The Impact of Capital and Financial Flows on Human Welfare in Sub-Saharan Africa

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Abstract

In the last few decades, the world has become more linked owing to the increased intensity of globalisation across regions. Sub-Saharan African (SSA) has become relatively more integrated into global economy most especially in terms of capital and financial flow (foreign direct investment increased from 0.3

***Index terms*—** capital flow, financial flow, foreign direct investment, portfolio investment, human welfare, human development index (HDI).

The Impact of Capital and Financial Flows on Human Welfare in Sub-Saharan Africa Maku, Olukayode Emmanuel ? & Ajike, Emmanuel O. ?

Abstract-In the last few decades, the world has become more linked owing to the increased intensity of globalisation across regions. Sub-Saharan African (SSA) has become relatively more integrated into global economy most especially in terms of capital and financial flow (foreign direct investment increased from 0.3% in 1980-84 to 2.74% in ??000 -2012). Over the same period, the quality of life in terms of the proportion of SSA people that have access to basic necessities improved marginally (from 49% in ??1980] ??1981] ??1982] ??1983] ??1984] ??1985] ??1986] ??1987] ??1988] ??1989] ??1990] to 53% in 2000-2012 for water, 61% in ??1980] ??1981] ??1982] ??1983] ??1984] ??1985] ??1986] ??1987] ??1988] ??1989] ??1990] to 62% in 2000-2012 for health care services).

The endogeneous growth theory provided the theoretical framework for this study. Financial flow is captured by the foreign investment while the capital flow is proxied by the Portfolio investment. The human welfare was proxied by human development index, (HDI-a composite of three indicators: life expectancy at birth, mean year of schooling and income per head), access to basic necessities such as water, sanitation and health services were also used as alternative measure of human welfare while Governance index (GI) was considered as a control variable which stimulates globalisation and human welfare. The feasible Generalised Least Square (GLS) estimator was utilised to estimate the fixed and random effect panel regression models. Hausman test was used to determine the efficient estimator between fixed and random effects. All estimated coefficients were estimated at 1% level of significance. The panel consisted of sixteen countries selected from the four regional groups in SSA.

The results revealed that foreign direct investment significantly increased HDI (0.59), infant mortality rate (-2. 19), life expectancy (0.32), mean year of schooling (0.01), access to water (0.68) access to sanitation (0.27), and access to health services (0.54). The Portfolio investment was found to influence HDI access to health services and life expectancy at birth negatively but improved access to water and Sanitation significantly.

Financial and Capital channels of globalisation showed mixed effects on human welfare indicators. Hence, to maximize human welfare status of the SSA Countries via global integration (financial and capital flow), there is need for appropriate guided interaction; institutional reforms and improved quality of governance.

1 Introduction

ver the last few decades, the world has become more linked owing to globalisation across all regions. The scope of this global integration in all its ramifications has turned the world to a global village. Globalisation as a process is not limited to its economic perspective, rather it has also profoundly shaped the socio-political, technological and cultural landscapes of countries and regional groups.

Globalisation has brought a lot of benefits such as helping countries and regions by adopting a number of programmes and policies aimed at deriving immense benefits accruable from the rapid and intensive global interactions and interconnections especially with respect to poverty alleviation and improvement in the well-being of the people. However, globalisation has also brought with it a variety of problems that have worsened human welfare. How the Sub-Saharan African (SSA) countries have fared in this direction remains controversial among social science scholars and policy makers.

The literature on the impact of globalisation on poverty and human welfare points to highly variable outcomes (positive and negative) as well as multiple causalities, channels and mechanisms that link globalisation with human welfare. On the one hand, are those who find that globalisation worsens well-being **??**Milanovic and Squire, 2005;Ravallion, 2006;Wagle, 2007;Fosu and Mold, 2008). On the other hand, some authors point to evidence of human welfare improvements arising from globalisation (Bhagwati and Srinivasan, 2002; Dollar and Kraay;). Yet, some economists argue that there is no specific link between them (Sylvester, 2005 andChoi, 2006). Thus, there is no general consensus on how the integration of developing economies into the global market affects the welfare of their people.

In spite of the controversies surrounding the impact of globalisation on human welfare, evidence points to a high incidence of poverty in the era of intensive globalisation among the poor nations especially in sub-Saharan Africa. People in sub-Saharan Africa (SSA), as well as those in South Asia, are among the poorest in the world, in terms of real income, wellbeing status and access to social services. About 48.3 percent of the population of SSA live in poverty with an average life expectancy of 47 years (World Bank Report, 2011).

Since the Second World War, SSA has been relatively more integrated into the world economy, with high trade/GDP ratios **??**World Bank, 2006). In spite of the increasing degree of openness of the region to the global market, most of her social and human welfare indicators have recorded a downward trend **??**UNDP, 2008). If more openness stimulates growth, as proglobalisation advocates claim, such integration should have led to greater sustained growth in the SSA region than in Latin America, and South and East Asia. These regions have managed to lift their people out of abject poverty, deteriorating human welfare and high income inequality, which the SSA region to a large extent, has not.

This has been blamed on lack of institutional capacity, poor assets distribution, poor governance, persistence of civil strife and diseases, as well as low technological base. All these tend to make SSA unattractive to both foreign and domestic investors. Despite the rapid changes in world trade in the past few decades, SSA is characterised by low value added exports, especially agricultural commodities and minerals, which it exchanges for manufactured goods. The enclave nature of mineral production in the region, not only accounts for the exposure of the economies to international price fluctuations and adverse effects of technological backwardness, it is also to be blamed for her current status in the global market.

