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Do Remittances Stimulate Private Sector Investment? A Case of Sub-Saharan Africa

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Abstract
Private sector investment is vital for economic growth, human capital development, poverty reduction and job creation. Private sector investment depends on an efficient financial sector and public investments. In Sub-Saharan Africa credit constraints is the key hindrance to private sector investment. Fortunately, remittances sent across countries have increased tremendously with the developing countries receiving the largest share. The aim of the study was to determine whether remittances can stimulate private sector investment through lessening credit constraints facing households. The study targeted fifteen Sub-Saharan Africa countries for the period between 1982 and 2012. Data was collected from World Bank databases and analysed through a fixed effect regression. The study found that remittances had a positive and significant effect of private sector investment. The Study recommends; households should substitute bank credit for remittances, African governments should create a regulatory regime that allows for the free transfer and receipts of foreign remittance and the need for financial intermediation.
Keywords: Remittances, private sector investments, accelerator theory, fixed effect regression, Sub-Saharan Africa.

1. Introduction

This journal aims at shedding more light on the impact of remittances on private sector investment in migrants' home countries. Private sector investments encompasses small and medium enterprises, companies and any other form of businesses owned by individual citizens of a country. The term "Private sector investments" means the gross contribution by the private sector, profit private and non-profit agencies, to a country's fixed domestic assets, World Bank (2013). Private sector investments is essential for sustained economic growth and it's complementary to public sector investments (Levine & Renelt, 1992). A study by Haroon and Nasr (2011) in Pakistan covering the period 1986 to 2008 show that private sector investments contribute positively to job creation, foreign direct investment, economic growth, poverty reduction and improved per capita income. The major determinants of private sector investments include; public sector investment on infrastructure, Fredriken and Looney (1997); Rashid (2006) and Oshikoyo (1994); Beck & Demirgüç-Kunt (2006), USAID (2007), Lika et al (2010) and IFC & McKinsey & Company (2010); GDP growth rate, households' income, balance of payment and inflation rate Valadkhan (2004) and Rinluhart and Khan (1990). The major theoretical work on private sector investments is by John Maynard Keynes in his theory titled, "The General Theory of Employment Interest and Money" (1936). Keynes' theory symbolizes a traditional view of the determinant of public and private sector investment. Keynes' theory argues that a country's aggregate demand is the main determinant of investment. A high aggregate demand for goods and services call for additional investment in production to match the high demand. On the other hand a low aggregate demand will be neutralized by a controlled production subsequently a reduction in public and private sector investment until an equilibrium level of employment and output has been achieved. Keynes' second proposition show that every durable commodity has rate of interest(return) therefore an investment will only take place if the marginal efficiency (rate of return) of some asset that can be produced using labour (plant, capital equipment, commercial and residential buildings, private infrastructure) exceeds the marginal efficiency on money (interest rate). This proposition is commonly referred to as the opportunity cost of capital. Another approach to private sector investment is Jorgensen's "accelerator theory of investment (1963)". This theory affirms the existence of a positive relationship between investments and the level of output. According to this theory, investors are attracted by the gap between capital invested and the desired level of output. An increase in aggregate demand for consumer product fuels supply for the sake of market equilibrium and investors responds to the shift in supply by expanding their production capacity. This expansion is a capital expenditure on either modernization of the facility or acquisition of additional plant or both. Keynes and Jorgensen's theories are premised on the existence of perfect market characterized by; absence of liquidity constraints, no market participants with absolute powers, no barriers to entry, non-intervention by government and equal access to factors of production. Ideally perfect market conditions don't exist in modern economies. Modern investment decisions are made in-light of market imperfections hence the need for financial intermediation. Schumpeter (1932) identifies financial institutions as an arbitrator for technological advancement. Keynes (1936) shows that credit (liquid liabilities) mediates investment while Gurley and Shaw (1973) concluded that without financial intermediation, the effect of self-

financing on economic growth is trivial.

