International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

THE IMPACT OF ILLICIT FINANCIAL FLOWS ON SOCIAL WELFARE IN SUB-SAHARAN AFRICA

Ndonwi Nestone Munang and Nji Ngouhouo Ibrahim

University of Dschang, Cameroon

DOI: 10.46609/IJSSER.2023.v08i10.013 URL: https://doi.org/10.46609/IJSSER.2023.v08i10.013

Received: 3 October 2023 / Accepted: 23 October 2023 / Published: 1 November 2023

ABSTRACT

In studies concerning Illicit Financial Flows, one issue of relative importance is the role it plays in depleting social welfare standards in developing countries. The aim of the paper is to empirically investigate the impact of illicit financial flows on social welfare in Africa using a sample of 41 African countries over the period 2008 to 2017. Using data from Global Financial Integrity (GFI) and the World Development Indicator (WDI) and employing the General Method of Moment (GMM), we find out that illicit financial flows reduce welfare in Africa when captured by the Human Development Index as well as access to basic necessities like water, electricity and education. Results equally show some dynamism depending on the political regime (autocracy or democracy) practiced in the country. From our results, efforts in curbing illicit financial have to be emphasized in order for African countries to attain the welfare levels enjoyed by other developed countries.

Keywords: Illicit Financial Flows; Social Welfare; General Method of Moment, Sub Saharan Africa.

INTRODUCTION

For decades now, questions on how Sub-Saharan African countries fare has remained very pertinent among social science scholars and Economic policy makers. This question arises because, in spite of these African countries being very rich in agricultural resources, human capital and mineral resource deposits, as well as receiving the lion share of global Official Development Assistance(33.6%) they have continually lagged behind in terms of growth, development and most particularly social welfare levels. This is evident by the fact that more than half of the world's extreme poor population lives in Sub-Saharan Africa (Simeng Zheng et al, 2019) making the continent the least developed with most of its countries still mired by corruption with limited access to basic necessities like water, education and electricity.

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Multidimensional poverty is still very high with food and water crisis rampant as over 54% of the African population suffer from multi-dimensional poverty (Sabina Alkire et al 2016). Access to basic necessities like education, electricity and portable drinking water remains very low compared to other continents and life expectancy remains very short while infant mortality rate remains very high at 41 per thousand (World bank statistics 2022)

These very development levels and low welfare outcomes have for long been blamed on lack of institutional capacity, poor assets distribution/inequality, corruption, mismanagement and poor governance, persistence of civil strife and diseases, as well as low levels of technology. Considering the above stated factors as being the main elements responsible for the low level of development and social welfare in SSA, structural and economic reforms have been carried out in the region since the 1980s with the aim of reducing the structural vulnerability of the continent through its trade integration, proper management of capital flows and social contacts with the world's economy as well as ensuring sustained growth, poverty reduction, and improving human welfare. These Structural Adjustment Programs (SAPs); Poverty Reduction Strategies (PRSs), Social Protection, and Pro-Poor growth programs etc. though very impactful have all failed to completely salvage the human welfare crises as over 50% of the region's population still lives in poverty with the level of decline in human welfare still remaining very low.

In recent economic studies, Illicit capital outflow from Africa has gained grounds as one of the major factors depleting Africa of the resource which could be used to better its welfare situation. Illicit Financial outflow which amounts to over $88.6 billion dollars per annum (Kar and Cartwright-Smith, 2010) and have surpassed $1trillion over the last six decades (Kar and Cartwright-Smith 2010; Kar and Leblanc 2013) have been considered as one of the important factors eroding the developmental and welfare capacities of the continent making it impossible to achieve its sustainable development goals of reducing the number of people living below the poverty line. Almost exceeding the ODA and FDI inflow into the continent, it represents loss in terms of finances which could be used to ameliorate the continent's infrastructure, health, and education and consequently welfare which is a cause for alarm further compounding the challenging situation of a continent in distress.

This paper argues that IFF from Sub-Saharan Africa reduces the welfare of the continent using a sample of 41 African countries over the period 2008 to 2017. This is basically explained by the fact that, according to Kar and Cartwright-Smith (2010) and Kar and Leblanc (2013), the continent has lost more than $1 trillion over the past 60yrs which could have been used to provide quality education, electricity, education and road infrastructure thereby improving their welfare. Again, repatriation attempts have proven futile while ODA, FDI and remittances have greatly reduced in recent years worsening the situation of a continent in distress. IFF therefore worsens welfare in SSA via a number of direct and indirect channels; Firstly, IFFs are associated

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

with low efficient economic outcomes, lower rates of poverty reduction and more rent-seeking behaviour. Secondly, IFFs reduce state building capacity by reducing the revenues needed to finance development and state building. Thirdly, IFFs are often associated with state capture and deteriorating institutional quality. Fourthly, IFFs have disproportionately detrimental impacts on those citizens already most "left-behind", given their effect in facilitating and exacerbating corruption and conflict in the poorest countries all of which deteriorates welfare.We employ the General Method of Moments to investigate the relationship, using alternative variables like the HDI, access to electricity, education and drinking water as proxy of social welfare.

Though numerous studies have been carried out investigating the effects of capital exiting the continent, the closest study to ours is that kwesi I. and Gabor D. (2021) who employed the Driscoll-kraay method to study the welfare implications of capital flight and external debts on welfare in SSA from 1990 to 2015. Our study, in contrast to the above-mentioned study focuses on the welfare implications of illicit financial outflows and equally uses multiple variables to alternatively capture welfare in SSA. Our study therefore is of empirical and operational relevance as it provides empirical evidence of the effects of IFF on welfare in SSA as well as operationally guiding policy makers towards taking better decisions to curb such flows.

