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Inequality, poverty and quality of institutions: which freedom channels of globalization matter for Africa?

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Inequality, poverty and quality of institutions: which freedom channels of globalization matter for Africa?

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Abstract

Are formal institutions instrumental in the effect globalization mechanisms have on the human face? If so, through which freedoms channels are poverty and inequality mitigated? With the instrumentality of formal institutions: (1) *de jure* financial liberalization (KAOPEN) has a positive income-redistribution impact while the *de facto* measure (FDI) does not; (2) political liberalization has a disequalizing effect and; (3) economic freedom has a positive (negative) effect on inequality (poverty). Hence, economic freedom does not stop the wealthy from growing wealthier, but at the same time provides for conditions that mitigate poverty. The findings broadly show that, despite the substantially documented negative incidences of some channels of globalization on poverty (and inequality), formal institutions have the capacity to device policies that will give capital openness, trade and economic liberalizations a human face. Social implications and policy options are discussed.

JEL Classification: F30; F41; F50; O15; O55
Keywords: Globalization; Inequality; Poverty; Formal institutions; Africa

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1. Introduction

Globalization has been recognized as the principal force currently dominating the economic universe. It upholds to illuminate the world with economic prosperity and seeks a victory of markets over governments and self-interest over altruism. Even more 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 however is that, while globalization is a lusty ineluctable historical process whose march can be halted only by endangering the prosperity of peoples and nations, it also threatens to disfigure human development in the manner it is evolving. Accordingly, as a dynamic force for change throughout the world, it is expected to cause unprecedented surges in the wealth of nation by extending the world's production possibility frontier outward and redefining the world as a "Global Village" (Asongu, 2013a). Conversely, it is also reviled as a process destined to cause social and economic disintegration as well as ecological decay. It is also feared to be accelerating the race to the bottom by grabbing from the poor and giving to the rich, marginalizing nations already integrated in the world economy and decoupling them from scientific advancements performed in the developed world. The phenomenon is deepening pre-existing hollows in the levels of economic wellbeing within and between nations to a threshold where they have become socially, morally and economically unacceptable. These have mushroomed increase fears that developed countries may increasingly use globalization to enact disguised colonialism. Hence, not surprisingly the public support for globalization has waned in both developed and developing countries with a frantic search for a third dimension out of the morally enervating regime of unvarnished capitalism.

The current wave of politico-economic globalization began in the 1980s with growing cross border financial flows among industrial countries as well as among developing

economies. This was facilitated by the liberalization of capital controls in many of these economies since it was widely anticipated that improved cross-border flows would bring higher gains in terms of better capital allocation and improved possibilities of international risk-sharing. Some scholars and policy makers have been of the view that, these benefits ought to be high for developing countries that have more volatile income growth and tend to be relatively capital-poor (Kose et al., 2006). Accordingly, with the surge in financial inflows came a spade of currency and financial turmoils in the late 1980s and 1990s. This pattern set the course for many policy makers to begin advocating that developing countries which opened-up their capital accounts have been more vulnerable to crises (and consequently more adversely affected) than their industrial counterparts (Kose et al., 2011; Henry, 2007; Asongu, 2013b,c). These developments have ignited a fierce and heated debate among academics and practitioners of globalization policies. While the debate over the positive gains from trade liberalization has moved towards a consensus (Kose et al., 2006), that on other globalization policies (especially capital account openness) has intensified and become more polarized (Asongu, 2013b,c).