2. Remittances

Remittances refers *to money, it's equivalents or something of values sent by individuals living or working outside their countries of birth to their home country for the purpose of consumption by migrant family or direct investments by the migrant*. Remittances can be in the form of; migrants' salaries and wages earned in the host countries, current transfers by migrants who are considered residents of the foreign country or capital transfers that result from the correspondence between the migrants and their households for instance the flow of goods. These foreign capital flows have a significant impact on both the host and home country macro-economic variables. A study by Aggarwal, *et al.* (2010) on a sample of 109 developing countries between 1975-2007 show that 1% growth in remittances initiates a 0.36% increase in bank deposits and 0.29% increase in credit to private sector. Brown and Carmignani's (2011) study in Azerbaijan and Kyrgyzstan on the other hand predict that $1,000 growth in remittances has a marginal propensity to open a bank account of 0.1.The economic significance of remittances can be explained through a macroeconomic and microeconomic inquiry. Microeconomic analysis centre on the impact of remittances on the receiving households consumption behaviours and lifestyle. Micro economists observe that remittances supplements household's income. The argument in favour of this approach is that remittances are an incentive for more consumption, education and entrepreneurial undertakings. Contrary, macro-economic analysis focuses on the long run impact on the macro-economic indicators such as job creation, exchange rates, economic growth and eradication of poverty. However, the socio-economic importance of remittance depends on whether remittances are used for consumption or investment purposes (Rapoport, 2005). Durand (1996) argues that remittances influence a country's economy directly by way of investment or indirectly through the multiplier effect of consumption which elicits investments in production to meet the demand upsurge.

3. Motives of sending remittances

Several theories explain why migrants send remittances back home. These theories are grounded on family economics and portfolio management. Family economics assumes that migrants sends remittances to the household for consumption purposes specifically during adverse economic conditions. Migrant send money to their households as they value the welfare of their families. Funkhouser (1995) argue that the amount of remittances depends on migrant's level of income and attachment with the family. Migrants with higher income have a high propensity to remit than migrants with lower income. Remittances will increase with an increment in income and as the social ties between the migrant and his household strengthens. A migrant's family characteristics determine the frequency and the amount of remittances to be sent for instance, the income level and the number of dependent siblings in the household will influence the migrant's decision on the amount of money to send home. Other determinants of the amount of remittance include; the number of migrant workers per household; as more members of the same household migrate, the migrant will be relieved the burden of supporting his household single-handedly since this responsibility will be shared by all the migrants. However, a study by Aggarwal and Horowitz (2002) on the effect of 'many migrants' on the level of remittances shows divergent effects from those of a 'one migrant' model as used in many studies. This study maintains that under pure insurance intentions, the number of migrants in the same household would not affect the amount of remittances. The study further argues that under pure altruism, the existence of additional remitting migrants this will reduce the size of remittances. If the parents are approaching their final years the migrant is likely to send more; if the siblings are many the migrant send more to compete with the other sibling for inheritance. A study by Hoddinott (1994), on 215 households in Karateng, Western Kenya, found an additional acre of land condenses the incentive to migrate by 11%. The study further argue that as the age of the parents' progress, parent tends to be more reliant on financial support from their children, precisely, the migrants or those offspring on formal employment. Parents maximize his utility by enticing the migrant child through bequests of items such as land and livestock. Consequently, migrants will frequently send additional remittance if a large portion of the family assets has not been bequeathed since more remittances infers more inheritances. The inheritance motive is strengthened by Lucas and Stark (1985) who maintain that sons tend to remit more than daughters. The existence of a credit agreement between the migrant and the household could be another reason for remitting. Migrants remit to reimburse the family for resources spent on education and travelling to the host country. Migrants start to remit home as soon as they down in the host country, Whitelaw (1974) and Poirine (1997). Members of a household can also migrate as a risk management technique. Risk management technique is premised on rural households in a developing country which are characterized by; unstable income, overreliance on subsistence farming, unsophisticated technology, land gradually becoming unproductive and lack of credit. Households view that foreign and urban employments are stable and unaffected by perils common to rural household such as crop failure and animal diseases. Migration therefore shields the household from geographical risk. Migrants send more if the households are undergoing economic problems such as deterioration of income, (Stark & Lucas,

