

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY: APPLIED BUSINESS AND EDUCATION RESEARCH

2021, Vol. 2, No. 8, 613 – 625

<http://dx.doi.org/10.11594/ijmaber.02.08.01>

Research Article

Private Investment and Economic Growth in Cameroon

Yaoudey Dabal Nina*

University of Maroua, Cameroon

Article history:

Submission August 2021

Revised August 2021

Accepted August 2021

*Corresponding author:

E-mail:

yaoudeynina@gmail.com

ABSTRACT

The public authorities, in agreement with the private sector, are looking for the optimal solution that would enable the national economy to be more competitive in order to emerge by 2035. Indeed, one of the solutions lies in the country's ability to make private investment the growth factor. It is with this in mind that the purpose of this work is to analyze the effects of private investment on economic growth in Cameroon according to the nature of the transmission channel. To achieve this, we presented the concepts of the study as well as the literature on the relationship between them. Then we proceeded to empirical verification of the relationship between private investment and economic growth. A multiple linear regression model allowed us to relate these two concepts. Using the ordinary least squares (OLS) method in time series over the period 1990-2016, it appears that private investment has a positive influence on economic growth in Cameroon through the direct and indirect transmission channel.

Keywords: *private investment, economic growth and transmission channel.*

Introduction

The objectives of growth are sought by all developed countries as well as those in the process of development, following the example of Cameroon. Among the levels of economic growth, the emphasis is more on private investment according to the transmission channel. In such a context, it is not surprising that private investment takes a leading role in the development of cost-effective policies at the microeconomic and macroeconomic levels. Thus, the debate on the contribution of private investment to economic growth in Africa countries is an ongoing one in the economic literature. In Cameroon, this debate is accentuated when it comes

to attracting and retaining domestic and foreign private investment in the country.

In fact, private investment is any form of investment that does not involve the government. It includes domestic and foreign direct investment. The situation is such that this type of investment, in recent years, has had a clear evolution on national accounts data, the level of private investment in Cameroon is up 26.3% in 2019 compared to the same period in 2018. This increase, together with gross fixed capital formation contributed 1.2 percent to GDP growth. Similarly, it contributes 2.2 percent to GDP growth. As a result, private investment is

How to cite:

Nina, Y. D. (2021). Private Investment and Economic Growth in Cameroon. *International Journal of Multidisciplinary: Applied Business and Education Research*. 2 (8), 613 – 625 doi: 10.11594/ijmaber.02.08.01

estimated at CFAF 930.5 billion against CFAF 133.5 billion of public investment (INS, 2019). However, in 2018, there was an increase in total investment of 14.4% due to the increase in private investment of 8.5%. Thus, private investment drives growth, an increase of 1.7% to GDP growth. This performance is due to the increase in imports of capital goods and transport (INS, 2018). The year 2017 on the other hand will be marked by an increase in private investment of 6.7% after 2.3% in 2016. That is to say a contribution of 1.4 point against 0.5 point in 2016. This increase will be the work of the application of the law on investment incentives of 2013 (INS, 2017).

However, during the period 1977-1986, Cameroon recorded an average real GDP growth ratio of 7.6 percent. This was due to a high investment rate of 33% of GDP in 1985, averaging 2.9% from 1977 to 1986. However, Cameroon has experienced periods of economic crisis corresponding to a low investment rate rises (Touna Mama, 2008). The new industrial policy focused on the convergence of public enterprise to private enterprise, was marked in the 1980s (Touna Mama, 2008).

After the advent of liberalism as an economic doctrine in several developing countries and the implementation of the structural adjustment program, investments are particularly dependent on productive capital expenditures by the private sector. In Cameroon, exploration of the determinant of private investment shows that the pace of private sector capital accumulation appears to have been determined mainly, in the short run, by transitory factors, by output and by shocks in the level of demand. Controlling for other variables, in the analysis points to a displacement effect arising from government investment decisions, competing for resources that could have been used by the private sector. It is worth noting that China's current economic performance is due to an investment rate of nearly 50%, which is growing at a rate of over 30.5%. This country, for a growth rate of more than 10%, doubles its GDP every eight years. In Cameroon, there is a unidirectional relationship between private investment and economic growth (Ngouhou and Mouchili, 2014).

Moreover, the attitude of investment, the main factor of economic development in all developing countries, has long been of obvious interest to economists and policy makers. However, the prevailing relationship between the business environment and the success of firms justifies the challenge that must be taken up by the authorities so that by 2035 Cameroon reaches its goal of an emerging country, although the business climate in Cameroon continues to suffer from a heavy and complex institutional and regulatory environment, ranking 166th out of 190 countries, according to the 2019 Doing Business ranking.