In the 1980s and 1990s, most African countries embarked on a chain of globalization oriented measures (structural and policy adjustments at financial, economic and political levels) with the goal of given impetus to economic growth as well as improving overall economic and human development (Janine & Elbadawi, 1992; Asongu, 2013c). In the first generation of reforms, adopted policies revolved around: reducing direct government intervention in bank credit decisions, abolishing explicit control on the pricing and allocation of credit, relaxing of control on international capital movements and, allowing of interests rates to be market determined. Second generation reforms targeted institutional and structural constraints, notably: improvement of the legal, regulatory, supervisory and institutional environments, restoring of bank soundness and, rehabilitation of financial infrastructure

(Batuo et al., 2010). Unfortunately, despite over two decades of globalization reforms, poverty and inequality in Africa have remained stubbornly high (Asongu, 2013d). As far as we have reviewed, while a substantial bulk of the literature has examined the impact of global reforms on financial development and growth (Cho, 1986; Arestis et al., 2002; Batuo & Kupukile, 2010), the current bulk of studies that have investigated the pro-poor globalization channels in Africa have either been theoretical or limited to appraising first generation reforms for the most part (Nissanke & Thorbecke, 2005, 2008; Sindzingre, 2005).

With increasing 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, the present study aims to investigate two main issues arising: (1) whether institutions are instrumental in the effect of globalization on the human face and; (2) assessing the freedom channels of globalization that matter for the instrumentality of formal institutions in poverty and inequality reduction. By employing a plethora of globalization policies (financial, trade, institutional, political ...etc.), we present a broad and exhaustive picture of the nexuses between globalization and poverty. Moreover, the use of much recent data provides findings with more focused and updated policy implications. The rest of the paper is organized as follows. Data and methodology are discussed and outlined respectively in Section 2. Section 3 is devoted to empirical analysis. We conclude with Section 4.

2. Data and Methodology

2.1 Data

We examine a panel of 28 African countries with data from the World Development Indicators (WDI), Chinn & Ito (2002) and Gwartney et al. (2011) for the period 1996-2010. The latter and the latest sources provide measurements of "*de jure* capital openness" (KAOPEN) and economic freedom respectively. Limitations to the number of countries and

periodicity of analysis are twofold: the motivation of capturing the effects of second generation reforms and constraints in data availability on inequality, poverty and the quality of institutions. The dependent variables include: the GINI index and the poverty headcount ratio (less than $2 per day) for the appreciation of income-inequality and poverty respectively. Data on poverty is so scarce; nonetheless since scholarly focus on African poverty is rare owing to lack of relevant data, we have employed the few degrees of freedom we could fetch from the WDI.

In the study, we distinguish among four types of liberalization policies that come with globalization: financial, trade, political and other liberalizations. Firstly, financial liberalization is measured by: *de jure* capital account openness (KAPOPEN) developed by Chinn & Ito (2002); and *de facto* capital account openness (foreign direct investment: FDI). KAOPEN is the first principal component of four binary variables in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) and it takes higher values for more open financial regimes. We are motivated to add subtlety to the analysis by complementing KAOPEN with FDI because: (1) the former may not capture the actual ebb and flow of cross border capital and its impact (Aizenman et al., 2009); (2) the private sector often circumvents capital account restrictions, nullifying the expected effect of regulatory capital controls (Edwards, 1999) and; (3) more recently, China's *de facto* openness, despite its *de jure* closeness has been subject to discussion in research circles (Prasad & Wei, 2007; Aizenman & Glick, 2009; Shah & Patnaik, 2009). Secondly, trade liberalization is measured by trade openness and exports. While the former is the sum of imports and exports of commodities as a % of GDP, the latter only consists of commodity exports as a % of GDP. Thirdly, political liberalization is appreciated by the Polity IV index and democracy. Fourthly, the other liberalization measure is economic freedom which broadly represents: freedom to trade internationally; legal structure and security of property rights; access to sound money;

size of government (expenditures, taxes and enterprises) and; regulation of credit, labor and business.

Government quality instrumental variables include: corruption, government effectiveness, political stability (no violence), rule of law, regulation quality, corruption-control and voice & accountability. Owing to constraints in degrees of freedom indispensible for the overidentifying restrictions (OIR) Sargan test[2], we can only employ one control variable. We control for the wealth of nations with economic prosperity (GDP growth). Accordingly, we expect economic prosperity to mitigate poverty and inequality if its fruits are evenly distributed owing to the instrumentality of formal institutions.