1989; Rosenzweig & Stark, 1989). There are few incentives to remit when the income level of the household is stable. Income elasticity is the major determinant of the co-insurance agreement, Coax and Jimenez (1998. Studies by Fuller, Kamnuansilpa and Lightfoot (1990) in Philippines and Hoddinott (1994) in Kenya, that sought to explain the risk management motive of remittances, found the age of the migrant as the major determinant of the volume of remittance. The age of the migrant is positively correlated to remittances up to a certain age after which the relationship smoothen out. Unemployment subjects the family to credit constraint which further explains the risk management theory. Amuedo-Dorantes and Pozo (2006) observe that migrants are risk averse and remit more when their incomes are at a risk specifically if the host country is politically and economically unstable. Amuedo-Dorantes and Pozo (2006) suggest that illegal migrants remit 3% higher than legal migrants. However, for this strategy to succeed, there is the need for a high degree of self-sacrifice where failure to remit would amount to unstable family ties and the ultimate imposition of other types of sanctions, such as denial to inherit by the household (Docquier & Rapoport, 2005). A study by Dalen, *et al*. (2005) in Egypt, Morocco and Turkey found over 2/3 of households in the three countries receive remittances, 75-90% of the Remittances are spent on food, clothing and housing which emphasizing the altruistic nature of remittances. Wahba (1991) splits Remittances into two components; permanent remittances and optional remittances. Permanent remittances are meant for consumption hence dependent on size and income of the household. Optional remittances are meant for investment. These optional capital flows depends on the determinants of investments; interest rates, inflation rate, differential between host and home country and the extent the migrant is conversant with the investment climate in the two countries. Migrants are interested in owning property such as livestock back home and this is a possible reason for remitting Ahlburg & Brown (1998) and Secondo (1997). Amuedo-Dorantes and Susan (2010) put forward that migrants' decisions to remit are not exclusively altruistic for the reason that migrants would invest their savings at home in preparation for their return. On receipt of these remittances household would invest these transfers on capital-intensive agriculture Stark's (1980). Similarly, Oberari's (2008) study in Indian Punjab found that 75% of Remittances are used for consumption while approximately 6.1% are spent on private sector investments. Studies by Yang (2004); Lupaz and Seligoson (1991); Amuedo and Dorantes (2003) cite the importance of remittances to entrepreneurial activities and new venture creation

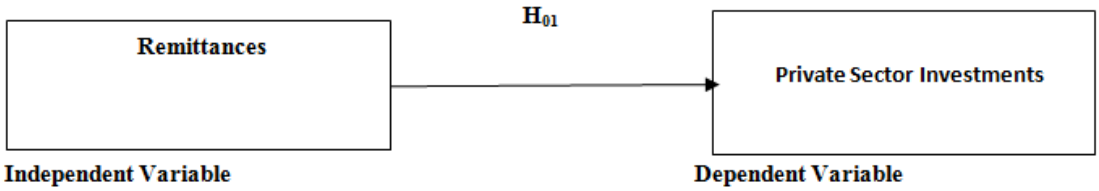
4. Hypotheses

Private sector investment is central to job creation, foreign direct investment, economic growth, poverty reduction and per capita income. A study by African Development Bank Group (2012) between 2008 and 2012 found that the private sector contributed 2/3 of the total investment, ¾ of the total credit, 90% of all employment and 70% of SSA Gross Domestic Product. Owing to its significance to socio- economic development studies are now focusing on the key determinants of private sector investment. The private sector in Sub Saharan Africa face multiple challenges such as lack of credit, poor infrastructure and unpredictable investment environment IFC (2011). Several studies confirm that access to seed capital remain a major challenge to private sector investment owing to conservative lending standards to SMEs. Beck & Demirgüç-Kunt (2006), USAID (2007), Lika et al (2010) and IFC & McKinsey & Company (2010). Fortunately, there is a growing importance of remittances in Sub Saharan Africa as an external capital flow regarded as stable and compensatory. ***The objective of the study was to determine the effect of remittances on private sector investment. The study hypothesize that remittances have an incremental impact on private sector investment.***

