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WHAT DETERMINES PRIVATE INVESTMENT IN BURUNDI?

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ABSTRACT

The economy of Burundi is currently under life support and private investment is still in its embryonic stage, after a series of civil wars that have characterised Burundi's post – independence era. The political woes that Burundi continues to experience are one of the fundamental hindrances to private investment growth and development. Probably, this is the reason why most researchers, academicians and observers analyze the situation of Burundi only with political glasses; thereby undermining the role played by the economic structure. The perspective adopted in this study is quite different: the idea is to present a picture of Burundi from an economic point of view, partially leaving politics in the background and yet based on empirical evidence. This kind of approach does not imply that politics is unimportant! Our humble view is that politics is often constrained or even controlled, by economics! Private investment is the backbone of every economy and Burundi cannot be an exception. The study, while restricted to non – political determinants of private investment; seeks to uncover those factors that really matter to private investment, other than politics. Results indicate that population growth; exports and private sector credit are the most powerful factors that affect private investment in Burundi. The results provide a concrete justification for the policy recommendations suggested.

Key Words: *Private Investment, Public Investment, Private Sector Credit, Population growth, Burundi*

INTRODUCTION

Burundi is a “low opportunity” economy [22]. The country is relatively small when compared to most East African countries and yet it is overpopulated with at least 6 million people divided into 3 ethnic groups, namely; the Hutus, the Tutsis and the Twas. Burundi is essentially rural, with an urbanization rate of approximately 9%. The country's isolation within a geographically isolated continent [11], compounds the challenges to Burundi's investment growth. According to [24], private investment can be defined as “the privately owned part of the economy, that part of the free market economy which is made up of firms that are neither owned nor managed by the government”. Without private investment, there cannot be meaningful growth in Burundi. Policies currently being implemented in Burundi will never stimulate the country's “bed-ridden” economy unless they give private investment the attention it deserves.

Background of the study

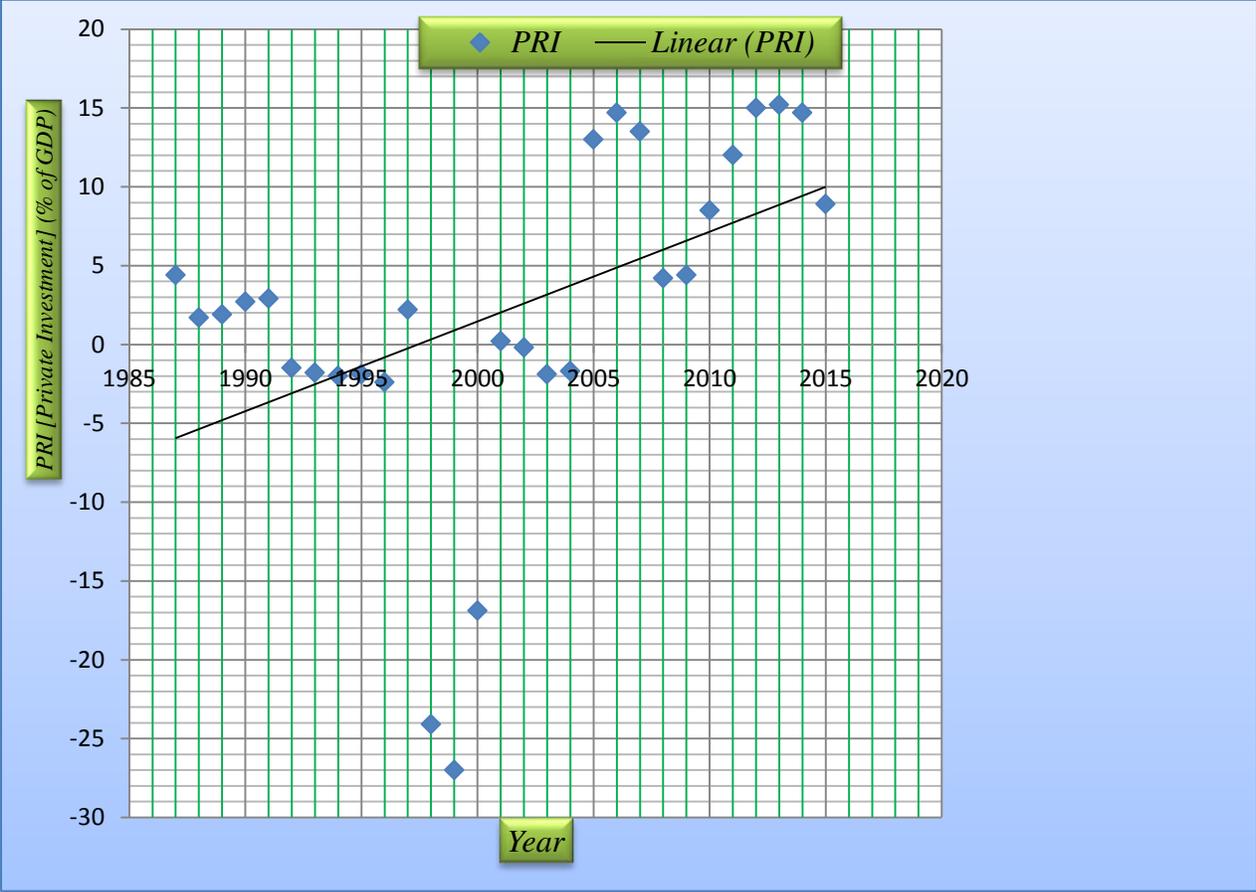
Overview of the economy and private investment in Burundi