In addition to the above introductory section, the rest of the paper will be organized as follows; in section 2 we provide the literature review; section 3 will be devoted to the estimation methodology and results while the conclusion and recommendations will be presented in section 4.

LITERATURE REVIEW

Studies focusing on effects of illicit financial flows on welfare in SSA have shown diverse results. Though few studies have directly investigated this empirical relationship, numerous studies have been carried out proving indirect channels via which IFF can reduces welfare in SSA. According to economics literature, IFF deteriorates welfare in three main ways (i) by increasing inequality, (ii) by restricting the ability of poorer countries to meet up with richer countries thereby stifling growth and development and (iii) by increasing state capture reducing domestic revenue mobilization.

Firstly, according to authors like (Kar et al., 2015), (Kar, Schjelderup, Salomon and Baker, 2015) (Alstadsæter et al. 2017), (Cobham et al. 2017), (OECD, 2018a) etc. illicit financial flows deplete welfare standards in SSA by accentuating inequality gaps between developing and developed countries as well as between members of one same country. IFF therefore constitute a reverse distribution mechanism of wealth from lower income countries (mostly African and Asian countries) to higher income countries reducing the welfare of these low-income countries.

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

This result was backed by studies of Kar, Schjelderup, Salomon and Baker (2015) who discovered that the net resource transfer between developed and developing countries, using both recorded capital flows, remittances, non-financial transactions, and unrecorded illicit financial transactions is negative both in nominal terms and as a percentage of GDP. These authors show that, since the 1980s, developing countries have been de-facto net creditors to the rest of the world economy.The richest countries benefit the most, while the poor and middle class lose the most worsening their welfare standards considered to already be a problem. In the same light, Alstadsæter, J. and Zucman (2017) estimating the stock of wealth locked away in tax heavens using newly published bilateral bank deposit data for a range of countries show that the stock of wealth located in tax havens (mostly developed countries) makes up approximately 10% of the world's GDP. A greater majority of this wealth hidden away in these developing countries come from under developed countries through IFF. They stipulate that accounting for this hidden wealth would significantly increase the size of the 0.01% richest citizens' share in estimates of wealth distribution in most countries and not the 99.9% poor citizens exacerbating inequalities. Therefore, taking into consideration the uncounted wealth locked away overseas in tax heavens demonstrates that actual levels of domestic wealth inequality are likely significantly higher than previously thought. Cobham et al, (2017) equally show that reducing IFF will lead to a reduction in inequality captured by the Gini and Palma index.

A second way through which IFFs erodes social welfare levels of lower- and middle-income African societies is by restricting the ability of these countries to catch up with high income ones. This is done by stifling growth and development via the erosion of revenue intended for building state capacity. In this light, the Alliance to Combat Illicit Trade (2019) investigated the effects of IFFs in the agro-foods, alcohol, fisheries, forestry, petroleum, pharmaceuticals, precious metals and gemstones, pesticides, tobacco, wildlife and counterfeiting industries on the 17 Sustainable Development Goals (SDGs) as well as selected targets under each goal using secondary data. According to them, illicit trade affects the implementation of all 17 Sustainable Development (SDGs), but these negative effects are particularly more evident for SDG 8 (decent work and economic growth) and SDG 16 (peace, justice and strong institutions). Illicit trade has a strong negative impact on almost all targets under SDG 16, including reducing violence, ending the exploitation of women and children, promoting the rule of law, ending illicit flows, countering corruption and ending terrorist financing. Also, the Transnational Alliance to Combat Illicit Trade (2019) emphasises that illicit trade has a tendency of benefiting organised crime, destabilise communities and divert private investment opportunities into criminal markets. Likewise, a 2015 report by the expert working group known as the United Nations Economic Commission for Africa (UNECA) found that IFFs have detrimental impacts on development. Using conservative estimates, the report stipulates that the African continent as a whole loses somewhere around US$50 billion annually to IFFs. Presumptively, this amount must have risen

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

in conjunction to the growth of the African economy as a whole. First and foremost, IFFs contribute to the undermining of institutions, both directly, because IFFs are associated with measurable increases in corruption and state capture and indirectly, because such corruption weakens the social contract between citizen and state (UNECA 2015). Ogbonnaya and Ogechuckwu, (2017) equally show that IFF has a negative effect on Economic growth in Nigeria since it reduces state revenue while Yikona, Slot, Geller, Hansen and elKadiri (2011**)** measuring the impact of dirty money on economic development in Malawi and Namibia underline the implication that dirty money and the associated phenomenon of IFFs undermines poverty reduction and tend to be associated with non-productive allocation of resources. Though such dirty money is detrimental to the economy, it however ambiguously increases the welfare of launderer and his immediate family since it increases their consumption levels temporarily. Hendriyetty and Grewal (2017) identifies three ways through which money laundering can affect overall economy performance and subsequently welfare outcomes. Firstly, money laundering is associated with an overall increase in IFFs in line with the findings of Yikona et al. (2011). Secondly, it increases the size of the shadow (or informal) economy vis-a-vis the formal indirectly lowering labour market participation in formal sectors. Thirdly, money laundering hinders domestic revenue mobilization which essentially reduces the ability of governments to harness resources for development from their natural resources.

Thirdly, according to economics literature another very important channels through which illicit financial flows undermines welfare in SSA and other developing countries is by reducing state's ability to mobilize domestic revenue particularly revenue from the primary sector. As such, the inability of states to mobilize domestic revenue is widely recognized as a key constraint to development as well as an enabler of low welfare levels. In this light and according to the 2014 OECD report on Fragile States, IFFs constitute the highest source of revenue loss from SSA, and as such poses serious challenges to the development of state capacity in these fragile states. IFFs in low-income states cripples their capacity to fund the developmental programs needed to make progress towards the 2030 Agenda targets. Corroborating these results, O'Hare, Makuta, Bar-Zeev, Chiwaula and Cobham (2014) find out that without IFFs, some countries would have achieved MDG 4 in less than a quarter of the time that it would otherwise have taken them. Again,Coplin and Nwafor (2019) show how IFFs not only causes a decline of fall domestic revenue but equally how IFFs shift the tax burden towards the middle and lower end of the income distribution spectrum thereby reducing their welfare. These results tie with those of Alonso-Terme (2014) and the OECD (2019).

