria, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Uganda, Zambia, Tanzania, Zimbabwe.	20
	French Civil-Law	Algeria, Angola, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo Republic, Congo Democratic Republic, Djibouti, Egypt, Eritrea, Equatorial Guinea, Ivory Coast, Ethiopia, Gabon, Guinea, Guinea-Bissau, Libya, Madagascar, Mali, Mauritania, Morocco, Mozambique, Niger, Rwanda, Sao Tome & Principe, Senegal, Togo, Tunisia.	32
Religions	Christianity	Angola, Benin, Botswana, Burundi, Cameroon, Cape Verde, Central African Republic, Congo Republic, Congo Democratic Republic, Ivory Coast, Equatorial Guinea, Ethiopia, Eritrea, Gabon, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Sao Tome & Principe, South Africa, Swaziland, Togo, Uganda, Zambia, Tanzania, Zimbabwe.	33
	Islam	Algeria, Burkina Faso, Chad, Djibouti, The Gambia, Egypt, Guinea-Bissau, Guinea, Libya, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Sudan, Tunisia.	19
Income Levels	Low Income	Benin, Burkina Faso, Burundi, Central African Republic, Chad, Congo Republic, Congo Democratic Republic, Djibouti, Ethiopia, Eritrea, The Gambia, Ghana, Guinea-Bissau, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Togo, Uganda, Zambia, Tanzania, Zimbabwe.	30
	Middle Income	Algeria, Angola, Botswana, Cameroon, Cape Verde, Egypt, Ivory Coast, Equatorial Guinea, Gabon, Lesotho, Libya, Mauritius, Morocco, Namibia, Nigeria, Senegal, Seychelles, Sao Tome & Principe, South Africa, Sudan, Swaziland, Tunisia.	22
	Lower Middle Income	Angola, Cameroon, Cape Verde, Egypt, Ivory Coast, Lesotho, Morocco, Nigeria, Sudan, Swaziland, Tunisia.	11
	Upper Middle Income	Algeria, Botswana, Equatorial Guinea, Gabon, Libya, Mauritius, Namibia, Sao Tome & Principe, Seychelles, South Africa.	10

Num: number of countries

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