In Burundi, the state is at the centre of economic activity. The ruling elite always ensure that their hold on political power guarantees them total control over the economy and its rents.

Burundi, just like any other developing country suffers from both rampant corruption and bad laws. The ruling elite use their power to selfishly squander national resources. According to [23], bad laws hamper investment and growth. The existence of rampant corruption in Burundi can be attributed to selective application of law and self – aggrandizement by the political elite. In Burundi, enforcement of law is mainly used as a strategy for furthering personal interests of the ruling elite at the expense of the broader public interest. In response to dubious and dystopian policies pursued by successive governments, households have retreated into subsistence economy while the modern private sector has remained rudimentary. Poor governance, according to [21], has suffocated individual expression in all forms; frustrating private initiative and leaving economic activity to a state machinery, ill equipped or unwilling to organize an efficient system of production.

Private investment trends in Burundi

The trends of private investment levels in Burundi from 1987 to 2015 are shown in **figure 1** below:



Source of data: World Bank (2018)

Figure 1

The period 1987 to 2015 can be described as a period of war and unprecedented economic crisis in Burundi. As shown in the graph above, private investment exhibits an encouraging and yet

“subdued”, upward trend. In 1987, private investment’s contribution to GDP was approximately 4.4%. This could be attributed to the 1986 structural reforms that were implemented in Burundi, although this is far away from the recommended minimum of at least 25% of GDP. 1988 was met by a bloody civil war that ensued due to preceding political tensions dating back to 1962 when Burundi attained her independence. War has devastating effects not only on the economy but also on the lives of the people. 12 years later, in 1999; at the height of social unrest and political instability in Burundi; private investment hit its all-time low of approximately -27% of GDP. This is a record breaking low, even by African standards! During this period, private investment was literally non-existent. This is the period during which the 1993 civil war erupted, after the assassination of Burundi’s first democratically elected president.

The worst performance of private investment in the year 1999 in Burundi could have been triggered by the deepening of the economic crisis that began in 1996 after a military coup spear-headed by Major Pierre Buyoya who had lost the 1993 elections. 8 years later, in 2007; private investment in Burundi rose to approximately 13.5% of GDP. This improvement in private investment could be partly attributed to the *Arusha Agreement for the Peace and the Reconciliation of Burundi* which was signed in the year 2000. Since then, private investment has not significantly increased, with the exception of the 3 years from 2011 up to 2013, where it hit an all-time high of approximately 15.2% of GDP. The above graph confirms the argument by [1]; that the private sector in Burundi is still in its embryonic stage.

Burundi continues to rebuild her economy after a series of bloody civil wars that lasted a total of nearly 17 years (that is, basically, over the period 1988 – 2005). Political stability and the end of the civil war have, at least; improved economic activity in Burundi, whose economy is predominantly based on agriculture which contributes approximately 36% of the country’s GDP. The private sector is still at its infantry stage. According to [1], there are 3000 registered companies, mostly small and medium sized, employing only 37 000 people. The growth of the private sector remains constrained due to a number of factors. Using a simple Ordinary Least Squares (OLS) model, this study seeks to uncover the determinants of private investment in Burundi over the period 1987 to 2015. The study will only focus on non-political determinants of private investment over the specified period.