The major goals of the economic reforms in the region since the 1980s have been to reduce structural vulnerability by the integration of trade and capital flows and social contacts into the world economy as well as ensure sustained growth, poverty reduction, and human welfare improvements. Despite the long period of economic reforms in SSA, the majority of the region's population are still living in abject poverty. African countries have introduced reforms in more structural matters such as market deregulation, trade liberalization and public sector restructuring, including privatization, but all have failed to keep human welfare crises in check.

Despite several various programmes and policies put in place in the past four decades such as (Structural Adjustment Programmes, (SAPs); Poverty Reduction Strategies (PRSs), Millennium Development Goals, (MDGs); Social Protection, and Pro-Poor growth programmes), the level of decline in human welfare in SSA remains very high. For example, 46.4 percent of the people in the region were living below the one dollar per day poverty line in 2004 as against 41.6 percent in 1981 (Chen and Ravallion, 2004). In 2007, the World Bank poverty database put the proportion at 48 percent. Between 1975 and 2005, Africa recorded an overall decline of about 20 percent in the consumption of goods and services **??**UNDP Reports, 2006). Between 1980 and 2006, sub-Saharan Africa's private consumption per capita grew at an average of about 1.2 percent (UNDP, 2007). This was the worst in the world, when compared with other regions such as Latin America and the Carribbean-1.6 percent, South Asia-2 percent, East Asia and the Pacific-5.6 percent (World Bank Report, 2007).

Emanating from the above, this study aims at evaluating the impact of financial and capital flow dimension of globalisation on human welfare in the Sub-Saharan Africa between 1980 -2012.

2 a) Sub-Saharan Africa and the Global Economy

The region's integration into the global market in the last half of a century has been assessed with mixed reactions. The oil crises in the early 1970s sharply reduced SSA's trade openness (measured by sum of export and imports divided by total GDP). This was probably largely as a result of policies that restrict trade and more widespread use of foreign exchange controls. Countries in the region have varied degree of factor endowments. Their socio-economic and political structures also differ as a result of the differences in their legacy of colonialism and natural resources endowment. Generally, SSA countries are richly endowed with land and labour which make both subsistence and export crop farming major sources of income. To some extent, the region has been more integrated into the global economy in the last three decades (Table 2.1 and 2.2a). In spite of the increase in trade intensity, Africa's share of total world trade has fallen over the last three decades (see table **??**.2b). This confirms the assertion that, relying solely on trade intensity as an indicator of trade liberalization is problematic and it is a misleading measure of globalisation because there are many factors that may influence the ratio besides liberalization policies.

Since trade openness as a measure of globalisation has shortcomings, there is the need to look at indicators such as foreign direct investment (FDI). The relative increase in growth of FDI has sometimes been used as another indicator of globalisation (Geda and Shimeless, 2005). Since the early 1990s, many developing countries have enhanced their efforts to attract foreign direct investment (FDI), and the most successful have been those engaged in exporting fuels and mining products as fast-growing exporters of manufactures (UNCTAD, 2005). Within Africa, as in any of the global regions, there is considerable variance across countries in this regard.

Table 2.2a shows at the regional level, the estimate of FDI flows (inflow and outflow combined) expressed relative to GDP and net inflow as share of total FDI received by developing countries. Since FDI is a relatively volatile measure, the table shows the estimates smoothed as five-year averages, except in 2000-2012.

The top panel (a) confirms the marked increase in FDI relative to GDP in SSA countries over the 32-year period and especially in the last twelve years. Sub-Saharan Africa in particular has done better than most other regions; increasing from 0.3% in 1980-1984 to 2.74% in 2000-2012. The same ratio based on (equal) country weights suggests a greater increase, reflecting the high ratios in some low-income countries. In terms of the regional share of FDI, the estimates are far less favourable for SSA countries. The panel (b) shows that around 6 percent of the total net FDI inflow to developing countries accrued to SSA throughout this period. The increase in the share of world FDI received by SSA countries in the 1990s did not significantly impact on Africa: Africa's share fell to 4% of the total during the period (World Bank, 2013).

3 II.

4 Literature Review a) Conceptual Review

Precise definitions of globalisation are elusive but it is usually interpreted as an increase in integration and interaction between countries manifested through an increase in the movement of commodities, labour, capital (financial and physical capital), communication, information and technology. Yashin (2002) defines globalisation as an economic revolution of the new millennium in information and communication technology (ICT). Clark (2000), Norris (2000) and Keohane and Nye (2000) define globalisation to be the process of creating networks of connections among actors at multi-continental distances, mediated through a variety of flows including people, information and ideas, capital and goods. According to KOF Swiss Economic Institute (2010), globalisation is conceptualized as a process that erodes national boundaries, integrates national economies, cultures, technologies and governance and produces complex relations of mutual interdependence.

In terms of scope and dimension of globalisation, opinion varies from one scholar to another. Hveen (2002) identifies four processes in the current globalisation which he considers analytically separate but interrelated. The first is the convergence of ideas, norms and values, the second is the propagation of industrial organization, the third is the emergence of one global market while the fourth is the erection of super national institution with a global legitimacy and reach. Musa (2000) in his own perspective, identified three basic forces driving globalisation as technology, preference and public policy while the United Nations Institute for Social Development (UNRISD) lists six key trends of globalisation as the spread of liberal democracy; the dominance of market forces; the integration of global economy; The transformation of the product system and labour market; the speed of technological change and media revolution (UNRISD, 1995).

Poverty and Human welfare are closely related concepts. Poverty is not only blessed with rich vocabulary, it is a multi-dimensional concept that has been subjected to different definitions and interpretations. There is no universally acceptable definition of poverty and there is no objective way of measuring how people are poor (Afonja and Ogwumike, 1999). However, there are three major broad concepts in poverty. These are absolute poverty (lack of resources to buy bundle of goods and services); relative poverty (which compares the welfare of those with lowest amount of resources with others in the society); and subjective poverty (which require individuals including the poor to define what they consider to be decent or minimally adequate standard of living) **??**fonja and Ogwumike (1999).