EMPIRICAL VERIFICATION

The data used in this study covers 41 African countries over the period 2008 to 2017. The choice of the period is because of data availability. Welfare in the course of this study is regarded as a

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

function of available goods and services, changes in the quality and quantity of these goods and services, as well as how they are being distributed amongst all individuals in the society. Following the studies of Liliana Donath and Anca Brad (2013) as well as Maku, Olukayode Emmanuel and Ajike, Emmanuel O.(2015), the HDI index is used as an excellent measure of welfare. We also employ alternative variables like access to electricity, drinking water and access to secondary education as proxy of social welfare. Data on IFF is collected from global financial integrity data base (GFI, 2017)and is captured by trade mis-invoicing which measures the total value gaps identified between trade records of developing countries and all its trading partners. Data on control variables was collected from World Development Indicator (WDI). The following table describes the data.

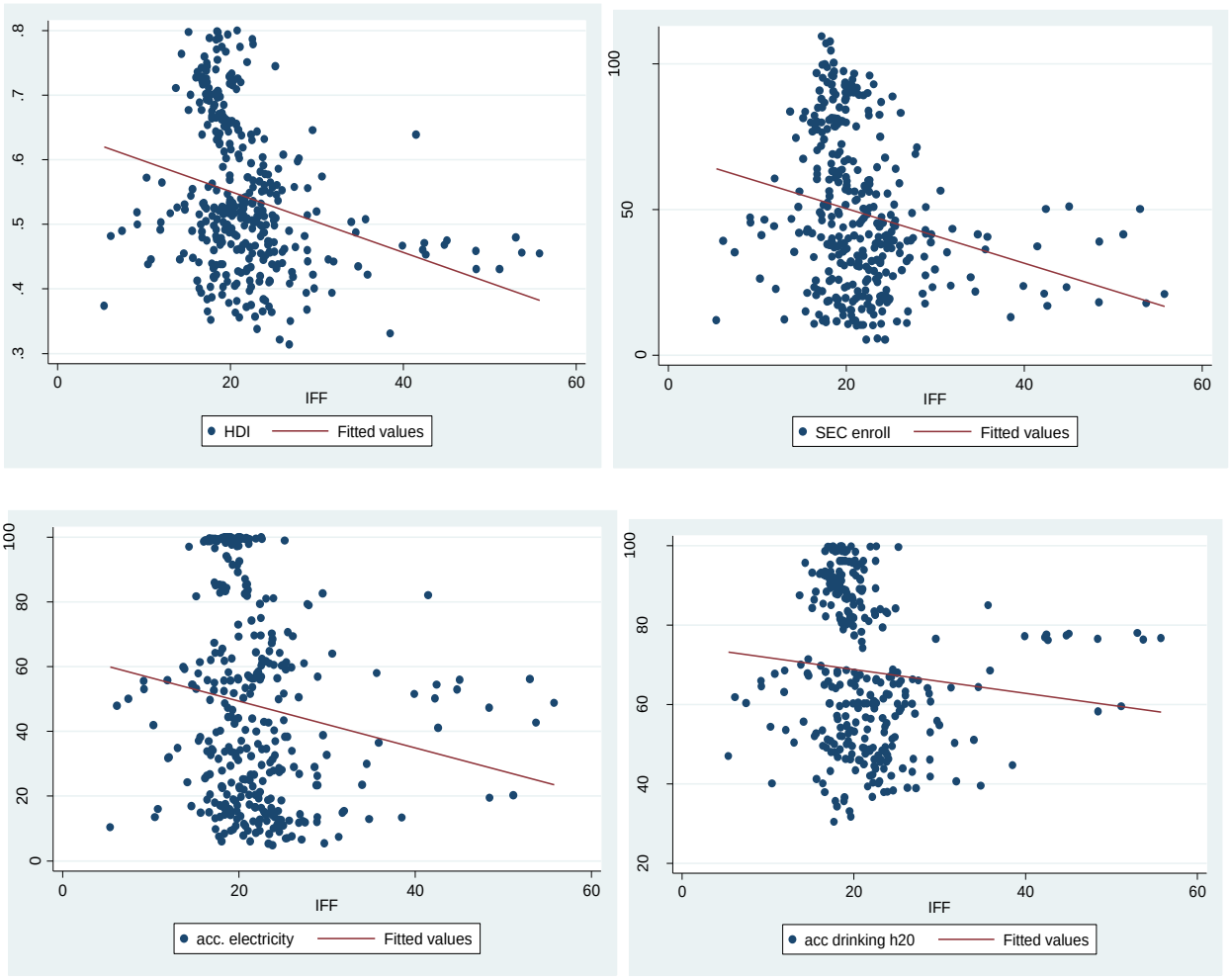
Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
HDI	410	.544	.116	.314	.8
Education	408	47.993	25.948	3.599	109.444
Electricity	410	48.368	30.404	4.8	100
Water	360	68.135	19.023	30.367	99.867
IFF	355	21.829	6.668	5.39	55.78
FDA	410	6.576	6.124	.01	32.63
Oilrent	410	3.733	9.981	0	62.76
Mineralrent	410	1.851	4.308	0	46.625
Corruption	410	-.513	.613	-1.627	1.039
Growth	410	4.502	8.2	-62.076	123.14
ICT	403	3.97	1.969	.456	11.717
FDI	410	4.29	6.005	-6.057	57.838
Shadow	390	33.683	7.849	17.77	56.689
Tradeopennes	406	70.736	33.807	15.649	225.023
Externaldebts	410	33.027	22.552	.058	146.674

Source: Author using data from WDI

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"



Source: author from WDI

From the above Table, African countries have an average HDI of 0.544% which is the lowest compared to any other continent in the world. Equally access to basic necessities like secondary school enrolment (47.993%), access to electricity (48.368%) and access to drinking water (68.138%) remain low while IFF is very high at 21.829% compared to other continents.