Statement of the Problem

Private investment cannot be overlooked if Burundi’s economy is to be stimulated sustainably. It is a public secret that for Burundi to sustain economic growth, the country needs to maintain private investment at a sizable proportion of GDP, preferably higher than 25% as already proposed by [12], who emphasize on the fact that high growth countries usually invest in excess of 25% of GDP. Despite all the efforts made by the government of Burundi in order to resuscitate the private sector, private investment in Burundi has remained very low as shown in figure 1 above. Apparently, the major challenge facing Burundi is to come up with investor-friendly policies that would significantly help raise private investment, if sustainable economic growth is anything to go by. It is therefore imperative, to empirically analyze the determinants of private investment in order to advise both politicians and policy makers on how to successfully stimulate private investment in Burundi.

Objectives of the study

The main objective of this study is to find out the main determinants of private investment in Burundi. To achieve this objective the following specific objectives guided the study:

- i. To find out whether public investment affect private investment in Burundi
- ii. To investigate the impact of exports on private investment in Burundi
- iii. To determine whether population growth affect private investment in Burundi
- iv. To examine whether private sector credit affect private investment in Burundi
- v. To analyze the impact of current account deficits on private investment in Burundi
- vi. To assess the impact of aid on private investment in Burundi
- vii. To determine whether Gross Domestic Product (GDP or output)affect private investment in Burundi

MATERIALS & METHODS

Econometric Model

The research employed a simple Ordinary Least Squares (OLS) model, specified as below:

$$PRI_t = \beta_0 + \beta_1 POP_t + \beta_2 PLI_t + \beta_3 NODA_t + \beta_4 CAD_t + \beta_5 EX_t + \beta_6 Y_t + \beta_7 PSC_t + \beta_8 IR_t + \mu \dots\dots\dots [1]$$

Where,

PRI is domestic private investment measured as a percentage of GDP, POP is population growth measured in annual percentages, PLI is public investment measured as a percentage of GDP, NODA is aid proxied by net official development assistance, CAD is current account deficits measured as a percentage of GDP, EX is exports growth measured in percentages, Y is GDP growth measured in percentages, PSC is private sector credit as a percentage of GDP, IR is interest rates proxied by commercial lending rates, β_0 is the model constant, ($\beta_1 - \beta_8$) are the estimation parameters, μ is the error term and t represents the time dimension.

Data Sources

Data used in this study was gathered from the World Bank (WB) online database only. The study data spun from 1987 to 2015.

Diagnostic Tests

Multicollinearity Test (Correlation Matrix)

Table 1

	POP	PLI	NODA	CAD	EX	Y	PSC	IR
POP	1.000 000							
PLI	-0.091 172	1.000 000						
NODA	-0.281 362	-0.354 172	1.000 000					
CA	-0.554 040	-0.351 488	0.559 813	1.000 000				
EX	-0.093 039	0.077 389	-0.164 049	0.074 109	1.000 000			
Y	0.628 768	0.246 333	-0.316 126	-0.447 500	-0.056 863	1.000 000		
PSC	0.092 815	-0.050612	0.344 897	-0.124 423	-0.575 692	-0.037635	1.000 000	
IR	0.314 203	-0.280 162	0.509 980	0.097 260	-0.491 709	0.062 476	0.642 267	1.000 000

H₀: there is perfect multicollinearity

H₁: there is no perfect multicollinearity

Decision: We reject H₀ and conclude that there is no perfect multicollinearity because all the values in the correlation matrix are less than 0.8.

ARCH LM Test

Table 2

F-Statistic:	0.565063	Probability:	0.459536
Obs squared:	R* - 0.598071	Probability:	0.439315

H₀: there is autocorrelation

H₁: there is no autocorrelation

Decision: We reject H₀ since the p- value 0.459536 is insignificant; and conclude that there is no autocorrelation. These results complement the Durbin Watson statistic, which is 1.871277 (which is approximately equal to 2); implying that the model does not suffer from serial autocorrelation.

Misspecification Test (R² Test)

H₀: the model is not correctly specified

H₁: the model is correctly specified

Decision: We reject H₀ because R² is greater than 0.6, which is the rule of thumb; and conclude that our model has been correctly specified

Testing for the significance of the whole model (F-statistic Test)

H₀: the model is not significant

H₁: the model is significant

Decision: We reject H₀ since the F-statistic, 27.89126; has a probability of 0.000000, implying that there is no chance of rejecting the specified model. Thus the model is correctly specified and valid.