The trend of private investment in Cameroon, the multiple projects launched by the government and their clear state of progress, shows sufficiently that the development by private companies seems to be supported. The productive side is thus inscribed by the preponderance of very small and small enterprises that symbolize 98.5% of all firms. The medium and large companies, as for them symbolize respectively 1.3% and 0.2%. in addition, medium and large enterprises which execute more than 94% of the national turnover of the private sector use less than 52% of the wealth in the private sector. It can be deduced that investment is growing. The latter depends, in fact, on the growth of physical capital, labor and science. It is all the more easy as the private agents can attribute to themselves the fruit of their efforts, implying that the public levies are weak. In addition, the appeal to foreign and national investors has allowed the appearance of modern enterprises in various sectors such as hydrocarbons, beverages or banking. Nevertheless, the authorities have insisted that as far as possible local interests and the state through the national investment company should be associated.

We are therefore interested in the contours of private investment by seeking to assess the nature of its effects on economic growth in Cameroon. Thus, the article is organized as follows. Section two introduces the concept of economic growth. Then section three will focus on the theoretical framework of the association between private investment and economic growth and thus outline the research hypotheses. Section four will deal with methodological

aspects and we will present the result obtained and their interpretations. The last section will conclude with a synthesis and some avenues for further research.

Economic Growth

Economic growth theory has seen a revival of interest in the nature of financing growth through private investment. Thus, for economists, investment is considered as the acquisition of physical assets that contribute to the current and future result that capital assembles. Thus, this conception has been exposed in the main detailed works of Cobb and Douglas (1928), of Tinbergen (1942), of Solow (1956, 1957), and others. They were among the best to use "the aggregate production function", in order to make explicit the existing relationship between material capital and labor.

In a theoretical way, the sources of economic growth have been explained by numerous theses. These theories have in turn elucidated the primary role of certain macroeconomic variables as a lever of economic growth. Private investment in particular. Indeed, Keynesian theorists, for whom financial phenomena are a determined factor in explaining the level of activity, have traditionally not been interested in long-term growth, but in the development of short-term models (Harrod-Domar models). Thus, some authors consider that the phase of economic development is determined by an increase in national income. The variable that can explain this is the private sector: it is the lung of economic activity. This is how Keynes began to think about the state of an autonomous investment function in the economy.

As a consequence of the Second World War, post-Keynesian economists will try to interpret the requirements in which a period of expansion can be constant. The Harrod and Domar model (1948) consists in extending the general theory of Keynes, which only supports the short term, to the long term. It makes it possible to highlight the highly vulnerable specify of growth. Specifically, he assumes that for growth to be reasonable, there must be neither underproduction nor overproduction. It must respect a rate that is a function of the economy's savings and capital ratio. However, it is

very difficult for growth to respect this rate, since it depends on the investment intentions of entrepreneurs.

Solow's (1956) neoclassical conformist growth model ended the question of the origins of long-run growth and focused on the instrument of capital accumulation and annexation to the stationary state. The new theories have sought to re-establish an explicit study of the long-term characteristics of the increase in the return on capital.

Indeed, the research of an endogenous growth relative to the constant return or the quotients of the production accumulator, leads to question on the tangible external consequences anchored to the investment of the factors of production and on the role of the technology in the growth of the productivity. Solow (1957) concludes, in his studies, that a significant part of the increases in productivity remains unexplained. He develops this specificity by a residual granted to improvements in knowledge and technology that are not immediately measured.

Theoretical Framework

In this section, we will first look at the concept of private investment which has a probable effect on economic growth and then present the cross effect between the two concepts.

Private Investment

For Keynesians, investment arises from the return on capital which is measured at its rate of interest. Thus, the variation in the investment costs of firms was identified according to the accelerator theory. According to this theory, there is a very strong and invariable correlation between investment and productivity growth. Never mind, to produce you have to invest. To better understand and explain the aspect of business investment, it comes down to explaining the evolution of production using other variables. Indeed, it seems obvious that an eminent gain ratio pushes the agents to invest more. However, the correct variable for deciding profitability is the difference between the rates of profit and the opportunity cost of funds.

However, J. M. Clark (1917) studies an investment function based on the accelerator

principle. It analyzes the capital in two components: net investment and replacement investment. The J. Tinbergen (1938) studies, for its part, are trying to develop business investment by a function to be based on the basis of simple acceleration. These studies do not provide a reliable description of the observed investment and the second formulation is that of the flexible acceleration principle.

Romer (1986) assumes that technological change is endogenous and the private investment raises the level of technology across the economy. Thus, "private investment establishes a link between technological progress and economic growth" (Grossman and Helpman, 1991). This concept will be widely defined by Jorgenson (1996), for whom the investment is the acquisition of current resources in a challenge of future productivities and can take several forms. The separate feature of investment as a foundation for economic growth is that its productivities can be internalized by the investor.

The evolution of the theory of investment gave birth to the theceny of the accelerator, which makes investment a linear proportion of the evolution of growth. In addition, the Harrod - Domar models highlight the necessary rules and features that has the balance of a growing capitalist economy. The Domar (1946) idea is to consider that investment results in an equivocal influence on the economy. This is the foundation of our first assumption:

H1: « private investment positively influences economic growth in Cameroon through the direct channel. »

The Cross Effect of Private Investment and Economic Growth

In the theoretical level, the private transitional transmission channel on growth is based on the principle of the accelerator. This principle of Albert Aftalion (1909) and John Maurice Clark (1917) is based on the link between early demand and the investment strategy used by companies intended to satisfy it. Thus, the spring idea is that of the adjustment of a productive potential to the anticipation of existing opportunities. In other words, thus is an adjustment of the offer has changing the situation.