5. Theoretical consideration

This section explores the accelerator theory. This theory illuminates on the combined effect of Remittances and financial sector development on private sector investments. The accelerator theory explains the connection between aggregate demand and capital investment. The theory argues that an increase or decrease in the demand for consumer goods will cause a greater increase or decrease in the demand for machines required to make those goods. In other words, there is a direct relationship between the rate of output of an economy and the level of investment in capital goods, Ayeni (2014). An increment in aggregate demand for output necessitates additional investments which are depends on the availability of financial resources. The responsiveness of private sector investments to the increased demand for output by way of investments is visible in countries that enjoy solid and efficient financial institutions. Unfortunately, developing countries are characterized underdeveloped financial institutions confirmed by credit constraints and high interest rate. Fortunately on the positive side African countries and other developing countries enjoy relatively huge amounts of Remittances flow which can be used to ease credit constraints.

The research had one dependent variable (Private sector investments) and one independent variable (Remittances). The study controlled for the determinants of private sector investment namely; governance, economic growth, dependency ratio, trade openness, lending rate, exchange rate and private direct foreign investment. The relationship among the key research variables is depicted in the model below.



Conceptual Framework

6. Measurement of variables

Private sector investments is the share of a countries capital formation attributed to private citizens or the value of a country's total assets owned by its citizens. The data on private sector investments is taken from IMF's International Financial Statistics databases and the World Bank Development Indicator and standardized as a ratio of GDP (Gross fixed capital formation private sector % of GDP), Snyder (1996). Remittances are taken as the figure given by the World Bank Indicator. The variable is standardized as a ratio of GDP (Remittances/GDP). The purpose of the quotient is to control for the variation in size of the countries under study. The size of the country determines the amount of remittances, number of migrants and the volume of investments. A set of control variables were used to insulate the effect of the core variables. It was hypothesized that the diasporas will invest back home if the rate of economic growth is high and favourable. High economic growth stimulates the demand for products subsequently the private sector responds to this demand through additional investments. Economic growth was measured by Gross Domestic Product Growth (Aggarwal, *et al.* 2010; Bjuggren, *et al.* 2010). It's worth noting that institutions provide numerous opportunities and threats to investors. An open and just legal systems enhances investors' confidence and boost their socio-economic participation. The effectiveness of the legal systems was measured by GDP per capita income (Aggarwal, el al., 2010) and Worldwide Governance Indicator (WGI). Inflation affects two fundamental ingredients of private sector participation; real income and savings. Migrants remit more when inflation is higher in the host country relative to the home country in-order cushion their savings from erosion and vice versa. Inflation was measured by the annual average GDP implicit deflator (annual %). Since remittances are transnational they are affected by the prevailing exchange rate. Exchange rate affects an investor's preference for certain assets thus influencing his portfolio choice. The study used annual local currency/US$ (LCU US$) as the standard measure of exchange rates. Credit constraints hamper optimization of private sector investments. Credit constrain was controlled for by average lending rates (annual %). Trade openness encourages migrants to invest in their country of origin. Trade openness had a positive effect on private sector investments. Trade openness was measured by the sum of exports and import as a share of GDP (Bjuggren, *et al.*, 2010; Bettin & Zazzaro, 2011).