Details about variable definitions and corresponding data sources, summary statistics (with presentation of countries) and correlation analysis (showing the basic correlations among key variables employed in the paper) are presented in the appendices. The summary statistics (Panel A of Appendix 1) of the variables used in the regressions show that, there is quite a degree of variation in the data used such that one should be comfortable and confident that reasonable estimated nexuses will emerge. Panel B of the summary statistics presents the countries funneled from constraints in data availability. The object of the correlation analysis (Appendix 2) is to mitigate concerns of overparametization and multicolinearity. From an initial assessment (based on the correlation coefficients), there do not appear to be any issues in terms of the nexuses to be estimated. The definition of the variables and corresponding sources are presented in Appendix 3.

2.2 Methodology

We are concerned with endogeneity for four main reasons: (1) the government quality instrumental variables are perception based measures that are subject to a high degree of

[2] An OIR test is only employable in the presence of over-identification. That is, the instruments must be higher than the endogenous explaining variables by at least one degree of freedom. In the cases of exact-identification (instruments equal to endogenous explaining variables) and under-identifications (instruments less than endogenous explaining variables) an OIR test is by definition not possible.

media propaganda; (2) we might have omitted some variables of government quality not incorporated in the WDI; (3) while globalization affects poverty, it cannot be ruled-out that the state of poverty (and inequality) in countries shape liberalization polices, hence an issue of reverse causality and; (4) the problem statement by definition presupposes the existence of endogeneity by its contingency on the use of instrumental variables. To tackle the endogeneity concern, we shall first assess its presence with the Hausman test before employing an estimation technique that is relevant to the outcome of the test.

We adopt a Two-Stage Least Squares (2SLS) Instrumental Variable (IV) estimation technique for two reasons: on the one hand, it addresses the puzzle of endogeneity and; on the other hand, it is compatible with the problem statement of the study which aims to assess the instrumentality of formal institutions in the effect of freedom channels on poverty (and inequality). Accordingly, IV estimation addresses the puzzle of endogeneity and hence avoids the inconsistency of estimated coefficients by Ordinary Least Squares (OLS) when the exogenous variables are correlated with the error term in the main equation.

We adopt the following steps in the IV analysis: (1) justify the choice of a 2SLS over an OLS estimation technique with the Hausman-test for endogeneity; (2) verify the instruments are exogenous to the endogenous components of the explaining variables (globalization freedom channels) and; (3) ensure the instruments are valid and not correlated with the error-term in the main equation with an Over-identifying Restrictions (OIR) test. Further robustness checks will be ensured with; (1) robust Heteroscedasticity and Autocorrelation Consistent (HAC) standard errors and; (2) the use of three-year non-overlapping intervals (NOI) to mitigate short-run disturbances that may loom substantially large.

3. Empirical analysis

3.1 Presentation of results

This section aims to tackle the two main issues highlighted in the motivation of the paper, notably: (1) whether institutions are instrumental in the effect of globalization on the human face and; (2) assessing the freedom channels of globalization that matter for the instrumentality of formal institutions in poverty and inequality reduction. While the first issue is addressed by the Sargan OIR test, tackling the second depends on both the results of the Sargan OIR test and the significance of estimated coefficients. The null hypothesis of the Sargan test is the position that the instruments explain inequality (poverty) only through the globalization freedom mechanisms, conditional on economic prosperity (control variable). Hence, a rejection of this null hypothesis is a rejection of the view that the government quality instruments do not explain inequality (poverty) beyond the globalization channels. A Hausman test is performed prior to every 2SLS-IV approach. The null hypothesis of this test is the stance that estimated coefficients by OLS are efficient and consistent. Hence, a rejection of this null hypothesis points to the concern of endogeneity due to inconsistent estimates and hence, lends credit to the choice of the IV estimation technique. Accordingly, but for a few exceptions in the poverty models (of Table2), there is an overwhelming rejection of the null hypothesis of the Hausman, hence, lending credit to the appropriateness of the choice of an IV estimation technique.