Several authors are interest in reviewing private investment according to the transmission channel. Designs differ according to objectives and applications. Some refer to a descriptive approach to study private investment and its impact on growth according to the direct channel named domestic investment (Nazmi et Miguel, 1997). Others, on the other hand, used macroeconomic and macro-econometric processes according to the indirect transmission channel appointed foreign direct investment (Agosin et Mayer, 2000). This last model focused on growth models, temporal templates and calculating generally balances models.

Thus, at the end of these observations, the culmination does not provide a specific answer to the effect of private investment on economic growth according to the transmission channel. Private investment is the main method of funding growth. However, the use of this method is criticized between the major neoclassical and Keynesian currents.

For classics and neoclassical, the determination of the investment is used with the confrontation between savings and investment. Thus, this equality finds its balance through the time price, such as the interest rate, which is the fundamental parameter of the decision to invest.

The role of the invest by the relationship of production with its factors (capital, labor and technologies). Jorgenson (1963), in a neoclassical statement of the investment function takes into account the characteristics of the investment, the cost of capital and that of labor, as well as the capital-cost cost. In fact, the investment also results from the elasticity of substitution between these factors of production.

However, taking into account business forecasts is based on investment decisions generally turned towards the future. To solve this dilemma, Tobin (1969) proposes that all appropriate forecasts for summary companies in the prices that the stock market is in their assets. According to him, the ration (Q of Tobin) is the major characteristic of the investment. However, this contribution in explaining the change in business investment costs in Cameroon where the stock market is not quite developed.

Assuming that technical progress is achieved endogenously through private investment (Romer, 1986). This effect results in a production function with increasing returns to scale. In this perspective, Ghura (1997) provides an analysis of the characteristics of Cameroon's economic growth from the relationship between private investment and economic growth. Similarly, for Jorgenson (1963), the value of the capital stock desired for any firm depends positively on the level of demand. A country's output would be a reasonable surrogate for aggregate demand as a determinant of private investment in the country. Therefore, modifying the production system consists in consolidating the competitiveness of the economy in such a way that it creates more wealth essential for growth. Thus, investing is a source of initiation through practice, and this knowledge cannot be adequate by the firm which produces it and is inevitably disseminated to other firms (Romer, 1986).

However, interest rates need to be higher to generate savings, which will develop the level of investment. In fact, Bleger and Khan (1984) notes that any effect of interest rate on private investment in developing countries, translates the effect of credit ration and exhibits an effect transmitted to private investment through the savings response to lower interest rate.

Nevertheless, these models, usually used in the literature, do not take into account the consequences of certain components of the economy. In addition, there are large-time, precisely annual series, to ensure that the effects are more robust. This is how, from a large amount of period, specifications, statistical tests and country samples. DeLong and Summers (1991) conclude that the social return on investment is reasonable and precedes the private performance. This result results in government intervention as a growth excitation device. Similarly, governments must strengthen any investment inadvertently investigation.

However, economic growth follows from emergence of innovation. To Romer (1990), these innovations take the next aspect of new methods, new tools, who join those already in place. The new equipment assets make it possible to improve the division of labor that is a positive externality for economic growth.

Barro (1990), for its part, will make public spending a determinant of economic progress and will provide the concept of optimal state size.

The state must contribute to the economy to improve the productivity of the private sector, by decreasing to the strict maximum, the tax abberences that would result from its financial interference. It is necessary to note the austerity of public infrastructures in the circulation of information, people and property. The tax consisting of funding these investments leads to a positive consequence on growth and not only a coveting consequence on the private sector. In this way, it is thus participated in public expenditure, not in a stability vision, but in a structural growth vision. By making the cost of lower information, these state interferences defend the implementation of the terms of a perfect rivalry. In view of the correlation between savings and investment of the organist growth theory, Lucas (1988), Romer (1990) and Barro (1990) support the idea that the accumulation of physical capital is the basis for the economic growth in the long term. This is the foundation of our second hypothesis:

H2: « private investment positively influences economic growth in Cameroon through the indirect channel. »

Research Methodology

The Sample

Our work is to review the effect of private investment on economic growth over 1990-2016 period. The model estimate will be used using econometric and statistical methods on multiple linear regression. The data is essentially taken from the database of The National Institute of Statistic (Cameroon), National Accounts and the World Bank's 2017 directory.

Presentation of Variables and Theirs Measurements

The variable explained

Also called dependent variable, the variable explained in our two hypotheses is economic growth. It is measured by the annual growth rate of GDP per capita (TxC). The economic growth measurement indicator that compares economic performance from one country to another is GDP (Gross Domestic Product).

Explicitly, the increase in GDP may be due either to an increase in the volume produced or has an increase in prices. Thus, growth in value takes into account inflation, while the volume takes into account the increase of the quantities produced.