Empirical model and Econometric methods

To achieve our objective, we employ an ameliorative adaptation of the model of Liliana Donath and Anca Brad (2013) in order to identify the effects of IFF on welfare. according to review of literature there exist a plethora of economic and institutional factors which influences welfare and are included in our model as control variables. We equally use the HDI index as a proxy of welfare as well as other indicators as modelled by Olukayode and Ajike, 2015) who indicated

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

that there exists a relationship between financial flows and welfare.The inclusion of IFF in the model is however our main element of focus. The econometric equation is as follows;

$$\mathbf{HDI_{it} = \alpha_0 + \beta IFF_{it} + \lambda X_{it} + \mu_i + \pi_t + \epsilon_{it}}$$

HDI_{it} is the level of welfare proxied by the human development index in economy i for the period t; $IFF_{it,}$ the amount of illicit financial flows emitted by country i during period t and X a matrix of macro-economic variables capable of influencing the level of welfare in SSA. μ_i is the individual fixed effect while π_t is the individual temporal effect of country during period t. ϵ_{it} is the error term of the model. α, β, and λ are the parameters to be estimated. The parameter on which we construct our hypothesis is β since it permits us to capture the effects or how much IFF can affect the level of welfare or HDI in each country.

As earlier mentioned, IFF therefore represents the level of capital illicitly sent out by each country while X is a matrix of macro-economic variables that are also susceptible of affecting welfare. The control variables used in the model are defined as follows;

GDP: The state of an economy expressed by the level and rate of its economic growth is one of the most important determinants of welfare or standard of living of the population of certain countries. Gross domestic product (GDP) means the value of goods and services created by production factors located within a certain economy. GDP is therefore an indicator of aggregate economic activity which is also frequently used to describe or measure social welfare. The logic behind this reasoning is that GDP correlate with consumption, which in turn is commonly used as a proxy for welfare. In other words, the more people consume, the happier they are supposed to be. There therefore exist various connections between the economic situation of countries and the welfare of its population.

Inflation: a persistent increase in general price level over a long period of time influences welfare and standards or living in many different ways. Most studies provide evidence consistent with a negative relationship between inflation and welfare. According to Ben Craig and Guillaume Rocheteau (2006) inflation negatively affects welfare through a negative real balance effect. The resulting e inflation tax introduces a wedge in the decision to invest in real balances which also influences investment. Also, Shutao Cao et al (2018) shows that the negative effects of inflation on welfare depends on the income levels of these household as high-income earners prove to suffer from inflation more than low-income earners. Inflation in our study is captured using the Consumers Price Index (CPI)

Unemployment: unemployment rate, captured by the percentage of a country's work force that cannot find paid jobs at the prevailing market wage rate equally affects the welfare of citizens in any given economy. As a matter of fact, an unemployed person cannot afford basic necessities

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

like water, clothing and accommodation which seriously negates their welfare levels. This particularly explains why the government of developed countries spend heavily on unemployment benefits to level of the living standards of these unemployed.

Corruption: using the corruption perception index to capture corruption and the HDI to capture welfare, Joko Mariyono (2012) demonstrates that corruption has negative impact on welfare. The results also emphasize that the impact in low-income countries is more destructive than high income countries. In the same light, Lambsdorff, Johann (2001), equally shows that Corruption renders governments unable or unwilling to maximize welfare. According to the study, corruption reduces welfare in two main ways; firstly, corruption distorts agents' decisions and limits the contractual space available to agents and the government, acting as a benevolent principal and secondly, a corrupt principal creates allocative inefficiencies, cripples its credible commitment to effective policies, and opens the door to opportunism.

Political stability: instability is consistent with fall in investment, consumption, human rights as well as a slowdown in economic growth and development. This is explained by the fact that during periods of instability, resources are diverted from the production of consumer and producer goods which influences welfare to the production of military equipment. African countries which are characterised by constant conflicts are therefore consistent with low welfare levels while countries which are more stable have higher welfare levels. Instability therefore distorts investment, production and consumption. We use the political stability from the governance database to capture the variable.

Shadow: though there exist numerous definitions of the shadow economy, one of the most acceptable is "...shadow economy is an economic activity such that the income derived from it avoids government regulations, taxation and control". According to Khaibat Magomedtagirovna Musaev (2017), the shadow economy promotes an increase in the welfare of the population only in case of one representative and on the contrary, it decreases the welfare of the population when represented by many representatives. We investigate this premise using the size of the underground economy provided by the world development indicator.