The study targeted fifteen Sub-Saharan Africa countries for the period between 1982 and 2012. The period has witnessed; an incredible outburst flow of remittances to Sub Saharan Africa, a relative economic and political stability which are prerequisites for private sector investments. In addition it allowed for smoothening of data across countries over time. Data was obtained from the Africa Development Indicator Database published by the World Bank. Private sector investments was the dependent variable of the study while remittances the explanatory variable. The study controlled for several macroeconomic variables namely; governance, interest rate, trade openness, economic growth, private foreign direct investment and exchange rate. Since the data was time series the research adopted a fixed effect panel regression model. This model helped to control for multicollinearity and serial correlation of research variables. The direct relationship between Remittances and private sector investments is shown by the following regression equation;

$$Y_{it}= \beta_o+\beta_1 X_{it} + \beta_4 X_{4it} +u_{it}+\eta_i+\varepsilon_i$$

Where; Y_{it} is Private sector investments i = entity and t= time; β_o (i=1…n) is the unknown intercept for each entity (n entity specific intercepts); X_{it} denotes remittances as the independent variable; β_1 is the beta coefficient of remittances; β_4 is a beta coefficient for control variables; X_{4it} denotes the control variables; u_{it} denote time specific effect; η_i denote unobserved country specific fixed effect and ε_i error term

7. Results of Correlation Analysis and Descriptive Statistics

The summary descriptive statistics for the variables in the main regression are presented in Table 6A. On average the private sector contributes 21.43% of the output of the countries under study. Remittances that were received by the Sub Saharan Africa countries accounted for 6.568% of the GDP. The results further shows that SSA countries face high dependency ratio of 83.16%, worsening exchange rate of 239.018 LCU per 1$US and weak legal institution as shown by the average score of -2.52. However Sub Saharan African countries enjoy to favourable net exports of 83.16. The output for the bivariate correlation between the research variables is shown

in Table 6B. The results confirm there a strong positive correlation between remittances and private sector investment which is statically significant at 1% as reported by (0.633**). Other variables that were found to be positively and significantly correlated with private sector investment include economic growth (0.222**), liquid liabilities (0.263**), governance (0.133**), private direct foreign investment (0.396**) and trade openness (0.540**). Ideally, a high economic growth rate, solid governance, trade openness and availability of credit attract more local investment and foreign direct investments.

Table 6A. Summary statistic for descriptive statistics for the research variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PSDV	465	3.48	76.69	21.4288	10.07635	2.137	.113	8.124	.226
REM	465	.00	96.94	6.5658	15.53536	3.834	.113	14.735	.226
GDP	465	-18.69	21.76	1.7006	4.63650	-.016	.113	2.954	.226
TOPN	465	6.32	209.41	77.4271	40.36864	.957	.113	.231	.226
DEPDEN	465	43.70	112.77	83.1616	13.56127	-.568	.113	.244	.226
GVN	465	-88.00	9.00	-2.5247	20.32176	-3.659	.113	11.973	.226
EXCH	465	.00	3978.09	239.0183	476.06636	4.276	.113	23.026	.226
LENDRT	465	.00	62.83	15.2432	7.22180	2.330	.113	9.643	.226
PFDI	465	-28.62	36.11	2.4329	4.78519	3.087	.113	22.957	.226
Valid N (listwise)	465								