World **??**ank (1990) defines poverty as the inability to attain a minimal standard of living as well as the lack of adequate income to purchase or command the basic goods for subsistence living. Watts (1997) refers to poverty as a lack of command over basic consumption needs, in other words, there is an inadequate level of consumption giving rise to insufficient food, clothing and shelter. Generally, poverty is measured based on income or consumption level. A group of people is considered poor if their consumption or level of income falls below some minimal level necessary to meet basic needs. The minimum level is usually referred to as poverty line. The poverty line has been defined by the Poverty Guidelines and Federal References of the United Nations as the minimum level of income deemed necessary to achieve adequate standard of living.

The dictionary meaning of welfare is "satisfactory state, health and prosperity, well-being, usually of person and society". Welfare is a function of goods and services, changes in the quality and quantity of goods and services, as also how their distribution among individuals in the society, will affect the wellbeing of the individuals and, through them, aggregate social welfare.

Human welfare on the other hand embraces the performance of social indicators. These indicators may be positive or negative. The negative indicators include degree of hunger and malnutrition as a component of poverty, infant mortality and prevalence of child labour. While positive indicators include life expectancy at birth, access to basic social needs (sanitation, health, water, etc.), and human development index ??Todaro and Smith, 2007). Hunger and under-nutrition retard education, human development, productivity and life expectancy. The inability of parents to provide children with their needs make them (the children) susceptible to child labour while infant mortality has been one of nature's cruel mechanism for keeping motherhood in great sorrow and grief. An increase in these negative indicators have the tendency to worsening the incidence of poverty.

Measurement of poverty has not only been difficult, it has equally being controversial. The monetary approach is the most commonly used. It identifies poverty with a shortfall in consumption (or income) from some poverty line. However, the approach faces the problem of how to appropriately determine the basic income level. The capability approach to the measurement of poverty, pioneered by Sen (1985Sen (, 1999)), rejects monetary income as its measure of wellbeing. Hence, this study adopts the use of Human Development Index (HDI) as proxy for human welfare which is a composite of people's well-being, incidence of poverty, human development, and access to basic necessities of life. This decision is in line with evidence in the literature, e.g. Henrich, (2009).

The HDI is the value for each country's journey covered towards the maximum possible value of 1 and how far it has to go to attain certain goals: an average life span of 85 years, access to education for all decent standard of living, etc. Developed by the United Nations Development Programme (UNDP) as a composite of three dimensions-health, education and standard of living-and four indicators-life expectancy at birth, mean years of schooling, expected years of schooling, and Gross National Income per capita. In the past, the HDI dimensions weight has been seriously questioned and this serves as its short comings. However, the HDI has been reworked and assigned equal weight to all the three dimension indices (HDR, 2010). The choice of HDI in measuring human welfare in a broader scope has also been justified by Noorkbakhsh (1998)

5 b) The Globalization-Capital Flows-Growth-Human

Welfare: Transmission Mechanism One major avenue through which globalization could affect the welfare of the poor is through financial liberalization, which has increased the growth for capital to flow to developing countries (Harrison, 2006). In theory, openness to capital flows (financial globalization) could enhance human welfare state and alleviate poverty through several channels. If greater financial integration contributes to higher growth by expanding access to capital, expanding access to new technology, stimulate domestic financial sector development, reducing transaction cost, and access to international capital markets should allow countries to smooth consumption shocks, reduce consumption volatility and increase real wages through output and investment growth. Then such growth should enhance human welfare. This channel is illustrated in figure ??. Prasad et al. (2004) begin by examining the relationship between financial integration and growth. They found that there is no clear relationship between the two. This suggests that the impact of financial integration on human welfare-via possible growth effects-is likely to be small. They also explore another link whether financial integration has smoothed or exacerbated output and consumption volatility. They pointed out that greater macroeconomic volatility probably increases human welfare deterioration, particularly when there are financial crises. Since the poor are likely to be hurt in periods of consumption volatility, real income smoothening made possible by financial integration could be beneficial to the poor.

6 III.

7 Methodology

The relevant theoretical framework for this study is rooted in the endogenous growth theory developed for accounting for long-term steady growth rate which is exogenously determined. The endogenous growth theory is applicable in overcoming the shortcoming that arises in building macroeconomic models out of microeconomic foundations. The theory suggests that a higher long-run rate of growth of output and improvement in social welfare can result from greater openness. This can occur either through favourable impact of openness on technological change or through expansion in the size of the market for exports thereby raising returns to innovation which enhances the country's specialization. The Solow (1956) endogenous growth model version was adopted in formulating the empirical model for this study as employed by Heinrich (2009), in order to formulate an empirical model for estimating the effects of national symbols and globalisation on the well-being of the people of 88 countries and also by Rao and Vadlamannati (2010) to investigate the precise link between globalization and growth in low-income African countries with extreme deteriorating human welfare.

The Solow (1956) endogenous growth model version was adopted for a number of reasons. Firstly, the Solow model is easy to extend and estimate compared to a variety of endogenous growth models which need complex nonlinear dynamic specifications and estimation of unobservable parameters like the inter-temporal elasticity of consumption substitution and the risk aversion rate etc. Bernanke and Gürkaynak (2002) and Greiner et al. (??004) have formulated such endogenous growth models, to estimate the permanent growth effects of variables like the saving rate and R&D expenditure, etc.