The variable is an indicator of measurement except excellence of economic performance to the detriment of other alternative indicators. However, its relevance is conditioned by the existence of other variables called independent variables.

Independent variables

Samples independent variables, these are key aggregates that explain the phenomenon studies. In our analysis, we will distinguish several. In our assumption of the effect of private investment on the growth of the Cameroonian economy, there are two types of explanatory variables to know the main variable (physical capital investment) and control variables (public spending, public investment, foreign direct investment, political instability and inflation).

Domestic investment (INV)

The investment rate is the share of investment based on the wealth produced, logically it is the coefficient of the raw fixed capital formation of all economic agents reported to GDP and formulated as a percentage. It allows to experiment with the percentage of the devoted richness to the investment each year. Two-patient rate of models are based: the private sector investment rate (enterprises) and the investment rate of the country's economy that meets all the actors. It designates all acquisitions of productive materials and basic infrastructure (roads, dams, bridges, school, hospital). The works of Morrisson and Schwart (1996) have exhibited the importance of the physical capital investment growth.

According to growth theories, the accumulation of physical is the basis for growth. The consolidation of the value of infrastructures degrades costs (transport, energy...) and therefore encourages demand and supply, which leads to competitiveness. It can also allow the disencillations of poor regions and allow them to achieve more reasonable opportunities (Estocé, 2003). The measured retaining is the gross

formation of fixed capital as a percentage of GDP. The expected sign is positive.

Foreign direct investment (IDE)

The definition of foreign direct investment can be approximately several angles. According to the International Monetary Fund, foreign direct investment is achieved in order to acquire sustainable interest in business operating in the country of territory other than that of the national investor. And according to OECD, foreign direct investment is made to establish sustainable economic ties of business. In summary, IDEs define investments through which resident concepts of an economy provide or established a lasting gain in an entity of a foreign economy. The specific percentage investment of GDP is estimated from the net entrants flow of IDEs. These improve the overall productivity of an economy via the availability of technological and organizational knowledge negotiable to the rest of the economy. The retaining is the met incoming flow or incoming IDE in percentage of GDP. The expected sign is positive.

Public spending performance GDP (DP)

Public spending is the total costs performed by public administrations. This variable represents the effectiveness of macroeconomics policies. Government spending can actually act on growth by encouraging the demand for goods and services, resulting in increasing production and thus growth. Public expenditure may, through the costs associated with education, health and other services that contribute to capital accumulation, increase the marginal productivity of production factors and growth, but these costs may have a negative consequence of growth when the following canvas occurs: the increase in the public spending results in an increase in the supply of the currency, with the inflation and decreases, by ricochet, savings, investment, production and growth. The measure retained is the expenditure of the annuities in percentage of GDP. In any case, the expected effect is positive.

Public investment (INVP)

Invest, investing makes it possible to engage significant spending today in order to obtain a profit in the future. The decision-related

decision is made by conferring the profits provided with interest rates of a financial investment. In a company, the distinction between investment and expenses is established that the investment firmly changes the operating cycle and allows its growth while the loads are consumed in the latter. As a result, investments in physical infrastructure, investment in training, education, health. All these are intended to support economic activity and put in place a necessary framework for the extension of the productive sector. We measure this component by spending percentage of total expenditure (% of GDP). The expected sign is positive.

Political instability (IP)

Political instability has been the subject of many political-economic debates. According to some authors, it is subject to riots, political demonstrations, civil wars, or ministerial re-works. Indeed, empirical studies conclude that it negatively affects economic growth. Thus, it can have direct effects on economic results. In addition, this variable is a linear combination of the policy instability indicators erected by the main component method submitted by Alesina and Perotti (1993). Thus, considered a measure of dislocation generated by the sites and their cororan, this variable is called dichotomic or silent. It takes value 1 if the country is in instability and 0 otherwise. Thus, the expected effect of strong instability on economic growth is negative.

The growth rate of the population (POP)

Under Barro (2000), Malthus (1798), growth is negatively rooted at fertility rate. Thus, having more children in the family will generate a growth rate of this population more superior. An increase in the growth rate may be the cause of the downturn of per capita GDP. Similarly, in the context of exogenous growth models, such as soil, population growth leads to a depleting effect. The expected sign is negative.

Inflation (INFL)

Inflation is the increase in the general level of prices. It is explained by a decline in the

purchasing power of the currency. The effect of inflation on long-term growth has been the subject of many empirical views. From De Gregorio (1993) has found a negative relationship between the level of inflation, the variability of inflation and growth in Latin America. It is on a sample of 12 countries in installing cuts of 1950 at 1985. in addition, Barro (1997), in a study on the regression of 1960 at 1990, has found a negative effect of inflation on the growth rate of production by the head. The measured retaining is the percentage rate inflation rate and the expected sign is negative.

