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RESEARCH ARTICLE

THE IMPACT OF EXTERNAL PUBLIC DEBT ON ECONOMIC GROWTH: A CASE STUDY OF THE REPUBLIC OF CONGO

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ABSTRACT

This paper intends to determine whether there is a relation between the external public debt and the economic growth in the Republic of the Congo 1975-2015. To achieve the purpose, we have applied a model of multiple regression. Therefore, the results demonstrate that the external public debt and the debt service had a negative effect on growth. Hence, the study recommends to the Congo to comply with convergence criteria of EMCCAS which set the threshold of the public debt by 70 % of GDP.

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INTRODUCTION

Public debt remains one of the major economic concerns at the beginning of the twenty-first century. The relatively high level of public debt relates to the GDP of many countries, especially developing countries, has given rise to exceptional treatment of this issue in the 1990s. Indebtedness is feared because of its consequences on the international financial system. Reliance on debt suggests that the latter is linked to the economic growth, particularly in developing countries. Also, we are led to question the meaning of this link in the case of Congo-Brazzaville. In this perspective, we resort to the period from 1975 to 2015. Congolese external debt is characterized by its size and rapid growth. According to the International Monetary Fund (IMF), this debt, which accounted for 180% of GDP in 2005, was reduced by 20% of GDP following the country's achievement in 2010 of the completion point of heavily indebted poor countries initiative (HIPCs). But Congo quickly re-debted again so that, in 2017, the debt represents 117% of GDP. This proportion represents almost twice the rate authorized in the Economic and Monetary Community of Central Africa (CEMAC) of which the Congo is a member. At the same time, the country is facing significant macroeconomic imbalances, including a decline in economic activity.

Meanwhile, the country has recorded large budget surpluses between 2003 and 2014 and average GDP growth of 5.2% in the same period. External debt continues to be a heavy burden as a result of a combination of several factors: imprudent external debt management, lack of perseverance in structural adjustment and the implementation of economic reforms, deterioration of exchange, in short, poor governance. The general objective of this study is to verify the meaning of the relationship between the external public debt and the economic growth of the Congo over the period 1975-2015. In concrete terms, it is necessary to determine, from external debt data, economic growth and other explanatory parameters of growth if Congolese external public debt has a positive, negative or mixed influence on economic growth of this period. The question that underlies our problem is: how did the external debt influence economic growth in Congo?. From this problematic the following hypothesis can be considered: the external debt has negatively influenced the economic growth of the Congo because of its management considered unorthodox by the international financial institutions (IMF and World Bank). The adopted methodology is an econometric approach using the error correction method, from the EVIEWS software. Stationarity tests are also carried out to make all the variables used stationary in order to avoid that ordinary least squares regression is misleading. The EVIEWS software used makes it possible to determine the meaning of the link between each of the variables selected and the growth of real GDP and, consequently, to draw conclusions from economic policy.

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The data used in the study are those published by the IMF, the World Bank and the African Development Bank (AfDB). They cover the period from 1975 to 2015. The present study consists of three sections. The first is devoted to examining the existing literature on the question of the link between public debt and economic growth. The second section deals with the empirical study of this relationship in the case of Congo. Finally, the third section analyzes the results and makes recommendations on economic policy.

Review of the literature: The theoretical works have failed to decide on a favorable or unfavorable effect of external debt on economic growth. Empirical studies have been conducted to determine whether there is a correlation between external debt and economic growth. Authors who have focused on the relationship between external debt and economic growth can be classified into three groups:

- First, those who believe that the external debt has a positive influence on growth;
- Secondly, those who, on the other hand, think that this impact is negative;
- And finally that of those who condition this relationship to the debt ratio.

It should also be noted that this question is part of the opposition between, on the one hand, the neoclassical logic, which considers the debt as a future tax having a negative effect on growth and, on the other hand, Keynesian logic, which sees debt as a source of investment and therefore growth. Thus, in this study, the authors will be grouped according to whether they put forward the positive effect, the negative effect or the mitigated effect of the external debt on the economic growth.