Source: Researcher 2013

Table 6B Pairwise Correlations of research variables

		REM	PSDV	GDP	TOPN	DEPDEN	GVN	EXCH	LENDRT	PFDI
REM	Pearson Correlation	1	.633**	.007	.503**	.095*	-.013	-.153**	-.024	.195**
	Sig. (2-tailed)		.000	.877	.000	.041	.787	.001	.607	.000
PSDV	Pearson Correlation	.633**	1	.221**	.549**	-.014	.133**	-.212**	-.162**	.396**
	Sig. (2-tailed)	.000		.000	.000	.757	.004	.000	.000	.000
	Sig. (2-tailed)	.018	.462	.544	.004	.000	.018	.000	.000	.496
GDP	Pearson Correlation	.007	.221**	1	.131**	-.083	.122**	.021	-.176**	.108*
	Sig. (2-tailed)	.877	.000		.005	.073	.008	.659	.000	.019
TOPN	Pearson Correlation	.503**	.549**	.131**	1	.082	.043	-.092*	-.072	.378**
	Sig. (2-tailed)	.000	.000	.005		.076	.354	.047	.120	.000
DEPDEN	Pearson Correlation	.095*	-.014	-.083	.082	1	-.047	.037	.119*	-.099*
	Sig. (2-tailed)	.041	.757	.073	.076		.309	.428	.010	.034
GVN	Pearson Correlation	-.013	.133**	.122**	.043	-.047	1	-.105*	.002	-.090
	Sig. (2-tailed)	.787	.004	.008	.354	.309		.023	.971	.053
EXCH	Pearson Correlation	-.153**	-.212**	.021	-.092*	.037	-.105*	1	.187**	.077
	Sig. (2-tailed)	.001	.000	.659	.047	.428	.023		.000	.099
LENDRT	Pearson Correlation	-.024	-.162**	-.176**	-.072	.119*	.002	.187**	1	-.003
	Sig. (2-tailed)	.607	.000	.000	.120	.010	.971	.000		.956
PFDI	Pearson Correlation	.195**	.396**	.108*	.378**	-.099*	-.090	.077	-.003	1
	Sig. (2-tailed)	.000	.000	.019	.000	.034	.053	.099	.956	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher 2013

8. Effects of remittances on Private sector investment

The effect of remittances on private sector investment was tested through a fixed effect regression analysis and the regression output is shown in table 7. The regression results on the table show that there is a positive and statistically significant link between remittance and private sector investment; t (15) = 2.90, p=0.004, R^2= 0.4349 and β= 0.153 (5% level of confidence). These results are as good as to Balde's (2011) that show a positive and significant beta of 0.646. However the findings deviate from those of study Bjuggren *et al* (2010) that suggest a positive but insignificant effect of remittances on investment, β= 0.078 and t=0.055. This study found that remittances explain 43.49% variability in private sector investment which further emphasize the importance of remittances as an external source of finance as observed by Ratha (2003). Some of the control variable found to have a positive and statistically significant effect on private sector investment include; trade openness, private foreign direct investments, and governance. Ideally, remittances are expected to flow in an open economy with few cross country barriers. An enabling legal environment is a precondition for private sector participation. The model predicts that 1% improvement in institutional governance will attract an additional 3% private sector investment. High exchange rates inhibit private sector investment particularly in sub-Saharan countries that depend on the industrialized countries for expertise and market for their product. The study predicts that 1% appreciation in the value of the dollar relative to the local currency elicits a 0.07% decrease in private sector investment. Private foreign direct investments have the highest explanatory power in the model; t (15) = 5.41, p= 0.00 and β = 0.263. This further builds the argument on the important role of foreign capital transfers for economic development in developing countries.

Table 7. Estimated Relationship between Remittances and Private sector investment

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. xtreg PSDV REM GDP TOPN DEPDEN GVN EXCH LENDRT PFDI, fe

Fixed-effects (within) regression               Number of obs      =       465
Group variable: COUNTRY                         Number of groups   =        15

R-sq:  within  = 0.2391                         Obs per group: min =        31
       between = 0.5569                                        avg =      31.0
       overall = 0.4349                                        max =        31

                                                F(8,442)           =     17.36
corr(u_i, Xb)  = -0.1744                        Prob > F           =     0.0000
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PSDV	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
REM	.153171	.0527493	2.90	0.004	.0495004	.2568416
GDP	.2144223	.0637439	3.36	0.001	.0891436	.339701
TOPN	.1130812	.018817	6.01	0.000	.0760993	.1500632
DEPDEN	.1632123	.0302664	5.39	0.000	.1037284	.2226961
GVN	.0299711	.0139208	2.15	0.032	.0026119	.0573304
EXCH	-.0007527	.0008012	-0.94	0.348	-.0023273	.000822
LENDRT	.0151623	.0514683	0.29	0.768	-.0859907	.1163153
PFDI	.3497639	.0646915	5.41	0.000	.2226227	.4769051
_cons	-3.096549	3.144295	-0.98	0.325	-9.276175	3.083078
sigma_u	5.5681311					
sigma_e	5.5420824					
rho	.50234456	(fraction of variance due to u_i)				

F test that all u_i=0: F(14, 442) = 14.28 Prob > F = 0.0000

Source: **Researcher 2013**

The first objective of the study (H_{01}) was to determine whether remittances have any effect on private sector investment. The regression results of the main effect panel regression show that remittances have a positive and statistically significant effect on private sector investment, t(15)=2.61, p<0.02.` This study hypothesize that 1%

change in remittances results to 15.3% increase in private sector investment. The study therefore finds that remittances play a significant role in private sector investment in Sub-Saharan Africa.