To quantify the impact of financial globalisation on the level of human welfare changes in SSA, the human development index (HDI) is used to proxy the level of human well-being as a composite measure of the poverty index and access to basic necessities of life. The HDI is preferable to per capita GDP as a broader measure of welfare changes because it measures human socio-economic development. This includes the knowledge (education) of the population (H 1), the health Year 2015

8 (B)

However, Prasad et. al (2004) argued that if financial globalization is approached with the right set of complementary policies, then it is likely to be growthpromoting and also less likely to lead to higherconsumption volatility. These policies include the use of flexible exchange rate, macroeconomic stabilization policies, good governance and the development of strong institutions.

(life-expectancy) of the population (H 2), and the per capita material condition of the population (Y), as in **??**lark and McGillivray (2007).

Following **??**einrich (2009) and Rao and Vadlamannati (2010), based on the work of Myrdal (1968), **??**laug (1970), **??**ohn (1979), Schultz (1981), and Becker (1996), H 1 as one of the components that determine endogenous long-run steady growth rate, and H 2 are elements of the human capital (H) component of the economically-active population (N). Thus, human welfare indexed by N can be stated as[ ] ( ) 2 1 2 1 ? ? Y H H N HDI + = ? ? (1)

where2 1 H H H + = [ ] 2 1 ? ? Y H N HDI = ? ? (2)

since the key assumption of the endogenous growth model is that human capital development (H, Y) is subject to diminishing returns. We then hold that1 2 1 < + ? ? (3)

in the short run, in that the rate of growth slows as diminishing returns takes effect and human well-being converges to a constant "steady-state" rate of growth that is constant returns. For the long-run steady growth, we then claim that1 2 1 ? + ? ? , (**4**)

where 1

? and 2 ? are weights. Moreover, Heinrich (2009) argues that basing H on the quality of labour (L) alone overestimates its importance. Also, **??**olow (1959) postulated that the long-run steady growth rate (alternatively and preferably measured as HDI) is exogenously determined by a set of factors. Therefore, we rather specify,) (X f H = (5) such that we can claim, N H q ln ? ? = (6)

where q is a vector of globalisation transmission mechanism forces schematically illustrated in the previous section and attributable to N. Now from equation (**??**), we assume that the material conditions (Y) of growth evolve according to the Cobb-Douglas transformation as modelled by the endogenous growth theorist. This is expressed as( ) ? ? ? = 1 K AL Y (**7**)

where A= multi-factor productivity or technological progress, L= labour, and K= physical capital, and that L grows exogenously at the rate n equal to the rate of growth of output, which is noted in the Solow growth model asN nL L nt t t ? = =) ( ) (, n 0 ? (8)

Then, substituting (**??**), (7) and (**??**) into (2) gives [ ] [ ] ( ) [ ] 2 1 1 ln ? ? ? ? ? ? ? = ? K AL N N q HDI ? ? (9) Simplifying, [ ] [ ] ( ) [ ] 2 1 1 ln ? ? ? ? ? ? ? = ? K N A N N nt q HDI ? ? ? (9) [ ] [ ]( ) [ ]) 1 (ln 2 2 2 2 1 1 ? ? ? ? ? ? ? ? ? ? ? ? ? = ? K N A N N nt q HDI ? ? ? [ ] ? ? ? ? ? ? ? ? ? ? ? ? 2 1 2 1 2 2 ln) 1 (+ + ? = ? N K A N nt q HDI ? ? (10) Set , 0 2 A A = ? ? ,) 1 (2 ? ? ? = ? , 1 ? ? ? = ? ? ? =N K A N nt q HDI ? ? ? + = ? ln 0 ? ? (11)

Then, dividing equation (**??**1) by N, givesnt q HDI K A ? ? ? + = ln 0 ? ? (12)

Equation (**??**2) represents the theoretical model for this study to investigate the effect of globalization on human welfare changes.

9 a) Model Specification

The model adapted for this study emanates from the theoretical formulated equation (12). From equation (**??**2), q is a vector of transmission mechanism sub-channels that explains the globalisation-growthhuman welfare nexus (as shown in figure **??**) which are exogenously determined. We then consider trade (TRD), portfolio investment (PFI), foreign direct investment (FDI), labour migration (LBM), and information and communication technology (ICT) as trade openness, capital flow, technology and labour mobility transmission channels as noted by **??**issanke and Thorbecke (2008;2010) and used in Heinrich (2009) to proxy national symbols and global interactions. Nissanke and Thorbecke (2006) argued that transfer of technology and knowledge (skills and management know-how) are assumed to accompany FDI which is not necessarily automatic or guaranteed in the globalisation-growth-human welfare transmission mechanism cycle (as shown in figure **??**).

However, Prasad et al. (2004) and Harrisson (2006) identified good governance as a significant factor that determines the capital flow-growth-human welfare channel. Therefore, on the basis of the foregoing arguments and objectives of this study, each of the transmission channel components, and good governance index (GGI) are taken as one of the vector q components that influence human welfare changes. Equation (**??**2) is extended asnt GGI LBM FDI PFI TRD HDI K A ? ? ? + ? =) , , **,, ln(0 ?**

? (13) From equation (13), where t=1, n is proxied as population growth rate for social welfare, which is equal to the exogenous growth rate of labour, and K is taken as the percentage share of fixed capital formation (FCF) from GDP. We then have,n GGI ICT LBM FDI PFI TRD HDI FCF A ? ? ? + ? =) , ,, **, , ln(0 ?**

? (14) Therefore, equation (**??**4) forms the exponential growth model for analyzing the impact of globalisation on human welfare in SSA.