EMPIRICAL RESULTS: PRESENTATION, INTERPRETATION & DISCUSSION

Presentation of Descriptive Statistics

The following table shows descriptive statistics of the variables included in the model. The larger gap between the maximum and minimum implies the possible existence of outliers in the data, for example; aid (NODA). The relatively smaller gap in the rest of the variables indicates that there are no outliers in the data. Most variables (e.g NODA, EX, Y, PSC, PRI and PLI) are normally distributed as shown by their respective kurtosis statistics which are generally approximately equal to 3.

Descriptive Statistics

Table 3

	PRI	POP	PLI	NODA	CAD	EX	Y	PSC	IR
Mean									
Median	2.05	3.25	12.7	146.7	-5.45	8.1	3.5	14.5	14.25
Maximum	15.2	3.5	32.9	527.7	1	12.9	5.5	20.1	19.5
Minimum	-27	1.4	3.9	58	-16.1	4.7	-8	4.2	12
Std. Dev.	10.45972	0.766175	6.982836	141.4913	4.717034	1.974557	4.147472	3.96356	2.305718
Skewness	-1.137501	-0.683215	1.117401	1.038702	-0.459658	0.384601	-1.003421	-0.70392	0.438359
Kurtosis	4.394163	1.878692	4.215313	2.684561	2.271436	3.014796	2.822219	3.101312	2.06685
Jarque-Bera	8.305875	3.645205	7.549884	5.150959	1.605272	0.690538	4.735523	2.324324	1.912639
Observations	28	28	28	28	28	28	28	28	28

Regression Model Results

Table 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-14.84310	8.149251	-1.821406	0.0843
POP	5.499411	1.647863	3.337298	0.0035
PLI	-1.074045	0.121287	-8.855422	0.00000
NODA	-0.029902	0.007405	-4.038212	0.0007
CAD	-0.477375	0.234593	-2.034913	0.0561
EX	1.376536	0.435533	3.160576	0.0051
Y	0.010820	0.230288	0.046984	0.9630
PSC	0.595985	0.267619	2.226993	0.0382
IR	-0.048839	0.533460	-0.091552	0.9280

$$PRI_t = -14.843 + 5.499POP_t - 1.074PLI_t - 0.029902NODA_t - 0.477CAD_t + 1.377EX_t + 0.012Y_t + 0.596PSC_t - 0.049IR_t + \mu_t \dots\dots\dots [2]$$

R – Squared: 0.92150

F – Statistic: 27.89126

Adjusted R – Squared: 0.88490

Prob (F – Statistic): 0.000000

Durbin Watson: 1.871277

Interpretation and discussion of regression results

Population growth (POP): The coefficient for population growth has a positive sign and is statistically significant at 1% level of significance. This implies that an increase in population growth in Burundi will lead to positive private investment growth. Apparently, a 1% increase in population growth in Burundi will lead to approximately 5.5% increase in private investment growth. These results are consistent with [2, 5, 25 & 33] and yet contrary to mainstream population growth theorists such as [18 & 32]. For Burundi, an increase in population growth implies more labour supply and presents an opportunity for private sector growth through industrialization.

Public Investment (PLI): The coefficient for public investment has a negative sign and is

statistically significant at 1% level of significance. This generally implies that an increase in public investment in Burundi will lead to a decrease in private sector growth. Apparently, a 1% increase in public investment in Burundi will lead to approximately 1.1% decrease in private investment. Although the results are contrary to both the “crowding-in effect” and the Keynesian theory of investment as well as many studies e.g [8, 15, 17, 27 & 30] amongst others; the results are however, consistent with a plethora of studies as well e.g [9, 10 & 34] who support the “crowding-out effect”. This means that in Burundi, public investment crowds-out private investment. In this case, according to [24]; the public sector competes for resources against the private sector and thereby reducing the money (resources) available for private investment.