Natural resource rent: According to World Bank staff estimates based on sources and methods described in the World Bank's database, total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. According to Anggraeni, Palupi (2019) and Anggraeni, P., Daniels, P. & Davey, P. (2022), natural resource rent contributes positively to economic welfare when measured by Adjusted Net Saving (ANS) though through a conditional link. Focusing on RRCs, their results demonstrate an ambiguous relationship with some models demonstrating no significant association. Segregating RRCs according to per capita income levels, a negative association between rents and economic

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

welfare appears to exist in low and lower-middle income RRCs. In upper-middle income RRCs, natural resource rents are likely to have no association; and, in high-income RRCs, they appear to have a positive association with economic welfare. Findings from their study equally suggest that FDI, institutional quality and IVA do have an effect on the resource-welfare relationship. However, it is necessary to consider the particular characteristics of each country, such as natural resource productivity and income level

ICT: ICT is a generally accepted to mean all devices, networking components, applications and systems that combined allow people and organizations (i.e., businesses, non-profit agencies, governments and criminal enterprises) to interact in the digital world. Following the studies of Clem Tisdell (2017), ICT has the potential to increase economic efficiency by reducing input costs in relation to output (increasing technical efficiency) and by enabling greater allocative efficiency to be achieved. ICT equally elevates economic welfare by reducing market transaction costs. It accounts for technological innovations.

FDI investment: using foreign direct investment as a percentage of GDP,Clem Tisdell (2017) show that when foreign direct investment increases by 1%, welfare equally increases by 0.434 point. His results were consistent with the results of the Sharma and Gani (2004) which concluded that FDI was beneficial for improving well-being. In the same light, Belzas Belity (2022) investigates whether FDI can be beneficial in the presence of profit repatriation using a general equilibrium model calibrated to V4 economies. On average, a 1% increase in the share of foreign firms is associated with a 0.17% increase in welfare. However, incentivizing foreign firms to reinvest more of their profits domestically is, *ceteris paribus*, welfare-improving. A 10-percentage-point increase in the profit repatriation rate is associated with a 1.06% welfare gain on average

RESULTS

The first part will be our base results obtained by estimating the effects of IFF on welfare captured through the HDI. The second will be to use alternative measures of welfare like access to drinking water, electricity and secondary school enrolment and the last part will be testing for sensitivity by taking into consideration the political regime, production structure and parliamentary representation.

Table 2: Results of the effect of IFF on social welfare (HDI)

	(1)	(2)	(3)	(4)	(5)
VARIABLES	HDI	HDI	HDI	HDI	HDI

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

L.HDI	0.983***	0.993***	0.948***	0.944***	0.945***
	(0.0254)	(0.0204)	(0.0177)	(0.0344)	(0.0272)
IFF	-0.000306***	-0.000169*	-0.000101	-0.000385***	-0.000361**
	(0.000115)	(9.61e-05)	(0.000131)	(0.000109)	(0.000143)
GDP	-1.55e-07	-1.20e-06	4.71e-06***	6.23e-07	5.41e-06**
	(1.11e-06)	(1.08e-06)	(1.79e-06)	(1.18e-06)	(2.20e-06)
Inflation	-0.000104	4.56e-05	-0.000103	0.000299	3.20e-05
	(9.79e-05)	(8.53e-05)	(7.72e-05)	(0.000201)	(0.000208)
Unemployment	6.45e-05	0.000534*	-0.000357	0.000412	0.000212
	(0.000336)	(0.000280)	(0.000389)	(0.000256)	(0.000403)
Corruption	-0.000373	-0.00534**	-0.00188	-0.00388	0.00125
	(0.00220)	(0.00208)	(0.00191)	(0.00408)	(0.00333)
Polistability	0.00459***	0.00291**	0.00379***	0.00288	0.00478**
	(0.00167)	(0.00136)	(0.00145)	(0.00263)	(0.00192)
Shadow	1.37e-05	-0.000470**	-0.000415**	-0.000368	-0.000476*
	(0.000185)	(0.000193)	(0.000163)	(0.000278)	(0.000244)
Resourcesrents	0.000286**	-0.000233	1.70e-05	-0.000155	3.10e-05
	(0.000123)	(0.000210)	(9.74e-05)	(0.000242)	(0.000178)
ICT	5.42e-05	0.000196	-5.81e-05	-0.000884	-0.00266***
	(0.000365)	(0.000316)	(0.000365)	(0.000669)	(0.000829)
FDIinflow	-6.15e-06	4.94e-05	-8.51e-05	-0.000303	-0.000165
	(0.000184)	(0.000161)	(0.000129)	(0.000366)	(0.000381)
Constant	0.0213*	0.0274**	0.0457***	0.0563**	0.0608***
	(0.0124)	(0.0107)	(0.0112)	(0.0219)	(0.0170)

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Observations	290	254	168	122	97
Number of numbers	38	32	22	16	14
Sargan	51.41	77.88	50.20	27.90	19.43
AR(1)	0.003	0.007	0.000	0.010	0.004
AR(2)	0.524	0.645	0.966	0.234	0.578

Source: author through stata

Note: Robust standard errors are reported in bracket (***, **, *) indicate the statistical significance at 1%, 5% and 10% respectively.

As indicated on the table, our base results show that IFF exerts a negative effect on welfarein Africa for the total sample as well as for other sub samples. In order words, IFF reduces the level of human development in Sub-Saharan Africa. As a matter of fact, a 1% increase in IFF leads to a 0.000115% fall in human welfare captured by the Human Development Index. Between 1980 and 2018, sub-Saharan Africa emitted over $1 trillion in illicit financial flows. This Amountposes a development challenge to the region, as they remove domestic resources which could have been crucial for the continent's economic development and augmentation of welfare standards and corroborates the findings of Landry Signé, Mariama Sow, and Payce Madden, 2020. For Africa to attain the level of productive capacity which will enable it achieve the welfare standards enjoyed by other continents, it will require increasing investment in infrastructure, promoting technology transfer coupled with innovation for value addition, and boosting agricultural productivity. However, this goal of achieving a developed African state has been enormously retarded by the financial structures of IFF, which undermines the continents potentials for economic transformation through draining tax revenue and scarce foreign exchange resources, stifling growth and socio-economic welfare. (Geda and Yimer, 2016; Ndikumana, Boyce, and Ndiaye, 2015; Boyce and Ndikumana, 2000). In a region where 500million people are without food or unable to eat a balance diet on a regular basis with a malnourishment rate of 24.1% and also harbouring over 33.8% of the 60million children not in school, further loses in Illicit Financial Outflows therefore adds a huge blow to the already deteriorating welfare standards.