As concerns the first issue, the failure to reject the null hypothesis of the Sargan test in most of the models is an indication that, formal institutions are instrumental in the effect globalization freedom channels have on the human face. Concerning the second issue, the following could be established: (1) *de jure* capital account openness and trade openness mitigate inequality while economic freedom (polity IV) increases it (Table 1); (2) economic freedom decreases poverty while polity IV increases it (Table 2) and; (3) the control variable

of economic prosperity is significant with the right sign, meaning with the right institutions in place, economic prosperity mitigates inequality because the fruits of the prosperity are evenly distributed.

Table 1: Effect on Inequality

		Dependent variable: GINI coefficient							
		Full Data				**3 Year NOI**			
		Without HAC SE		Robust HAC SE		Without HAC SE		Robust HAC SE	
Constant		**-26.802***	**-39.940***	-26.802	**-39.940***	-1.281	-11.088	-1.281	-11.088
		(-1.668)	**(-1.759)**	(-1.261)	**(-1.717)**	(-0.037)	(-0.178)	(-0.027)	(-0.253)
	Kaopen	**-4.22*****	**-4.69*****	**-4.22*****	**-4.69*****	-3.345	-4.110	-3.345	**-4.110***
Financial		**(-4.068)**	**(-3.500)**	**(-2.712)**	**(-3.013)**	(-1.645)	(-1.236)	(-1.345)	**(-1.741)**
Liberalization	FDI	0.755	1.121	0.755	1.121	0.120	1.387	0.120	1.387
		(0.987)	(1.057)	(0.645)	(0.744)	(0.053)	(0.355)	(0.041)	(0.401)
	Trade	**-0.112***	---	-0.112	---	-0.093	---	-0.093	---
Trade		**(-1.741)**		(-1.587)		(-0.921)		(-1.113)	
Liberalization	Exports	---	-0.231	---	-0.231	---	-0.285	---	-0.285
			(-1.471)		(-1.348)		(-0.877)		(-1.156)
	Demo	---	0.294	---	0.294	---	0.511	---	0.511
Political			(0.993)		(0.984)		(0.772)		(1.489)
Liberalization	Polity IV	**0.423****	---	**0.423****	---	**0.546***	---	**0.546****	---
		(2.431)		**(2.273)**		**(1.867)**		**(2.201)**	
Economic Freedom		**13.00*****	**15.23*****	**13.00*****	**15.23*****	**9.681***	11.802	11.802	**11.802***
		(5.355)	**(4.132)**	**(4.013)**	**(3.976)**	**(1.938)**	(1.217)	(1.217)	**(1.821)**
Economic Prosperity		**-1.67*****	**-2.26*****	**-1.67*****	**-2.261****	**-2.591****	**-3.730****	-2.591	**-3.730***
		(-2.838)	**(-2.819)**	**(-2.391)**	**(-2.392)**	**(-2.070)**	**(-1.962)**	(-1.544)	**(-1.669)**
Hausman test		**64.11*****	**63.17*****	**64.11*****	**63.17*****	**30.95*****	**29.70*****	**30.95*****	**29.706*****
		[0.000]	**[0.000]**	**[0.000]**	**[0.000]**	**[0.000]**	**[0.000]**	**[0.000]**	**[0.000]**
Sargan OIR		**0.040**	**2.129**	**0.040**	**2.129**	**0.003**	**0.764**	**0.003**	**0.764**
		[0.839]	**[0.144]**	**[0.839]**	**[0.144]**	**[0.956]**	**[0.381]**	**[0.956]**	**[0.381]**
Adjusted R^2		0.368	0.322	0.368	0.322	0.263	0.210	0.263	0.210
Fischer		**15.70*****	**12.04*****	**15.90*****	**8.279*****	**5.704*****	**3.980*****	**14.73*****	**6.375*****
Number of Observations		136	136	136	136	65	65	65	65

*;**;***: significance levels of 10%, 5% and 1% respectively. Z-statistics in parentheses. [ ]: P-values. GINI: Inequality coefficient. OIR: Overidentifying restrictions. Polity IV: First Political liberalization measure. Demo: Second Political liberalization measure. FDI: Foreign Direct Investment. Kaopen: *de jure* measure of capital account openness. HAC SE: Heteroscedasticity and Autocorrelation Consistent standard errors. NOI: Non-overlapping intervals.