For estimation, Equation (??4) is linearly specified in a panel model form to capture the crosscountry and time observation by taking the natural logarithm of both sides and this leads to t it it it it it it it it i it u n GGI ICT LBM FDI PFI TRD FCF a HDI+ + + + + + + + + = ? ? ? ? ? ? ? ? ? (15)

whereA A a ln ln 2 0 0 ? ? = = b)

10 Result Presentation and Interpretation

The fixed and random effects methods were employed in estimating the panel regression models that examine the impact of capital and financial dimensions of globalization on human welfare, other welfare measures and access to basic necessities. The estimated coefficients between the fixed and random effect models were compared using the Hausman test with the null hypothesis "random effects are uncorrelated with the explanatory variables".

The Hausman test result presented in Table ??.2 revealed that we should reject the null hypotheses for all the considered models at different (1%, 5% and 10%) significance level based on the calculated Chi-Square values. The fixed effect model was found more consistent and efficient for the purpose of this study. Also, two forms of estimated panel regression models were reported. First, the augmented theoretical model [1] that incorporates human welfare development effects of fixed capital stock (CFC), trade openness (TRD), portfolio investment (PFI), foreign direct investment (FDI), net labour migration (LBM),

11 Globalization

Note: [1]. Model 1 is the augmented theoretical model with control variables; [2]. Model 2 is the theoretical baseline model. [3]. * denotes significant at 1%; ** denotes significant at 5%.; *** denotes significant at 10%.. [4]. Absolute t-statistics are in parentheses. [5]. All regressions use the fixed cross-section effects cross-section weights standard errors and covariance (d.f. corrected) [6]. The fixed regression results of human welfare, other welfare measures and access to basic necessities models were reported on Table ??.2. The estimated aggregated [1] and disaggregated model [2] indicated that gross fixed capital stock (CFC) (as a measure of domestic capital) and foreign direct investment (FDI) as foreign capital of globalization have positive effect on the human development index (HDI), life expectancy index (LEI), mean year of adult schooling (MYS), access to improved water (WAT), sanitation (SAN), and health care services (HCS), while it exerts negative effect on infant mortality rate (IMR) in Sub-Saharan Africa (SSA) between 1980 and 2012. These effects are in agreement with the theoretical expectations and statistically significant at 1% critical level based on the reported t-statistic values.

In terms of effect size, 10% change in gross fixed capital stock (CFC) as a measure of domestic capital enhanced human development index (HDI), life expectancy index (LEI), reduction in the infant mortality rate (IMR), mean year of adult schooling (MYS), access to improved water (WAT), sanitation (SAN), and health care services (HCS) by 1.31%, 0.9%, -8.26%, 0.05%, 2.22%, 1.50%, and 1.65% for estimated theoretical augmented models [1]; and by 2.05%, 1.55%, -10.6%; 0.05%, 3.15%, 0.80%, and 2.76% for estimated theoretical baseline models [2] respectively. Also a 10% change in foreign direct investment (FDI) as capital channel of globalization improved human development index (HDI), life expectancy index (LEI), reduction in infant mortality rate (IMR), mean year of adult schooling (MYS), access to improved water (WAT), sanitation (SAN), and health care services (HCS) by 5.86%, 3.16%, -21.92%, 0.11%, 6.76%, 2.68%, and 5.40% for estimated theoretical augmented models [1]; and by 6.37%, 3.48%, -20.34%, 0.07%, 6.62%, 2.73%, and 6.55% for estimated theoretical baseline models [2] respectively. The financial dimension of globalization, proxied by portfolio investment (PFI) was found to exert negative effect on the human development index (HDI), life expectancy index (LEI), infant mortality rate (IMR), and access to improved health care services (HCS) in the SSA sub-region for the aggregated [1] and disaggregated [2] models. These effects with the exception of infant mortality rate (IMR) in terms of signs do not conform with the a priori expectations but were statistically significant at 1% critical level. The value of estimates indicated that a 10% change increase in portfolio investment (PFI), deteriorates human development index (HDI), life expectancy index (LEI), infant mortality rate (IMR), and access to improved health care services (HCS) by 0.06%, 0.14%, 0.13%, and 0.10% for the theoretical augmented models [1]; and by 0.13%, 0.20%, 0.13%, and 0.18% for the theoretical baseline models [2] respectively. Also, in conformity with the theoretical expected signs, portfolio investment (PFI) as a financial channel of globalization had a positive impact on mean year of adult schooling (MYS), improved access to clean water (WAT), and sanitation (SAN) in the Sub-Saharan Africa (SSA) sub-region between 1980 and 2012. These effects were found to be statistically significant at 1% critical level. In magnitude terms, a 10% change in portfolio investment (PFI) enhanced mean year of adult schooling (MYS), improved access to clean water (WAT), and sanitation (SAN) by 0.004%, 0.29%, and 0.15% for the aggregated models [1]; and by 0.002%, 0.26%, and 0.10% for the disaggregated models [2] respectively.

IV.

12 Discussion of Findings

The positive effects do conform with the apriori expectation. It also supports the empirical findings of earlier studies such as NIyongabo (2005), Roine, Vlachos, and Waldenstrom (2009), Shahbaz (2012), Atoyebi, Adekunjo, Edun, and Kadiri (2012), Faber and Gerritse (2012), and Kumar and Pacheco (2012). Among these studies, such as Santarelli and Figni (2002) that established that financial openness tends to be positively related to human welfare development in selected developing countries. Also, Hammoris and Kai (2004) reported that financial flow has equalizing effect on income distribution and improves human well-being in the entire SSA region. Also, these outcomes are in consonance with the result of Harrison (2006) using foreign direct investment as a measure of international capital flows of globalization.