Our results equally show that corruption, the shadow economy and ICT reduces social welfare in Sub-Saharan Africa. Corruption is basically associated with reductions in welfare for two main reasons. Firstly, corruption slows the rate of poverty reduction by reducing growth (Alesia and weder, 2002) and secondly, corruption causes increased poverty levels (Ra-hayu and Widodo, 2012).Corruption equally leads to the misallocation of resources, increase in the cost of doing

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

business while reducing the productivity of capital (Larmsdorf, 2003). The Shadow economy on the other hand reduces welfare by creating sub-optimal economic conditions.

On the other hand, growth captured by the GDP and political stability are consistent with an increase in welfare. Real growth accompanied by growth in investment and consumption which increases welfare standards Purnamita D. et al (2018) while politically stable nations remove the ambiguity about the future and economic agents look at the future with confidence (Dr Ali ACAR, 2020). Results using alternative measures of welfare is presented below.

Table 3: Effects of IFF on alternative indicators of welfare (Education, Electricity and Water)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	HDI	Education	Electricity	Water	HDI	Education	Electricity
L.HDI	0.988***				0.998***		
	(0.00492)				(0.0134)		
L_Education		0.968***				0.788***	
		(0.0283)				(0.0941)	
L_Electricity			0.920***				0.875***
			(0.0376)				(0.0603)
L_Water				0.953***			
				(0.0117)			
IFF	-0.000243**	-0.103*	-0.176**	-0.0456***	-0.000209**	0.0489	0.0424
	(0.000111)	(0.0587)	(0.0845)	(0.0168)	(9.64e-05)	(0.0923)	(0.0615)
Foreignaid					0.000237	-0.275	-0.178*
					(0.000175)	(0.372)	(0.0914)
Oilrent					-0.000177	0.148	0.0857
					(0.000155)	(0.309)	(0.132)
Mineralrent					-0.000379	-0.462	0.0617

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

					(0.000263)	(0.373)	(0.141)
Corruption					0.000434	2.754	-2.427
					(0.00317)	(5.184)	(2.208)
Growth					0.000628***	0.130	0.0325
					(8.35e-05)	(0.118)	(0.0750)
ICT					0.000796***	-0.258	0.118
					(0.000285)	(0.312)	(0.246)
FDIinflow					-1.99e-05	-0.218	-0.102
					(0.000164)	(0.187)	(0.0964)
Shadow					0.000453**	-0.268	-0.273*
					(0.000199)	(0.288)	(0.162)
Tradeopenes					0.000128**	-0.155	-0.0682
					(6.07e-05)	(0.123)	(0.0433)
Externaldebt					-8.20e-05	0.0356	0.106**
					(7.57e-05)	(0.0821)	(0.0456)
Constant	0.0181***	5.732**	8.640***	4.709***	-0.0146	33.79*	15.39*
	(0.00453)	(2.414)	(3.103)	(0.953)	(0.0111)	(18.59)	(8.683)
Observations	316	314	316	282	296	294	296
Number of number	41	41	41	36	39	39	39
Hansenp	0.997	1.000	0.999	0.373	0.750	0.287	1
AR(1)	0.011	0.004	0.000	0.083	0.001	0.003	s0.000
AR(2)	0.130	0.188	0.988	0.906	0.924	0.148	0.951

Source: author through stata

Note: Robust standard errors are reported in brackets. (***, **, *) indicate statistical significance at 1%5% and10%

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Following the studies of Olukayode and Ajike (2015), we use access to drinking water, education and electricity as alternative variables to proxy welfare in Sub-Saharan Africa. From our results, illicit financial flows reduce access to drinking water, access to education as well as electricity in Africa.

As earlier mentioned over 95% of people living without electricity are found in sub-Saharan Africa and developing Asia in rural areas. More precisely, in sub-Saharan Africa alone, about 620 million people which represents over 50% of the continents total population still live without electricity. In Sub-Saharan Africa, only about 24% of the population has access to safe drinking water. This is far below that of any continent and even the world average. Apart from general unavailability, there equally exist significant discrepancies in access to drinking water within same countries, notably between the rich and the poor living in urban and rural areas. Access to education remains low compared to other countries. Illicit financial flows stifle access to basic amenities because financial resources which could be used in the provision of these amenities are illegally sent out of the country through IFF.

ANALYSING THE SENSITIVITY OF RESULTS (Robustness checks

The impact of IFF has proven to be dynamic over time depending on the type of political regime being practiced by the country. In this section we test for sensitivity of our results in autocratic and democratic political regimes. This is explained by the fact that in an autocratic regime, the leader has a greater probability of getting away with his preferences unlike in the case of the democracy (Jone C. and Haig P., 2012). In order to test for this approach empirically, we divide our sample size into two sub groups. One constituting autocratic countries or non-democratic countries with a polity2 score of less than zero (polity2<0) and democratic nations with a poilty2 score greater than zero (polity2>0)

The results from estimating our model in the case of autocracy and democracy are presented on the following table;we observe that certain variables lose their significance while other which were previously positive became negative.