Table 2: Effect on Poverty

		Dependent variable: Poverty Head Count Ratio							
		Full Data				3 Year NOI			
		Without HAC SE		Robust HAC SE		Without HAC SE		Robust HAC SE	
Constant		**446.37****	119.667	**446.37****	119.66	**280.2*****	**231.87****	**280.2*****	**231.87*****
		(2.186)	(1.537)	**(2.089)**	(1.149)	**(2.628)**	**(2.115)**	**(3.921)**	**(3.558)**
	Kaopen	16.494	-2.556	16.494	-2.556	10.967	9.376	10.967	9.376
Financial		(1.272)	(-0.454)	(1.637)	(-0.496)	(1.096)	(0.472)	(1.499)	(0.568)
Liberalization	FDI	0.897	0.849	0.897	0.849	2.553	1.833	2.553	1.833
		(0.113)	(0.135)	(0.167)	(0.097)	(0.234)	(0.107)	(0.270)	(0.116)
	Trade	-1.119	---	-1.119	---	-0.872	---	-0.872	---
Trade		(-1.418)		(-1.413)		(-1.146)		(-1.212)	
Liberalization	Exports	---	-1.649	---	-1.649	---	-1.273	---	-1.273
			(-1.258)		(-1.057)		(-0.499)		(-0.537)
	Demo	---	1.532	---	1.532	---	3.495	---	**3.495****
Political			(0.847)		(1.027)		(1.075)		**(2.399)**
Liberalization	Polity IV	**5.758****	---	**5.758****	---	**3.376****	---	**3.376****	---
		(2.326)		**(2.389)**		**(2.221)**		**(2.345)**	
Economic Freedom		**-48.65****	---	**-48.65****	---	**-28.759***	-24.859	**-28.75****	-24.85
		(-1.966)		**(-2.192)**		**(-1.855)**	(-1.033)	**(-2.647)**	(-1.297)
Economic Prosperity		-4.980	-3.994	-4.980	-3.994	-0.834	-0.661	-0.834	-0.661
		(-0.712)	(-0.723)	(-0.609)	(-0.551)	(-0.117)	(-0.050)	(-0.134)	(-0.055)
Hausman test		**20.77*****	1.994	**20.77*****	1.994	**15.524****	8.315	**15.524****	8.315
		[0.002]	[0.849]	**[0.002]**	[0.849]	**[0.016]**	[0.215]	**[0.016]**	[0.215]
Sargan OIR		**0.010**	8.429**	**0.010**	8.429**	**0.023**	**2.463**	**0.023**	**2.463**
		[0.919]	[0.014]	**[0.919]**	[0.014]	**[0.876]**	**[0.116]**	**[0.876]**	**[0.116]**
Adjusted R^2		0.238	0.079	0.238	0.079	0.219	0.148	0.219	0.148
Fischer		1.987	1.217	**5.611*****	**2.128***	**2.784****	**2.141***	**10.37*****	**10.787*****
Number of Observations		27	32	27	32	32	32	32	32

*;**;***: significance levels of 10%, 5% and 1% respectively. Z-statistics in parentheses. [ ]: P-values. Poverty: Headcount on less than 2$ a day.. OIR: Overidentifying restrictions. Polity IV: First Political liberalization measure. Demo: Second Political liberalization measure. FDI: Foreign Direct Investment. Kaopen: de jure measure of capital account openness. HAC SE: Heteroscedasticity and Autocorrelation Consistent standard errors. NOI: Non-overlapping intervals.