Research Model

Our study will inspire the Ghura (1997) model, for the more reason that we have data on our variables in order to enable us to explain the phenomenon in particular growth. To carry out this research work, a number of objectives are needed to channel our vision. Thus, the general objective is to examine the consequences of private investment on economic growth in Cameroon according to the transmission channel. Specifically, it is a question of analyzing the effect of private investment on economic growth in Cameroon according to the direct transmission channel and analyze the effect of private investment on economic growth in Cameroon according to the indirect transmission channel. From the detail of the literature, some variables are likely to influence private investment in Cameroon. Hence the retaining specification is inspired by the model used by Ghura (1997). Thus, we will add to the initial model the variables such as: physical capital investment, public spending, public investment, foreign direct investment, political instability and inflation.

The function is thus:

$$TxC = A + \beta_1 INV + \beta_2 INVP + \beta_3 IDE + \beta_4 DP + \beta_5 IP + \beta_6 INFL + \beta_7 POP + \varepsilon_t$$

With:

A : constant;

ε_t : the end term;

Table 1. Summary Table of The Expected Economic Signs Expected of Variables

Explanatory Variables	Measure (Code)	Coefficient	Signs Expected
Economic growth	GDP per capita (TxC)	/	/
Domestic Investment	Gross training of fixed capital (INV)	β_1	Positive (+)
Public Spending Performance	Public expenditures expenditure (DP)	β_2	Positive (+)
Public Investissement	Percentage expenditure of total expenditures (percent of GDP) (INVP)	β_3	Positive (+)
Foreign Direct Investment	Capital incoming flows (IDE)	β_4	Positive (+)
Politic Instability	0 => no instability 1=> presence of instability (IP)	β_5	Negative (-)
Growth Rate of the Population	Growth of the Population (POP)	β_6	Negative (-)
Inflation rate	Inflation rate percent of GDP	β_7	Negative (-)

Empirical Results

This is in this section to make a descriptive analysis and a multivariate analysis of the variables of the study.

Descriptive analysis

By observing, we see in table 2 which presents the descriptive statistics a difference between certain variables. The number of observations per variable indicates that we have a perfectly balanced series. Which develops by the existence of missing data at certain ranges for certain data and the delays applied to certain data. Moreover, on a significant variation within the sample. The above model entails an economic challenge. Such that the explanatory

variables can be individually or jointly endogenous with the dependent variable, this is the case of domestic investment whose average is 21.18 points with a standard deviation of 2.48 whose interval is 14.31 at 24.24. So, investment positively influences economic growth rate of investments leads to a 21.24% increase in the growth rate of per capita GDP.

Thus, the statistics on public investment shows an average of 11.70 with a standard deviation of 0.93% on an interval of 10.29 at 14.39. what explains the complementarity of public investment as an economic growth carrier. In addition, political instability shows a positive average of 0.2222 with a standard deviation of 0.42, which explains the critical state of the country's socio-political situation.

Table 2. Variables Statistics

Variables	Observations	Average	Standard deviation	Minimum	Maximum
TxC	27	0.103611	3.651093	-10.45730	3.977432
INV	27	21.18319	2.487052	14.30539	24.23623
INVP	27	11.70419	0.932834	10.29452	14.39682
DP	27	101.4833	3.09646	94.64102	105.3499
IDE	27	1.0800	1.20264	-1.01179	4.342923
IP	27	0.2222	0.4236	0.0000	1.00000
POPO	27	2.6786	0.1144	2.4968	2.9720
INFL	27	2.3236	2.5189	-1.2776	9.6187

Multivariate analysis

We see that the variables are all correlated with each other. The correlation matrix indicates a negative relationship between public investment, political instability and rate of population growth. However, this would not mean that these variables are independent. The

choice to present these variables in the results of our analysis is necessary, because they are quite correlated with each other. The table below presents the correlation matrix of these variables, calculated on the sample of our study.

Table 3. Correlation Between Variables

	TxC	INV	INVP	IDE	DP	IP	POP	INFL
TxC	1.0000							
INV	0.7606	1.0000						
INVP	-0.675	-0.402	1.0000					
IDE	0.4475	0.5733	-0.209	1.0000				
DP	0.5987	0.8768	-0.130	0.6387	1.0000			
IP	-0.366	-0.0242	0.3713	0.0997	-0.047	1.0000		
POP	-0.738	-0.435	0.5411	-0.325	-0.286	0.1773	1.0000	
INFL	0.1884	0.1288	-0.388	-0.106	-0.231	-0.121	-0.084	1.0000

The coefficient of determination of the estimated econometric model is equal to 0.8572. this would mean that the variations in Cameroon's economic growth rate revealed at 85.72% by the variables taken into account in the model. In addition, 85.72% of uncertainties in Cameroon's economic growth rate are explained by the variables domestic investment, public investment, foreign direct investment, political instability and inflation rate over the period 1990 at 2016. Moreover, the Fisher statistic (F-statistic) which tests the adequacy of the model (the significance of the model), strengthens the coefficient of determination.

This statistic is 0.0000, which is significantly less than 5%. Thus, we can deduce that the model is globally significant. Which can lead to testing the individual significance of the coefficients.