Other studies such as Niyongabo (2005) using a panel of 102 countries that constitutes 30 Sub-Saharan Africa (SSA) between 1970 and 2000 indicated that private investment as a proxy for financial globalization has positive effect on real gross domestic product per capita growth rate. A similar finding using the same proxies was reported in a single country analysis in Nigeria by Oduh (2012). Also, from East Africa, Kumar and Pacheco (2012) reported human welfare enhancing effect of foreign direct investment as a component of globalization in Kenya. Likewise, using a long-run analysis in Pakistan, Shahbaz (2012) reported that financial openness has positive effect on real GDP per capita growth. These findings also complement the study of Roine, Vlachos, and Waldenstrom (2009) for a sample of 16 developing countries and also Beine, Lodigiani, and Vermeulen (2012) that employed remittance as a measure of remittance funds for welfare development for 66 developing countries.

However, some studies whose empirical outcomes refute the enhancing effect of financial globalization on human welfare development in SSA countries include **??**badan and Elizabeth (2009), Yeboah, Naanwaab, Saleem, and Akuffo (2012), and Ahmed (2013). Using a GMM estimator for a panel of 21 SSA countries, Ahmed (2013) reported negative effect of financial openness on economic growth. This divergence in empirical outcomes emanates from the considered proxy for human welfare development. Although, the negative effect of financial development (via portfolio investment) effect on gross domestic product per capita growth rate as a measure of income distribution in a single country study in Nigeria such as **??**badan and Elizabeth (2009) and Jalil (2012) in China that employed the Gini coefficient as a measure of income inequality complement our reported findings for Central, East and West Africa.

13 a) Policy Recommendations

The findings from the study discussed yields various policy implications for policy makers in Sub-Saharan Africa countries, in their attempt to reap the immense benefits emanating from global interactions and thus call for the need to harmonized reforms. This step is anticipated to improve human welfare development and enhance infrastructure accessibility, as the outcome of the empirical analysis revealed that trade openness enhances human well-being in the SSA region but with very small marginal effects in terms of magnitude it was also found to access to basic primary schooling and sanitations.

Therefore, there is need for policy makers in each SSA country to continuously increase the adoption and utilization of inclusive growth oriented trade policy tools such as moderate tariffs and non-tariff barriers to guide trade interactions with the global world especially via exports promotion strategy in order to facilitate development in human wellbeing. Also, harmonization of trade tariffs and reforms among SSA countries will further improve future multilateral trade negotiations, break down structural constraints emanating from open trade regimes and reduce restrictive trade measures such as import duties and taxes in order to enhance the capability of the people through domestic production and reduction in demand for imported goods.

Similarly, infrastructural support by the government is very imperative for globalization via information and technological flows to be effective in enhancing human welfare and improving the access of people to basic necessities. SSA countries could enhance the capability of the people and create a better enabling life for them by investing in infrastructural facilities and services such as water, sanitation, education, electricity, transportation, telecommunications, and health care services. However, for provision and accessibility of these infrastructural facilities to be more enhanced, private sector participation should be welcomed by the governments. Also following the empirical outcomes of this study, more capital inflows and off-shore portfolio investment are required to stimulate human well-being in SSA region. Infrastructural development will not only enhance local production and motivate free trade. It will also stimulate foreign direct investment which has been found to have a positive impact on human welfare development via employment generation and capacity utilization. [1]

Figure 1:

2

1 compares SSA with other global regions in terms of trade openness (market integration) between 1980 and 2012, a period which marks the era of intensive globalisation, not only in SSA countries but globally. The table provides trade openness data covering the period when many SSA countries embarked on economic reforms and programmes. The table shows the general trend towards greater openness over the past three decades across all global regions (1980-2012) based on GDP weights. The trend is not uniform, either across regions or over time, and this is an important feature. At first sight, openness in SSA is higher than most other regions in almost all years shown, but this is potentially misleading because of region-specific factors (IMF, 2005). Average trade intensity has increased in Africa in line with the overall global increase, but not as rapidly as almost all other low-and middle-income regions.

Figure 2: Table 2 .

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	1980-84	1985-89	1990-94	1995-99	2000-12
Sub Saharan Africa	0.30	0.50	0.72	2.04	2.74
Latin America and Caribbean	0.83	0.75	1.17	3.26	3.16
South Asia	0.07	0.10	0.23	0.68	0.67
East Asia	0.57	0.90	2.99	3.98	3.13
East Europe and Central Asia	0.06	0.07	0.47	2.22	2.81
Middle East and North Africa	0.46	0.47	0.91	0.76	1.08
World Total	0.54	0.77	0.84	2.00	2.64

Notes: I-Inflow and 0-Out flows

Source: World Bank (2013) average annual rates

(b). Foreign Direct Investment: FDI (regional shares of total)

	1980-84	1985-89	1990-94	1995-99	2000-12
Sub Saharan Africa	0.06	0.09	0.04	0.04	0.06
Latin America and Caribbean	0.47	0.42	0.31	0.40	0.34
South Asia	0.01	0.02	0.02	0.02	0.03
East Asia	0.31	0.35	0.51	0.37	0.33
East Europe and Central Asia	0.01	0.02	0.01	0.15	.021
Middle East and North Africa	0.13	0.01	0.04	0.02	0.03

[Note: Source: World Bank (2013) average annual ratio.]

Figure 3: Table 2 . 2 :

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Figure 4: Table 5 . 2 :

good governance index (GGI), telephone access (TEL),

Human Welfare Other Welfare Measures Access to Basic Necessities and working population growth ra

Constant CFCRDFIDIBGGITEL

Figure 5:

.1 Appendix a

List of Selected Countries in Ssa Regions and Criteria of Selection CENTRAL AFRICA

.2 Gabon

The two countries selected in Central Africa sub-region are major oil exporters. They are all members of World Trade Organization (WTO) which means they are committed to multilateral trade liberalization. The selection mix comprises of the strongly globalized in the region (Gabon) with aggregate KOF globalization index of 48.0473 between 1970-2012 which is above the regional average; and also, the least globalized in the region (Central Africa republic) with aggregate KOF globalization index of 27.8089 between 1970-2012 which is below the regional average. The average growth rate of real GDP in the region between 1980-2008 is 2.1% while the average growth rate of the selected countries is 2.5%, in the same period (ADB, 2009).