3.2 Discussion of results

Before diving into the discussion of results, it is important to highlight two main practical difficulties. Firstly comparing the results of inequality (Table 1) with those of poverty (Table 2) may appear not so common place because of the substantial difference in degrees of freedom. The absence of a substantial change in the number of observations as one moves from "full data" to three-year NOI in Table 2 confirms the issue of shortage in degrees of freedom in the poverty data we have earlier discussed in the data section. Hence, we are aware of the risk of comparing results from the two tables and further argue that, applied econometrics has other tasks than the mere conformity to important (and comparable) degrees of freedom before empirical analysis. Our argument further holds grounds on two counts. Firstly, there are no other sources of data on poverty beside that from the WDI and, scholarly

focus has avoided employing the poverty headcount ratio because of the issues already covered above. Secondly, the effect of economic freedom on poverty and inequality is antagonistic which may raise further doubts as to whether the two tables are indeed comparable owing to the limited degrees of freedom in the second. Nonetheless, we shall carry on with the discussion contingent on the caveat that, the interpretations should be treated with caution in light of the points discussed above.

The inequality mitigating effect of *de jure* capital account openness and trade openness point the fact that, formal institutions have the capacity to device policies that will give capital and trade account liberalizations a human face. Three points are worth discussing. Firstly, as concerns financial liberalization, only the *de jure* KAOPEN indicator has a mitigating effect on inequality as opposed to the *de facto* FDI measure. It should be noted that, more recently, China's *de facto* openness, despite its *de jure* closeness has been subject to discussion in research circles (Prasad & Wei, 2007; Aizenman & Glick, 2009; Shah & Patnaik, 2009). The two financial liberalization measures differ principally in the point that, the former measures *de jure* capital openness by accounting for regulatory restrictions on capital account transactions, while FDI is *de facto* capital account openness. This finding is only logical because the KAOPEN by conception and definition is more subject to institutional control, hence its mitigating effect on inequality. Two important points are worth noting here. (1) The negative effect of KAOPEN runs counter to mainstream literature, a justification of the instrumentality of formal institutions used in the analysis. Cobham (2001) concluded a decade ago on the effect of capital liberalization on poverty: "*The key conclusion is that while the growth benefits of liberalization are far from clear for poorer countries, there may be significant costs in poverty terms. While further research is required in a number of areas identified, the main policy implication is that capital controls must be retained as part of the toolbox of pro-poor macroeconomic policymaking"*. (2) The fact that

FDI has a positive sign (though insignificant) was not unexpected. As far as we have reviewed, the two studies that have addressed the issue in African-inequality literature have found FDI to spur inequality. Using the same time span (1980-2002) and measure of inequality, Kai & Hamori (2010) and Asongu (2011a) have used the *de facto* FDI as a measure of capital account openness and found financial liberalization to fuel income-inequality. A logical inference from our findings is that formal institutions are instrumental (at least) in making FDI insignificant, though more could still be done to change the negative sign if more sound inequality mitigating policies are implemented.

Secondly, for more subtlety in the analysis, we have used two different measurements of trade liberalization: trade and exports. While trade has been found to decrease inequality, the effects of exports are not significant but have the right signs. With the primary sector focused on exports in African countries, it is logical to expect trade liberalization to induce an equalizing impact on income-distribution. From an import standpoint, the influx of affordable Chinese goods could also explain this effect. The instrumentality of formal institutions in the appealing effect of trade could be explained from the weight of available empirical evidence from African 'trade liberalization'-inequality literature that has substantially documented a positive trade-inequality nexus: cross-country evidences have shown the positive correlation between trade policies and income inequality through the channel of land abundance (Fischer, 2000) and through political economy factors (Easterly, 2002); intra-household inequality through changes in employment opportunities between male and female household members (Winters, 2000), as well as through changes in the composition of the whole workforce (UNDP, 2003) and; overall inequality tends to rise in Africa even if more women are employed with the expansion of textile industries in the wake of trade liberalization (Blackden, 2003).