Our research aims to evaluate them. Investment channels through its role in Cameroon's economic growth. In this case the methodological aspect is the hypothetico-deductive approach based on the tests of hypotheses. Thus, the estimation of our model is carried out over the period from 1990 at 2016, that is to say a sample of 28 observations. The effects of this estimate are restricted in the following table.

Table 4: Results of The Model Estimate

Explanatory Variables	Signs Expected	Coefficients
INV	Positive (+)	0.148747 (0.5218)
INVP	Positive (+)	-1.097236* (-2.3415)
IDE	Positive (+)	-0.067470 (-0.1978)
DP	Positive (+)	0.445984* (3.3536)
IP	Negative (-)	-1.141632** (-1.3650)
INFL	Negative (-)	0.145320** (1.0144)
POP	Negative (-)	-13.24363*** (-3.8302)

Diagnostic statistic	
R ²	0.857248
R ² -ajuste	0.814422
SCE	1.572845
SCR	49.47685
F-Statistique	-46.48786
DW	2.169277

Notes: the figures in parentheses indicate the values of statistics t, *represent the significance of the threshold of 10%, ** represent the significance of the threshold of 5%, *** represent the significance of the threshold of 1%.

The equation of this model is written:

$$\begin{aligned} \text{TxG} = & 0.148747 * \text{INV} - 1.097236 * \text{INVP} - \\ & 0.067470 * \text{IDE} + 0.445984 * \text{DP} - \\ & 1.141632 * \text{IP} + 0.145320 * \text{INFL} - \\ & 13.24363 * \text{POP} + \varepsilon_t. \end{aligned}$$

The coefficient associated with domestic investment is positive and significant at the 5% threshold. This variable has the expected economic sign. We can say that this investment contributes positively and significantly to economic growth in Cameroon over the period 1990 to 2016. According to this econometric estimate, a 1% increase in domestic investment leads to a 0,1487% increase in the GDP growth rate in Cameroon. This result confirms the neoclassical theory according to which investment is a factor of economic growth, thus, this result corroborates with that Romer (1986), the investment in capital increase the productivity and consequently the economic growth.

Similarly, the coefficient associated with this public investment variable is negative, which is in line with economic predictions. Thus, an increase in public administration investment of 1% leads to a decrease in economic growth of 1,0972%.

Similarly, the coefficient associated with the public expenditure variable is positive, which is in line with economic predictions. Thus, an increase in public administration expenditure of 1% leads to an increase in economic growth of 0,4459%. This is explained by the presence of an investment policy likely to allow an increase in production and to provide the economy with an adequate framework.

Government spending has a positive effect on growth by stimulating demand for goods and services, which in turn increases production and boosts growth. Public spending can, through spending on education, health and other services that contribute to capital accumulation, increase the marginal productivity of factors of production and growth. This result will contradict that obtained by Temouk (1999), according to which public spending has a negative impact on economic growth. Given that the sign is positive and its probability significant, we end up with an acceptance of the hypothesis:

H1: « private investment positively influences economic growth in Cameroon through the direct channel. »

The coefficient associated with foreign direct investment is negative and not significant at the 5% level. Which goes against economic predictions. We can say that this investment contributes negatively and not significantly to economic growth in Cameroon over the period 1990 to 2016. Thus, a net increase in foreign direct investment flows of one point leads to a decrease in economic growth of 0.0674%, all other things being equal. However, this result is in line with that of Sadik and Bolbola (2001), in their empirical findings that foreign direct investment has a negative effect on economic growth. It therefore appears that developing countries only benefit from a minority share of foreign direct investment flows, even though these flows have increased. However, Deblock (2005) believes that despite the recovery in 2004, foreign investment should no longer be seen as a panacea for developing countries, as international investors take into account market size, political and economic instability, governance more or less failure, corruption and low competitiveness of the system. From this result, we reject the hypothesis:

H2: « private investment positively influences economic growth in Cameroon through the indirect channel. »

The coefficient associated with the political instability variable is negative as expected. Thus, any increase of one point in this variable results in a decrease in economic growth of 1.1416%, all other things being equal. However, it has an insignificant effect, as its probability of 0.1874 is below the 5% threshold. Furthermore, by destroying physical and human assets, and by diverting public spending from productive activities, political instability depresses economic growth. This is what leads Collier (1999) to support the idea that, on average, a country to lose more than 2% per year of its GDP per capita compared to what it would have achieved without war. The world bank notes that political instability has been a factor in the decline of economic growth in Africa since the early 1970s.

The coefficient associated with the variable inflation is positive which is against the economic predictions. Thus, any increase of one point of this variable leads to an increase in economic growth of 0.1452%, all other things being equal. However, it has an insignificant effect, since its probability is 0.0000 at the 5% level. On the other hand, the results of other studies show a negative effect. De Gregorio (1993) found a negative relationship between the level of inflation, the variability of inflation and growth in Latin America. This on a sample of 12 countries is instantaneous cuts from 1950 to 1985. Furthermore, Barro (1997), in a study on the regression from 1960 to 1990, found a negative effect of inflation on the growth rates of output per capita.