Table 4: effects of IFF on welfare under autocracy

	Autocracy	Autocracy	Autocracy	Autocracy	Autocracy	(Autocracy
VARIABLES	HDI	Education	Electricity	HDI	Education	Electricity
L.HDI	0.988***			1.001***		

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

	(0.00720)			(0.00748)		
Education		0.960***			0.925***	
		(0.0438)			(0.0684)	
Electricity			0.993***			0.970***
			(0.0129)			(0.0124)
IFF	-0.000144***	0.0953	-0.0313	-0.000360**	-0.0471	0.0422
	(4.20e-05)	(0.0582)	(0.0310)	(0.000144)	(0.210)	(0.0293)
APD				-7.02e-05	-0.324	-0.166*
				(0.000138)	(0.356)	(0.0864)
Oilrent				-0.000320**	-0.0505	0.0766
				(0.000125)	(0.216)	(0.0513)
Mineralrent				0.000944	0.661	0.801***
				(0.00123)	(1.114)	(0.278)
Corruption				-0.00338	6.591	0.854
				(0.00333)	(5.063)	(0.743)
Growth				0.000761***	0.0763	-0.0111
				(0.000122)	(0.111)	(0.0539)
ICT				0.000583	-1.485**	0.0629
				(0.000418)	(0.633)	(0.292)
FDIinflow				0.000141	-0.285	0.195*
				(0.000222)	(0.352)	(0.0998)

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Shadow				0.000736**	0.424*	-0.0403
				(0.000358)	(0.250)	(0.0605)
Tradeopennes				0.000124**	0.0255	-0.0725*
				(5.87e-05)	(0.0733)	(0.0371)
Externaldebts				-7.91e-05	-0.0692	0.0765**
				(8.23e-05)	(0.0907)	(0.0301)
Constant	0.0158***	1.574	2.222**	-0.0229*	6.025	4.973
	(0.00494)	(1.697)	(0.890)	(0.0134)	(11.49)	(3.939)
Observations	101	99	101	96	94	96
Number of groups	16	16	16	15	15	15
Hansenp	1	0.840	0.833	1	0.962	1
AR(1)	0.088	0.089	0.034	0.066	0.089	0.036
AR(2)	0.389	0.794	0.998	0.393	0.798	0.775

Source: Author through STATA

From our results shown above, illicit financial flows still exert a negative effect on welfare in Africa captured through the HDI under autocracy while the effects of IFF on other measures of welfare prove to be inconclusive. Mineral rent, oil rent, growth and external debts exert a positive influence while ICT is consistent with a negative influence.

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Table 5: effects of IFF on welfare under democracy

	Democracy	Democracy	Democracy	Democracy	Democracy	Democracy	Democracy
VARIABLE	HDI	Education	Electricity	Water	HDI	Education	Electricity
L.HDI	0.990***				0.981***		
	(0.00629)				(0.0175)		
L_Education		0.986***				0.763***	
		(0.0198)				(0.0831)	
L_Electricity			0.950***				0.915***
			(0.0304)				(0.0523)
L_Water				0.958***			
				(0.0106)			
IFF	-0.000126	-0.0519	-0.0246	-0.0211**	-7.95e-05	-0.270**	0.109
	(0.000178)	(0.0422)	(0.0810)	(0.00954)	(0.000161)	(0.131)	(0.0717)
APD					0.000134	-0.122	-0.152
					(0.000157)	(0.310)	(0.131)
Oilrent					-0.000107	0.176	0.141
					(0.000329)	(0.284)	(0.128)
Mineralrent					-0.000266	-0.541**	0.0747
					(0.000247)	(0.212)	(0.149)
Corruption					0.00381*	-7.071	1.550
					(0.00203)	(5.294)	(1.962)
Growth					0.000529***	-0.0534	0.0743
					(0.000118)	(0.140)	(0.0847)
ICT					0.000529	0.379	-0.136
					(0.000398)	(0.310)	(0.230)

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

FDIinflow					-0.000236	-0.380**	-0.0467
					(0.000166)	(0.161)	(0.117)
Shadow					0.000429**	-0.541***	-0.109
					(0.000183)	(0.202)	(0.106)
Tradeopen					0.000150*	0.0738	-0.0753**
					(8.69e-05)	(0.0852)	(0.0364)
Externaldebt					-6.39e-05	-0.00427	0.0144
					(7.90e-05)	(0.0747)	(0.0447)
Constant	0.0152**	3.772***	3.924	3.919***	-0.00613	31.51**	12.72
	(0.00610)	(1.300)	(2.896)	(0.829)	(0.0133)	(13.86)	(7.774)
Observation	206	206	206	176	192	192	192
Number of groups	31	31	31	26	29	29	29
Hansenp	1.000	1	1.000	0.592	1.000	0.743	1
AR(1)	0.044	0.013	0.001	0.070	0.004	0.009	0.000
AR(2)	0.276	0.230	0.812	0.724	0.806	0.238	0.555

Source: Source: Author through STATA

Note: Robust standard errors are reported in bracket (***, **, *) indicate the statistical significance at 1%, 5% and 10% respectively.

In the case of democracy, the effects of IFF financial flows on HDI becomes insignificant though still negative in most cases except for access to drinking water and secondary school enrolment which remains negative and significant. Mineral rent and trade openness are consistent with exerting a negative effect while the underground economy is seen to exert a positive effect on secondary school enrolment

Conclusion

The debate about the existence and effects of illicit financial flows from Africa remains very current in economics literature. These flows exist though the exact magnitude of the flows cannot

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

be precise given its hidden nature and lack of terminology clarity. However, emphasis must be laid on the negative effects it exerts on these developing countries in terms of growth, development and welfare in order to develop appropriate policy options to curb them. In this light, this study investigated the effects of IFF on social welfare of African countries using the Human Development Indicator as well as other indicators to proxy welfare. This study therefore adds to the determinants of social welfare in Africa focusing on the role played by IFF.