Thirdly, the positive impact of political liberalization (democratization) on inequality is not unexpected in Africa. The advent of democratization does not really bring alongside good politicians that equitably share the fruits of economic prosperity. The case of many developing countries in Southeast Asia (Scott, 1972), India (Wade, 1985) and Turkey (Sayari, 1977); post communist countries like Russia (Varese, 1997) and many Latin American countries upon the waves of democratization (Weyland, 1998) confirm this fact. It is in this vein that Asongu (2011b) advises that democracy once initiated in Africa should be accelerated to edge the appeals of authoritarian regimes and reap the benefits of time and level hypotheses.

Contrary to the negative effect of financial liberalization on inequality, the insignificance of the globalization freedom channels on poverty is consistent with recent literature. Arestis & Caner (2010) have found no statistically significant relationship between the degree of capital account liberalization and poverty rate. The positive effect of political liberalization is consistent with the explanation provided above.

The antagonistic effects of economic freedom on inequality and poverty could be explained from the Pareto vs Gini debate. Accordingly, economic freedom has a substantial legal structure component which means that formal institutions are instrumental in economic freedom in comparison to other globalization channels. Hence, it could be established that formal institutions are instrumental in mitigating poverty but not inequality through the economic freedom channel. The explanation presupposes that, inequality according to Pareto is not bad provided the increase in wealth by some in the upper-income brackets is not at the expense of the worst-off (lower-income brackets). In this context, the Gini coefficient can be defined as an increase in the incomes of the rich with no change in the incomes of others. Hence, an increase in the Gini coefficient respects the Pareto rule. Hence, it could be said that

economic freedom does not stop the wealthy from growing wealthier, but at the same time provides for conditions that mitigate poverty.

4. Conclusion

Are formal institutions instrumental in the effect globalization mechanisms have on the human face? If so, through which freedoms channels are poverty and inequality mitigated? With the instrumentality of formal institutions: (1) *de jure* financial liberalization (KAOPEN) has a positive income-redistribution impact while the *de facto* measure (FDI) does not; (2) political liberalization has a disequalizing effect and; (3) economic freedom has a positive (negative) effect on inequality (poverty). The findings broadly show that, despite the substantially documented negative incidences of some channels of globalization on poverty (and inequality), formal institutions have the capacity to device policies that will give capital openness, trade and economic liberalizations a human face. 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, developing an industrial backbone for import-substitution or export-led industry, adoption of openness policies in a selective and gradual manner, 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 and presentation of countries

Panel A: Summary Statistics

		Mean	S.D	Min	Max	Obser.
Inequality	GINI Coefficient	43.104	6.828	29.760	67.400	356
Poverty	Poverty Head Count Ratio	66.320	24.439	12.820	96.570	73
Financial Liberalization	KAOPEN	-0.505	1.278	-1.843	2.477	392
	Foreign Direct Investment	2.777	4.252	-8.629	36.114	346
Trade Liberalization	Trade	68.687	29.967	21.574	187.68	401
	Exports	30.245	14.618	5.820	69.032	401
Political Liberalization	Democracy	3.285	4.164	-8.000	10.000	420
	Polity IV	1.857	5.106	-7.000	10.000	420
Other liberalization	Economic Freedom	6.118	0.632	4.710	7.820	250
Control variable	Economic Prosperity	4.273	3.710	-16.740	27.462	420
	Corruption Control	-0.471	0.560	-1.674	1.086	332
	Government Effectiveness	-0.498	0.597	-1.742	0.807	320
	Rule of Law	-0.518	0.608	-1.741	1.053	336
Instrumental variables	Regulation Quality	-0.391	0.526	-1.857	0.905	335
	Political Stability/No Violence	-0.500	0.823	-2.530	0.996	336
	Corruption	3.130	1.090	1.000	6.400	290
	Voice and Accountability	-0.470	0.626	-1.805	1.047	336