The coefficient associated with the population growth rate variable is negative. Thus, the sign of this variable is not that economically expected. We can therefore say that an increase in the population of one point leads to a decrease in economic growth of 13.2436%, all other things being equal. Its effect is significant at the 5% level. A denser population decreases the evolution of technology due to notions of knowledge creation. Technology therefore complements the consequences and increases the profitability of the investment.

Conclusion

The objective of this research was to analyze the effect of private investment on economic growth in Cameroon, through direct and indirect channels. After any analysis, it emerges that private investment has a positive and significant link on economic growth in Cameroon through the direct channel than through the indirect channel. Moreover, to go around the subject centered on the contribution of private investment on economic growth in Cameroon. Our research was split into two parts: the first part was developed to the presentation of the concepts of the study, the second part consisted in evaluating the effects of private investment on economic growth. Our main objective was to analyze the effects of private investments on economic growth in Cameroon according to the nature of the transmission channel. Two specifics resulted from this main objective:

- a. Analyze the effect of private investment on economic growth in Cameroon through the domestic investment channel;
- b. Analyze the effect of private investment on economic growth in Cameroon through the foreign direct investment channel.

The review of the existing theoretical and empirical literature led us to formulate the following general hypothesis:

H1: « private investment positively influences economic growth in Cameroon through the direct channel. »

H2: « private investment positively influences economic growth in Cameroon through the indirect channel. »

We made an estimate using the ordinary least squares (OLS) method. Our study was spread over the period 1990 to 2016. In fact, the process considered of studying the stationarity of the variables, studying the existence of cointegration relation between the variables. Signs of the coefficients associated with each explanatory variable. Thus, after regression, our model is globally significant, with a high coefficient of determination and the Fisher statistics below the critical threshold of 5%. Some variables had the expected parameters, others had the opposite sign. We justified the why. But, the focal point of the estimate was to discover the fate of our two hypotheses. Thus, the first hypothesis was validated: the direct channel of

private investment positively influences economic growth in Cameroon. On the other hand, the second hypothesis did not meet the same fate: it was rejected. The indirect channel of private investment has a negative effect on economic growth in Cameroon, as political instability in some regions of the country persists.

In addition, the economy of Cameroon needs supports from private and international partners to be recovered, because in recent years, the country has focused on private investment as a pledge of its growth. It will have failed to allow Cameroon to achieve strong, sustained and stable economic growth that could lead to develop.

Development is a more complex notion that goes beyond simple economic growth. It is a qualitative phenomenon which involves social well-being, intellectual and cultural development, respect for human rights and the guarantee of fundamental freedom, strong and sustained growth, protection of environment, etc. development cannot be to economic growth alone. Likewise, economic growth cannot be the exclusive functioning private sector.

It is true that the rule of private investment in economic activity is undeniable as the financing of economic growth. But my economic growth presupposes above all a quantitative increase in production, an improvement in production processes to make the economy competitive. However, Cameroon is not such a large producer. Its economy is based mainly on agriculture, which itself requires investment likely to lead to development. In a momentum, it would be necessary to equip the economy with cutting-edge technologies for an improvement of production processes, industrialize the economic landscape, encourage and support foreign and national investors, by reducing taxes, removing red tape, and above all by improving the business climate by combatting corruption, which is notoriously damaging to economic activity.

Our work highlights a number of limitations. First of all, the data in the study does not all come from the same source. As a result, they can be subject to a number of biases. They come from the database of the National Institute of Statistics of Cameroon and the World Bank. Secondly, it was not easy to collect the data for

this study because of the often interrupted nature of the data of certain variables in the same database. Finally, we took into account that 28 observations for our study, all this because of the limitations that we mentioned above.

Moreover, an extension of our study period could make the results more interesting. In other words, our results can be improved if we increase the number of observations. Moreover, in order to improve our work, we could extend the research to the whole of Sub-Saharan Africa.

References

Aftalion, A. (1913), *Les Crises Périodiques De Surproduction*, éditions M. Rivière, Paris

Agosin, M., R., and Mayer R., (2000), "Foreign Investment in Developing Countries. Does It Crowd In Domestic Investment?" UNCTAD/OSG/DP 146

Akpalu, W., (2002): "Modelling Private Investment In Ghana: An Empirical Time Series Econometrics Investigation (1970-1994)," *The Oguua Journal Of Social Sciences*, Vol. 4, Faculty Of Social Sciences, University Of Cape Coast.

Amin, A. A., (2002), An examination of the sources of economic growth in Cameroon, AERC Research Paper 116, African Economic Research Consortium, Nairobi

Asante, Y., (2000): "Determinants of Private Investment Behaviour," AERC Research Paper No. 100, Nairobi: AERC.