.3 Central Africa Republic

Cameroon Rwanda EAST AFRICA Kenya All the countries selected in the region thrive on tourism and exports of primary products, notably tea, cotton and coffee. The selection mix comprises of the relatively globalized in the region (Kenya) with aggregate KOF globalization index of 36.8172 between 1970-2012 which is above the regional average; and also, the least globalized in the region (Tanzania) with aggregate KOF globalization index of 26.9387 between 1970-2012 which is below the regional average. The selected countries has an average growth rate of real GDP as 3.1 between 1980-2008, which is very close to the average growth rate of the entire region in the four decades. All the countries experience a fiscal deficit of 2.5% to 7.5% of GDP between 1980-2008 (ADB, 2009).

.4 Tanzania

.5 Mauritius

.6 Tanzania

.7 SOUTHERN AFRICA South Africa

The selected countries in the region are heavily reliant on exports of nonoil minerals (gold, diamonds, copper, platinum) and agricultural products. The selection mix comprises of the strongly globalized in the region (Mauritius) with aggregate KOF globalization index of 47.2209 between 1970-2012 which is above the regional average; and also, the least globalized in the region (Malawi) with aggregate KOF globalization index of 38.9133 between 1970-2012 which is below the regional average. All selected countries are member of WTO and Southern Africa Development Community (SADC), making the countries relatively open.

.8 Malawi

.9 Botswana

.10 Mozambique

.11 WEST AFRICA

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.12 Nigeria

The selected countries in the region comprise of one CFA countries (Benin) and one non-CFA countries (Nigeria). The selected countries are net oil importers except Nigeria. In all, there is one upper income economy (Nigeria) and one lower income economy (Benin) are selected for the study. The selection mix comprises of the strongly globalized in the region (Nigeria) with aggregate KOF globalization index of 40.7923 between 1970-2012 which is above the regional average; and also, the least globalized in the region (Benin) with aggregate KOF globalization index of 29.0580 between 1970-2012 which is below the regional average. The selected countries are member of ECOWAS, which in principle is committed to the suppression of custom duties and equivalent taxes within the region and the establishment of a common external tariff. The countries selected in the region are relatively open by the continent's (Africa) standard.

.13 Ghana

.14 Benin

.15 Niger

.16 Appendix b

Time Series Plots Trend of Foreign Direct Investment (FDI) for specific sampled countries in Africa

.17 FDI_UG

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[Dollar and Kraay ()] , D Dollar , A Kraay . *Trade, Growth and Poverty. Economic Journal* 2004. 114 p. .

[Human Development Report ()] , *Human Development Report* 2007. Oxford University Press. (UNDP)

[Human Development Report ()] , *Human Development Report* 2008. Oxford University Press. (UNDP)

[Maddison ()] , A Maddison . *Historical Statistics of World Economy* 2010. Organization for Economic Cooperation and Development. p. .

[Hdr ; Heckscher and Ohlin ()] , E F Hdr ; Heckscher , B G Ohlin . *Human Development Report* 2010. 2010. 1991. Oxford University Press.

[Solow ()] 'A Contribution to the Theory of Economic Growth'. R M Solow . *The Quarterly Journal of Economics* 1956. 70 (1) p. .

[Afonja and Ogwumike ()] B Afonja , F Ogwumike . *Poverty Meaning Measurement and Causes: Integrating poverty Alleviation. Strategies into Plans and Programmes*, 1993. p. .

[Obadan and Elizabeth ()] 'An Empirical Analysis of the Impact of Trade on Economic Growth'. M Obadan , H Elizabeth . *Journal of Economics* 2012.

[Wagle ()] 'Are Economic Liberalization and Equality Compatible?'. U R Wagle . *Evidence from South Asia. World Development* 2007. 35 (11) p. .

[Becker ()] G Becker . *Human capital*, (Chicago) 1996. University of Chicago Press. (3 rd edition)

[Nissanke and Thorbecke ()] 'Channels and Policy Debate in the Globalisation-Inequality-Poverty Nexus'. M Nissanke , E Thorbecke . *World Development* 2006. 34 (8) p. .

[Sen ()] *Commodities and Capabilities*, A K Sen . 1985. Amsterdam, North-Holland.

[Cohen ()] *Cultural strategies in the organization of trading diasporas. The development of indigenous trade and markets in West Africa*, A Cohen . 1971. p. .

[Choi ()] 'Does foreign direct investment affect domestic income inequality?'. C Choi . *Applied Economic Letters* 2006. 13 p. .

[Milnovic and Squire ()] *Does tariff Liberalization increase wage inequality? Some Empirical Evidence*, B Milnovic , L Squire . 2005. World Bank Washington, DC. (World Bank Policy Research working Paper No 3571)

[Shahbaz ()] 'Does trade openness affect long run growth? Cointegration, causality and forecast error variance decomposition tests for Pakistan'. M Shahbaz . *Economic Modelling* 2012. 29 (6) p. .

[Donahue] Donahue . *Governance in a Globalizing World*, (Washington, D.C) Brookings Institution Press. p. .

[Todaro and Smith ()] *Economic Development*, M P Todaro , S C Smith . 2003. New York: Pearson Education Inc.

[Prasad et al. ()] 'Effects of Financial Globalization on Developing Countries: Some Empirical Evidence'. S Prasad , R Kenneth , W Shang-Jin , M A Kose . http://www.nber.org/papers/w12347 *Globalization and Poverty. NBER Working Paper No. 12347*, 2004. 2006. June 2006.