Supporters of the positive impact: In line with the authors who establish a positive link between the external debt and economic growth, there is above all the authors who subscribe to a Keynesian logic. According to this logic, indebtedness increases global demand and stimulates national production. In this sense, it constitutes a means of economic recovery by increasing the investment it generates. According to Amadou O. (2010), external debt stimulates growth provided it is used to finance investments. For this to be the case, the author believes that there is a need for the country's return on capital to not decline. If not, the impact of any new investment on growth will be negative as debt increases. Verhofstadt G. (2001) states that a properly allocated debt is good for economic growth. It exerts a leverage effect on economic growth. Debonneuil M. (2003) estimates that, with the external debt, there is an investment in the sector where there is a lack of financing that can encourage economic growth. In the same vein, Bessad M. (2004) believes that good external debt management stimulates investment that will have a positive effect on domestic production, and thus on economic growth. In a study of a panel of 18 OECD countries for the period 1980-2006, Cecchetti, Mohanty and Zampoli (2011), arrived at the result that external debt has a positive effect on growth in these countries provided that it is not very high without specifying the inversion threshold. In an article on the effects of household consumption on the public debt of the Congo, Kagni V. (2013) came to the conclusion that the public debt is a means of financing economies with a large multiplier effect provided that it not be swallowed up in unproductive traps.

The expansive economic policies financed by borrowing favor the purchasing power of households and, consequently, have a positive effect on growth.

Supporters of the negative impact: In the traditional logic, the debt is assimilated to a future tax which will have a negative effect on the economic growth. For example, Krugman (1988) estimates that high debt is detrimental to growth as it discourages investment. Other authors have published works that have identified a negative link between external indebtedness and economic growth. This is how Latouche S. (2000) notes that indebtedness affected for example by consumption or the purchase of weapons can lead to debt overhang and discourage economic growth. Guellec D. (1999) points out that over-indebtedness is bad for growth because it discourages investment because, among other things, the anticipation it induces with regard to the increase of the tax burden among private agents. Muchielli J.L. (1997), for his part, believes that unsustainable debt is a drag on economic growth. It exerts a sizeable pressure on domestic resources that otherwise could have been used to finance essential investments, including public goods. In this sense, indebtedness sends bad signals to economic agents about macroeconomic stability. Abdelhafidh S. (2014), in a study of the effect of external debt on economic growth in Tunisia over the period 1970-2010, came to the conclusion that the effect of external debt on growth Tunisian was negative. According to him, this result can be explained by the rational expectations of agents who reduce their investments to protect themselves against an increase in future taxes. Based on a sample of 38 countries at different levels of development, Kumar and Woo (2010) came to the conclusion that external debt has a negative impact on economic growth, but the magnitude of this impact depends on the level of economic growth. development of the country. Indeed, developing countries suffer more from the negative impact of external debt on growth because of financing difficulties in the international financial markets.

Proponents of mixed impact: There are also studies that highlight debt thresholds to explain the effect of external debt on growth. For example, in a study of external debt and growth in a panel of developing countries, the IMF (2002), assuming that heavy debt impedes growth, concluded that as debt increases and accelerates as the debt decreases. This study relied on multiple regression analyzes to verify the link between debt and growth. It took into account the determinants of growth such as per capita income, investment rate, population growth rate, external shocks and macroeconomic policies. It turned out that debt is linked with growth by an inverted U-shaped relationship. The impact is initially positive, but when debt ratios rise above a certain threshold, debt begins to negatively affect growth. But the authors of this study have not been able to specify the level of the threshold beyond which debt begins to negatively affect growth. This threshold should, in our opinion, constitute the optimal level of the debt ratio. Nevertheless, in a study of a panel of 69 countries, Patillo C., Poirson H. and Luca A. Ricci (2002) estimate that debt has a negative impact on growth when its net present value exceeds 35 to 40% of GDP or 160 to 170% of exports. These are thresholds similar to those found by J.M. Imbs and Ranci ere R. (2005) in a study devoted to 87 developing countries over the period 1969-2002. These results suggest that doubling the level of debt slows annual per capita growth by about 1/2 to 1 percentage point, whether in terms of per capita physical capital growth or total productivity growth factors.

From this review of the literature, the following conclusions can be drawn:

- The external debt induces positive and negative effects on economic growth;
- The extent of these effects depends on how the authorities manage the debt.

Empirical study: This section seeks to verify whether there is a linear relationship between economic growth and Congo's external public debt over the period 1975-2015. For this, the growth model and the control variables are presented.