To verify the hypothesis according to which IFF affects welfare, we use a sample of 41 African countries over a period of 10years from 2008 to 2017. We employ the General Method of Moments to carry out our econometric analysis. Our results support the hypothesis that IFF exerts a negative effect of welfare. In order words, IFF reduces the level of human development in SSA. As a matter of fact, a 1% increase in IFF leads to a 0.0014% fall in social welfare captured by the Human Development Index. IFF equally reduces social welfare by limiting access to basic amenities like education, electricity, drinking water etc. This is explained by the fact that resources which are to be used in the improvement of social welfare through the provision of basic amenities are being siphoned out of the country to financial heavens. As a result, it will take Africa a longer time to achieve the welfare levels targeted in the United Nations Sustainable Development Goals given the erosive nature of IFF. A reduction in the amount of funds leaving the continent via IFF will therefore go a long way to increase the welfare standards of African countries.

REFERENCES

Alstadsæter, Johannesen and Zucman (2017): Tax Evasion and Inequality Published in American Economic Association volume 109, issue 6, pages 2073-2103

Amah Kalu Ogbonnaya & Okezie Stella Ogechuckwu, (2017): "Impact of Illicit Financial Flow on Economic growth and development: RePEc:mgs:ijoied:v:3:y:2017:i:4:p:19-33

Anggraeni, Palupi (2019): 'Natural resources and economic welfare – A disaggregated panel data analysis including institutional quality, foreign direct investment and industry value added', Vancouver, Canada, 17–19 January.

Anggraeni, P., Daniels, P. and Davey, P. (2022): 'Improving the benefit of natural resources endowment to economic welfare in Indonesia: A mixed method analyses. International Journal on Advanced Science, Engineering and Information Technology

Belzas Belity (2022): The welfare effects of FDI: A quantitative analysis; Journal of Comparative Economics Volume 50, Issue 1, March 2022, Pages 293-320

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Ben Craig and Guillaume Rocheteau (2006): Inflation and Welfare: A Search Approach; policy discussion papers Federal Reserve Bank of Cleveland

Clem Tisdell **(2017):** Information technology's impacts on productivity and welfare: a review; International Journal of Social Economics ISSN: 0306-8293

Cobham, A, and Janský, P. (2017a): Global distribution of revenue loss from tax avoidance Re-estimation and country results. UNU-WIDER, UNU-WIDER: Working Paper (55).

Cobham, A, &Janský, P. (2017b): Measuring Misalignment: the Location of US Multinationals' Economic Activity versus the Location of their Profits; Development Policy Review

Dev Kar, Brian LeBlanc (2013); Illicit Financial Flows from Developing Countries: 2002-2011; Global financial integrity

Geda and Yimer, (2016); Capital flight and its determinants: the case of Ethiopia. African Development Review, 28, 39-49

Hendriyetty and Grewal (2017); Macro-economic effects of money laundering: effects and measurement/journal of financial crimes 24(1):65-81

Isaac kwesi Ampah and Gabor David kiss (2021); Welfare implications of external debt and capital flight in Sub-Saharan Africa (Evidence using panel data modelling) Acta Oeconomica 71: 2 pp. 3

Joko Mariyono (2012); corruption and welfare; a simple econometric across country analysis; Economic Journal of Emerging markets

Kar and Cartwright-Smith, (2009): Illicit financial flows from developing countries: 2002–2006. Available at DOI:10.2139/ssrn.1341946

Kar, D. Schjelderup, G. Salomon, M. Baker, R. (2015); Financial Flows and Tax Havens: Combining to Limit the Lives of Billions of People. Global Financial Integrity and Norweg47-367., 21 p. (2021)

Khaibat Magomedtagirovna Musaev (2017); impact of the shadow activity on social and economic relationships, income level and welfare of the population; social behavior research and practice; http://dx.doi.org/10.17140/sbrpoj-2-109

ISSN: 2455-8834

Volume:08, Issue:10 "October 2023"

Lambsdorff, Johann, (2001): "How corruption in government affects public welfare: A review of theory," University of Göttingen Working Papers in Economics 9, University of Goettingen, Department of Economics

Landry Signé, Mariama Sow, and Payce Madden, (2020); Illicit financial flows from Africa: drivers, destination and policy options; African Growth Initiative_Brookings

Liana Donath, Anca Brad (2017): Selected determinants on welfare enhancement. A theoretical and empirical view, academia

Maku, Olukayode Emmanuel &Ajike, Emmanuel O (2015); **"**The Impact of Capital and Financial Flows on Human Welfare in Sub-Saharan Africa" Global Journal of Management and Business Research: B Economics and Commerce Volume 15 Issue 9 Version 1.0

Ndikumana, J.K. Boyce(2011); Capital flight from sub-Saharan Africa: linkages with external borrowing and policy optionsInt. Rev. Appl. Econ., 25 (2) pp. 149170

O'Hare BA et AL (2016): "The effect of illicit financial flows on time to reach the fourth Millennium Development Goal in Sub-Saharan Africa: a quantitative analysis"

Purnamita Dasgupta et al (2018); Economic Growth, Human Development, and Welfare from Socio-Economic Transformations; Published online by Cambridge University Press

Sabina Alkire et al (2016): multidimensional poverty measurement and analysis, New York, Oxford University press, 2015 XI-356p.

Sharma, B., et Gani, A., (2004): The Effects of Foreign Direct Investment on Human Development», Global Economy Journal, 4 (2), 1-20.

Shutao Cao, Césaire A. Meh, José-Víctor Ríos-Rull and YazTerajima (2018): The Welfare Cost of Inflation Revisited: The Role of Financial Innovation and Household Heterogeneity; Bank of Canada Staff Working Paper 2018-40

Yikona, Slot, Geller, Hansen and elKadiri (2011); ill-gotten Money and the Economy; measuring the impact of dirty money of economic development in Malawi and Namibia | World Bank Studies