B. Dia Kamgnja et Touna Mama, (2001), *Le Comportement D'investissement Privé au Cameroun: Un Resserrement De La Contrainte Financière?* Les Cahiers Du SISERA - 2002/1

Barro R., (1990), Government Spending In A Simple Model Of Endogenous Growth, *Journal of Political Economy*, Vol. 98 N°5;

Bende-Nabende, A. and Ford, J. L., (1998), « Foreign Direct Investment, Policy Adjustment and Endogenous Growth: Multiplier Effects from a Small Dynamic Model for Taiwan, 1959-1995 », *World Development*, vol. 26, n° 7, pp. 1 315-1 330

Beddies, C., (1999): —Investment, Capital Accumulation and Growth: Some Evidence from Gambia: 1964-1998||, IMF Working Paper 1999/117

Bleger, M., I. and Khan M., (1984), government policy and private investment in developing countries, *IMF Staff Papers*, Vol 31, Issue 2, 379-403

Clark, J., M., (1917), *Business Acceleration and The Law of Demand: A Technical Factor in Economic Cycles*, *The Journal of Political Economy*

Collier, P., (1999), "On the Economic Consequences of Civil War", *Oxford Economic Papers*, Vol 51, Issue 1, pp 168-183

DeLong J., B., Summers, L., H., (1991), Equipment Investment and Economic Growth, *The Quarterly Journal of Economics*, Vol 106, N°2, 445-502

Estoche S., (2000), « Analyses Empiriques des Déterminants De La Croissance À Long Terme », Thèse De Doctorat En Sciences Économiques, Université De Paris I

Ghura Dhaneshwar. (1997). 'Private Investment and Edogenous Growth Evidence From Cameron. "IMF Working Paper 97/166

Groupe De La Banque Africaine De Développement (2012), Environnement De L'investissement Privé Au Cameroun

Harrod et Domar, (1964), Harrod-Domar model vs the neoclassical growth model, *the Economic Journal*, Vol 38, Issue 152, pp. 543-559

Herbet J.B., (2001), « Peut-on expliquer l'investissement à partir de ses déterminants traditionnels au cours de la décennie 90? », *Economie et Statistique*, n° 341-342, p. 94

Ibrahim Ngouhou et Eric Mouchili, (2014), Saving, Investment and Economic Growth in Cameroun: A Multivariate Approach, *International Journal of Economics and Finance*; Vol. 6, No. 9

Jorgenson, D.W., (1984), « Productivity and Economic Growth », Harvard Institute of Economic Research, Discussion Paper

Jorgenson D. W., and Stiroh K. J., (2000), "U.S Economic Growth in The Millennium" *American Economic Review, Papers and Proceedings*

Keynes J. M., (1936), *Théorie générale de l'emploi, de l'intérêt et de la monnaie*, traduction française de Largentaye J. Payot (1982)

Lucas R. E., (1988), « On the Mechanics of Economic Development », *Journal of Monetary Economics*, vol. 22, n° 1, pp. 3-42

Morrisson, C. J., and Schwatz A. E., (1996), "State Infrastructure and Productivity Performance" *American Economic Review*

Muet P.A., (1979), « Les modèles néoclassiques et l'impact du taux d'intérêt sur l'investissement », *Revue économique*, n°2, mars, p. 244-281

Naa-Idar, F., Tutu D. A. and Frimpong, M. J., (2012): A Time Series Analysis of Determinants of Private Investment in Ghana (1960-2010), *Journal of Economics and Sustainable Development*, 3: 23-33

Nazmi, N., and Ramirez M., D., (1997), "Public and Private Investment and Economic Growth In Mexico", *Comtempory Economic Policy*

Rapport Thématique (Recensement General Des Entreprises, 2009): *Environnement Des Affaires Et Compétitivité des Entrprises Camerounaises*

Romer P., (1986), « Increasing Returns and Long Run Growth », *Journal of Political Economy*, vol.94, no.5, pp.1002-1037

Romer P., (1990), « Endogenous technological change », *Journal of PoliticalEconomy*, vol.98, pp.71-102

Solow R., (1956), « A Contribution to The Theory of Economic Growth », *Quarterly Journal Of Economics*, Vol.70, N°6, Pp.65-94;

Solow R., (1957), « Technical Change and The Aggregate Production Function », *Review of Economics And Statistics*, Vol.39, Pp.312-320

Souad Dhaoui, (2016), Les Déterminants De L'investissement Privé, *Une Revue De La Littérature Théorique Et Empirique*, Numéro 37

Tobin J., (1969), "A general equilibrium approach to monetary theory", *Journal of Money, Credit and Banking*, n° 1, p. 15-29

Touna Mama, Kamgnia Dia B., (2002), Ouédraogo J. Et Zeufack A., *Ajustement Structurel Et Investissement Privé En Afrique: Les Cas Du Burkina Faso, Du Cameroun Et De La Cote D'ivoire*, *Les Cahiers du SISER*

Touna Mama Et Tsafack-Nanfoso, R., (2000): *L'économie Camerounaise: De La Crise À La Reprise*, L'Harmattan, Paris

Touna Mama, (2008), *L'économie Camerounaise: Pour un nouveau départ*, éditions Afrédit, Yaoundé

Villieu, P., (2000), *Macroéconomie: l'investissement*, Paris, La Découverte.