Panel B: Presentation of Countries

Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Guinea, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Nigeria, Niger, Senegal, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Zambia,

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

Appendix 2 : Correlation analysis

GINI	Poverty	KAOPEN	FDI	Trade	Exports	Demo	Polity IV	EcoFree	GDPg	
1.000	0.021	-0.032	0.094	0.144	0.154	0.241	0.352	0.273	-0.148	GINI
	1.000	-0.052	-0.0008	-0.312	-0.466	0.241	0.303	-0.282	0.141	Poverty
		1.000	0.060	0.049	0.113	0.192	0.120	0.673	0.077	KAOPEN
			1.000	0.434	0.117	-0.023	0.111	0.258	0.110	FDI
				1.000	0.843	0.185	0.258	0.335	-0.024	Trade
					1.000	0.154	0.167	0.370	-0.070	Exports
						1.000	0.774	0.373	0.114	Demo
							1.000	0.254	0.032	Polity IV
								1.000	0.098	EcoFree
									1.000	GDPg

GINI: Income Inequality Index. KAOPEN: De Jure measure of Capital Openness. FDI: Foreign Direct Investment. Polity IV: Measure of Political liberalization. Demo: Democracy. EcoFree: Economic Freedom. . GDPg: GDP growth rate.

Appendix 3: Variable definitions

Variables	Signs	Variable definitions	Sources
		Dependent Variable	
Inequality Index	GINI	Income Inequality Index	WDI (World Bank)
Poverty	Poverty	Poverty Head Count Ratio (Less than 2 USD per day)	WDI (World Bank)
		Independent Variables	
Financial Liberalization 1	KAOPEN	De Jure Capital Openness	Chinn & Ito (2002)
Financial Liberalization 2	FDI	Foreign Direct Investment (% of GDP)	WDI (World Bank)
Trade Liberalization 1	Trade	Imports + Exports of Commodities (% of GDP)	WDI (World Bank)
Trade Liberalization 2	Export	Exports of Good & Services (% of GDP)	WDI (World Bank)
Political Liberalization 1	Democracy	Level of institutionalized democracy (Estimate)	WDI (World Bank)
Political Liberalization 2	Polity IV	Level of Polity democracy (Estimate)	WDI (World Bank)
Economic Freedom	EcoFree	Economic Freedom Index	Gwartney et al. (2011). Economic

			Freedom Dataset
		Control Variable	
Economic Prosperity	GDPg	GDP growth rate (annual %)	WDI (World Bank)
		Instrumental Variables	
Corruption Control	CC	Control of Corruption (estimate): Captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests.	WDI (World Bank)
Government Effectiveness	GE	Government Effectiveness (estimate): Measures the quality of public services, the quality and degree of independence from political pressures of the civil service, the quality of policy formulation and implementation, and the credibility of governments' commitments to such policies.	WDI (World Bank)
Rule of Law	RL	Rule of Law(estimate): Captures perceptions of the extent to which agents have confidence in and abide by the rules of society and in particular the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence.	WDI (World Bank)
Regulation Quality	RQ	Regulation Quality (estimate): Measured as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	WDI (World Bank)
Political Stability/No Violence	PolS	Political Stability/ No Violence (estimate): Measured as the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional and violent means, including domestic violence and terrorism.	WDI (World Bank)
Corruption	CPI	Corruption Perception Index	WDI (World Bank)
Voice and Accountability	V&A	Voice and Accountability (estimate): Measures the extent to which a country's citizens are able to participate in selecting their government and to enjoy freedom of expression, freedom of association, and a free media.	WDI (World Bank)

WDI: World Bank Development Indicators. FDI: Foreign Direct Investment. GDP: Gross Domestic Product. PC: Principal Component. RL: Rule of Law. RQ: Regulation Quality. CC: Corruption Control. V& A: Voice & Accountability. PS: Political Stability. GE: Government Effectiveness. FDSD: Financial Development and Structure Database. USD: United States Dollars.

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