9. Conclusion and recommendations

The empirical results confirm that remittances have a positive impact on private sector investment. These findings differ from the perceptions that remittances mainly meant for consumption. It was observed that remittances and other foreign capital flows such as FDIs and foreign aid were an important source of capital for private investors in Sub Saharan Africa. The study recommends that households which receive foreign remittance should take advantage of these transfers as a source of capital for investments purposes since remittances are cheap, stable and compensatory. African countries face huge balance of payment deficits coupled with low public investment and high unemployment. The study further recommend that African governments should find ways of channeling these remittances to development other than over relying on foreign aid and debts through; issuing of diaspora bond to its citizens in foreign countries that is, private-public partnerships and forming mutual funds where the migrants contributes in a pool gets shares and other securities back home. African governments can also appeal for direct investment by its citizens living abroad in sector such as; health care, education and other infrastructural development. Since foreign remittances flow in an environment of economic growth, favorable legal institution and trade openness, governments should ensure a favorable regulatory environment that attract and channel remittances into development

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Appendix I: Definition of Research Variables and the Source

Variable	Definition	Source
Gross fixed capital formation, private sector (% of GDP)	Private sector investment covers gross outlays by the private sector (including private nonprofit agencies) on additions to its fixed domestic assets.	World Bank 2012
Official exchange rate (LCU per US$, period average)	Official exchange rate refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the U.S. dollar).	IMF IFS 2012
Age dependency ratio (% of working-age population)	Age dependency ratio is the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64. Data are shown as the proportion of dependents per 100 working-age population.	World Bank 2012
Private foreign direct investment (% of GDP)	net, is net inflows of private sector investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital, as shown in the balance of payments	IMF 2012
Workers' remittances and compensation of employees, received (% of GDP)	Workers' remittances and compensation of employees comprise current transfers by migrant workers and wages and salaries earned by nonresident workers. Data are the sum of three items defined in the fifth edition of the IMF's Balance of Payments Manual: workers' remittances, compensation of employees, and migrants' transfers. Remittances are classified as current private transfers from migrant workers resident in the host country for more than a year, irrespective of their immigration status, to recipients in their country of origin. Migrants' transfers are defined as the net worth of migrants who are expected to remain in the host country for more than one year that is transferred from one country to another at the time of migration. Compensation of employees is the income of migrants who have lived in the host country for less than a year.	World Bank, IMF OECD 2012
Lending interest rate (%)	Lending interest rate is the rate charged by banks on loans to prime customers	IMF, IFS, UN 2012
Institutionalized democracy	Democracy is conceived as three essential, interdependent elements. One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles. We do not include coded data on civil liberties. The Democracy indicator is an additive eleven-point scale (0-10). This "institutional democracy" indicator follows a logic similar to that underlying the Polity I analyses. There is no "necessary condition" for characterizing a political system as democratic, rather democracy is treated as a variable. If the composite indicator of institutionalized democracy is inappropriate for some conceptual purposes, it can be easily redefined either by altering the constituent categories and weights, or by specifying some minimum preconditions. A mature and internally coherent democracy, for example, might be operationally defined as one in which (a) political participation is unrestricted, open, and fully competitive; (b) executive recruitment is elective, and (c)constraints on the chief executive are substantial	Center for Systemic Peace 2012
Exports of goods and services (% of GDP)	Short definition Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments	World Bank 2012
Imports of goods and services (% of GDP)	Long definition Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.	World Bank 2012

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