Aid (NODA): The coefficient for aid is negative and statistically significant at 1% level of significance, implying that an increase in aid in Burundi will lead to a decrease in private investment. A 1% increase in aid will lead to approximately 0.03% decrease in private investment. These results support foreign aid skeptics such as [7, 16, 28 & 29] amongst others whose school of thought argues that foreign aid does not help poor countries to grow richer but instead, crowds-out both private sector investment and innovation and apparently leads to increased government corruption and rent-seeking, undermining both economic and political development, enabling governments to remain unaccountable to their citizens, encouraging over-dependency on donors and thereby effectively reducing incentives for recipient countries to adopt to good policies. In countries such as Burundi where leadership has a well-known record of catastrophic governance, foreign aid rarely works. According to [26] aid should be there to close those gaps that exist as a result of lack of domestic resources, not as a result of poor governance, greed and so forth. Foreign aid also has the potential of creating foreign exchange appreciation and thus affecting the competitiveness of domestic private investment. However, when aid is properly used, it can actually promote private investment as already argued by several aid optimists e.g [3, 4 & 31] amongst others. For example, aid in the form of Official Development Assistance may be used to complement other sources of financing required for development especially in countries like Burundi where private investors are reluctant to invest with the fear of low profit.

Current Account Deficits (CAD): The coefficient for current account deficits is negative and significant at 5% level of significance. This implies that an increase in current account deficits in Burundi leads to a decrease in private investment. In fact, a 1% increase in current account deficits leads to approximately 0.5% decrease in private sector growth. These results are acceptable because current account deficits complicate domestic demand management policies, making it virtually impossible for policy makers to reasonably manage the economy; thereby frustrating investors. For example, [19] argue that pursuing a tight monetary policy in order to dampen demand pressures; can be in vain, because it can create supply bottlenecks by complicating investment and fuelling inflationary pressures. Therefore, current account deficits, as also highlighted in [19], have the potential to complicate the whole process of macroeconomic policy making.

Exports (EX): The coefficient for exports is positive and statistically significant at 1% level of significance. This implies that when there is an increase in exports in Burundi, there will be private sector growth. Apparently, a 1% increase in exports in Burundi will lead to approximately 1.2% increase in private investment. Exports enable investors in Burundi to earn foreign exchange which they can use to import those items which are relatively scarce in their

production activities and hence improve their efficiency. According to [13], Burundi's primary exports are coffee and tea, which account for 70% of foreign exchange earnings; though exports are a relatively small share of GDP. The government of Burundi must pursue export diversification, especially in areas such as tropical fruit, vegetables, cut flowers, exotic plants, essential oils, mineral products as well as tourism. It is important to note that rehabilitation and reform in these "export zones" is a matter that should be taken seriously. This can be done by immediately withdrawing the state from economic activities in these sectors through privatization.

Private Sector Credit (PSC): The coefficient for private sector credit is positive and statistically significant at 1% level of significance. This generally implies that an increase in private sector credit in Burundi will lead to an increase in private sector investment. Specifically, a 1% increase in private sector credit in Burundi will lead to approximately 0.6% increase in private investment. Our results are consistent with mainstream economic theorists e.g [6, 14 & 27] amongst others who maintain the proposition that private sector credit is essential for investment. Changes in the volume of bank credit to the private sector, as noted by [20 & 27]; are suggested to have a positive impact on investment activity among developing countries.

RECOMMENDATIONS

The study recommends the following:

- i. Based on the negative impact of public investment on private investment in Burundi, the government of Burundi should move away from its tendency of "squandering" resources on non-infrastructure projects. Successive governments ought to focus on building the nation and promoting peace and stability rather than devoting their efforts on military endeavors. When public investment is highly concentrated on infrastructure projects, it is likely to be complementary to private investment in the sense that infrastructure projects such as road networks construction, building of schools and hospitals as well as telecommunication networks; promote private sector development and expansion.
- ii. The government of Burundi should put in place measures to encourage population growth because at the moment population growth in Burundi is not posing any threat as far as domestic private sector growth is concerned. Such measures may include discouraging "continuous" use of contraceptives, especially for the married couples as well as improving health service delivery to address both maternal and crude death rates.
- iii. The government of Burundi should offer incentives to exporters in order to enhance export-led private sector growth.

CONCLUSION

Private investment is essential for innovation, economic growth and poverty reduction. Countries with significantly deeper private sector investments are normally characterised by higher growth. Therefore, the importance of private investment to Burundi is not questionable; and the government of Burundi cannot afford to turn a blind eye on private investment in its strategic policy mapping processes. The main objective of this study was to analyze the determinants of private investment in Burundi.

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