[Yeboah et al. (2012)] 'Effects of Trade Openness on Economic Growth: The Case of African Countries'. O A Yeboah , C Naanwaab , S Saleem , A S Akuffo . *2012 Annual Meeting*, (Birmingham, Alabama) 2012. February 4-7, 2012.

[Clark ()] 'Environmental Globalisation'. William Clark . *Governance in a Globalizing World*, Joseph S Nye, John D Donahue (ed.) (Washington, D.C) 2000. Brookings Institution Press. p. .

[Musa ()] 'Factors Driving Global Economic Integration'. M Musa . *Global Economic Integration: Opportunities and Challenges*, 2000. 85.

[Sylvester ()] 'Foreign Direct Investment Growth and Income Inequality in Less Developed Countries'. K Sylvester . *International Review of Applied Economic* 2005. 19 p. .

[Fosu and Mold ()] 'Gains from Trade: Implication for Labour Market Adjustment and Poverty Reduction in Africa'. A Fosu , A Mold . *African Development Review/Reme Africaine de Development* 2008. 20 (1) p. .

[Haveen (2002)] 'Globalisation, Governance and Development: A political Economy Perspective'. H Haveen . *European Journal of Development Research* 2002. June. 14 (1) p. .

[Ann (2006)] *Globalization and Poverty*, Harrison Ann . http://www.nber.org/papers/w12347 2006. June 2006. (NBER Working Paper No. 12347)

[Haveen ()] H Haveen . *Globalisation politics: International investments, production and trade*, 2002.

[Heckscher-Ohlin trade theory] *Heckscher-Ohlin trade theory*, The MIT Press.

[Chen and Ravallion ()] 'How Have the World's Poorest Fared Since the Early'. S Chen , M Ravallion . *World Bankl Resaerch Observer -WORLD BANK OBSERVER RES OBSERVER* 2004. 1980s. 19 (2) p. .

[Schultz ()] *Investing in People: The Economics of Population Quality*, T Schultz . 1981. Berkeley: University of California Press.

[Jones ()] R W Jones . *Globalization and the theory of input trade*, 2000. MIT Press. 8.

[Keohane et al. (ed.) ()] Robert O Keohane , Joseph S Nye . *Introduction*, Joseph S Nye, JohnD (ed.) 2000.

[Ravallion ()] 'Looking Beyond Averages in Trade and Poverty Debate'. M Ravallion . *World Development* 2006. 34 (8) p. .

[Jalil ()] 'modelling income inequality and openness in the framework of Kuznets curve: New evidence from China'. A Jalil . *Economic Modelling* 2012. 29 (2) p. .

[Norris and Nye Donahue (ed.) ()] Pippa Norris . *Global Governance and Cosmopolitan Citizens*, Joseph S Nye, John D Donahue (ed.) (Washington, D.C) 2000. Brookings Institution Press. p. . (Governance in a Globalizing World)

[Riley ()] *Poverty and Life Expectancy*, J Riley . 2005. Cambridge, UK: Cambridge University Press.

[Myrdal ()] *Problem of Population Quality in Asian Drama. An inquiry into the poverty of nations*, G Myrdal . 1968. 3 p. .

[Siddiqui ()] *Remittances, Trade Liberalization and Poverty in Pakistan. The Role of excluded Variables in the analysis of poverty changes*, R Siddiqui , AR . 2002. DFID Project Paper.

[Sen ()] A K Sen . *Development as Freedom (DAF)*, (Oxford) 1999. Oxford University Press.

[States of Disarray. The Social Effects of Globalisation UNRISD ()] 'States of Disarray. The Social Effects of Globalisation'. *UNRISD* 1995. UNISRD.

[Cohen ()] *The Economic of Education. Cambridge*, E Cohen . 1979. Ballinger Publishing Company.

[Noorkbakhsh ()] 'The Human Development Index: Some Technical Issues and Alternative Indices'. H Noorkbakhsh . *Journal of International Development* 1998. 10 p. .

[Roine et al. ()] 'The long-run determinants of inequality: What can we learn from top income data?'. J Roine , J Vlachos , D Waldenstrom . *Journal of Public Economics* 2009. 93 (7) p. .

[Solow ()] 'Toward a Macroeconomics of the Medium Run'. R M Solow . *Journal of Economic Perspectives* 2000. American Economic Association. 14 (1) p. .

[Bhajwati and Srinivasan ()] 'Trade and Poverty in the poor countries'. Bhajwati , T N Srinivasan . *American Economic Review* 2002. 92 p. .

[Faber and Gerntse ()] 'Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System'. B Faber , Gerntse . *The Review of Economic Studies* 2014. p. 10.

[Oduh ()] 'Trade Openness and Output Variability in Nigeria: Implication for EU-ACP Economic Partnership Agreement'. M Oduh . *Developing Country Studies* 2012. 2 (7) p. .

[Ahmad ()] *Turkey: The quest for identity*, F Ahmad . 2014. Oneworld Publications.

[Decanq and Lugo ()] *Weights in Multidimensional Indices of Well-being*, K Decanq , M A Lugo . 2009. (OPHI working paper No. 18)

[Kumar and Pacheco ()] 'What determines the long run growth rate in Kenya?'. S Kumar , G Pacheco . *Journal of Policy Modeling* 2012. 34 (5) p. .

[Watts ()] 'World Poverty Report, 1990. Washington DC, The World Bank'. H Watts . *Improving Measures of Economic well being*, (Washington DC, The World Bank) 1997. 1990. 2006. 2006. World Bank. 51. (An Economic Definition of Poverty)

[Yashin ()] Emmanuel Yashin . *Globalisation on Subversive to Africa's Development. Trust News Paper*, (Nigeria) 2002.