Presentation of the growth model: In the economic literature, economic growth depends on several factors. Among these factors, we have chosen, in the growth model we used, the most significant from our point of view, in the case of the Congo. It is the gross fixed capital formation relative to the GDP, the ratio trade balance / GDP, ratio of public expenditure to education / GDP, population growth rate and terms of trade index. These factors constitute control variables, the interest variable being public debt as a percentage of real GDP. The dependent variable of the model is, of course, the rate of real GDP growth. The data used are those of the World Bank, the International Monetary Fund and the African Development Bank. They concern the period from 1975 to 2015.

The growth model used is a quadratic equation of the form:

$$tc_t = atc_{t-1} + \beta X_t + \epsilon_t \quad (1)$$

with:

- tc_t : growth rate for the year in question;
- X : set of variables of interest;
- ϵ_t : the error term;

The empirical equation deduced from the model can be written in the following way:

$$tc_t = \alpha_{\text{pib}, t-1} + \beta_1 \text{GFCF}_t + \beta_2 \text{FID}_t + \beta_3 \text{Term} + \beta_4 \text{DEXP} + \beta_5 \text{DT}_t + \beta \text{DT}_t^2 + \epsilon_t \quad (2)$$

With:

- tc_t : economic growth rate;
- GFCF: gross fixed capital formation as a percentage of GDP;
- FID: foreign direct investment as a percentage of GDP;
- Term: the terms of trade index;
- DEXP: External debt related to exports;
- DT^2 : external public debt as a percentage of GDP squared;
- BCT: Balance of trade balance as a percentage of GDP;
- ϵ_t : random disturbances.

Presentation of the control variables: Control variables are inserted into the model because the public debt is not the only explanatory factor for economic growth. It is important to show the relationship between all these variables and economic growth.

Gross fixed capital formation (GFCF): Gross fixed capital formation (GFCF) is considered one of the factors that have a positive effect on economic growth. Indeed, an increase in investment leads to an increase in national income. However, the level of consumption depends on the level of income. The increase in consumption stimulates production, which in turn

leads to an increase in national income, a source of consumption and thus of economic growth. This so-called multiplier effect acts to ensure that increased investment results in a more than proportional increase in output (Keynesian theory).

Investment and Foreign Direct Investment (FDI): The investment is the acquisition of fixed capital. All economic theories consider it as a major factor of growth. On the other hand, they oppose its determinants and how it affects growth (Bouloud, 2013). Adam Smith (1776) and David Ricardo (1819) are the first to lay the groundwork for a theory of growth. Both show growth as a result of the accumulation of capital, that is, the quantity of instruments available to workers. Adam Smith believed, moreover, that the mechanism that tends to propel the economy towards indefinite growth rests on the division of labor, that is to say the primary international specialization. In the middle of the 20th century, Domar E. (1946) shows in an article that developing countries have low growth because of an insufficient stock of capital. This low level of capital means that the level of investment is low. What makes Lewis W. Arthur (1954) say that the central fact of economic development lies in the rapid accumulation of capital. It is in this context that Rostow (1960), in the stages of growth, describes the take-off stage as proceeding from an increase in investment of 5 to 10% of income. It shows that a \$ 4 billion increase would be required to drive steady growth in Asia, Africa and Latin America.

Human capital: By the early 1960s, Becker had articulated his theory of human capital that presented education and vocational training as investments that rational individuals sought to optimize. In this line, Lucas considers that the stock of knowledge (that is human capital) is a growth factor. That is why we will test the effect of public spending on education on economic growth.

Demography: The population has a positive effect on economic growth. It determines the size of the market and the level of consumption. The latter, as a component of aggregate demand, has a multiplier effect on the level of production (J.M. Keynes, 1936). In the years 1950-1960 there was a strong demographic growth which is explained by the combination of two phenomena: an increase in life expectancy (and thus the decline in mortality) and the maintenance of high fertility. With the exception of Africa, this demographic surge has had a positive effect on economic growth by playing on labor, consumption and investment. We will also test the hypothesis of a positive effect of demography on economic growth.

Terms of trade: The terms of trade characterize the evolution of the prices of the exported products in relation to the prices of the imported products. In the economic literature, many economists argue that resource-exporting countries are expected to grow relatively slowly due to the deterioration of their terms of trade (Prebisch and Singer, 1950). Others emphasize the quality of institutions in determining the impact of natural resources on economic growth (Robinson et al., 2006). For example, the so-called "natural resource curse" theory supports the view that an improvement in the terms of trade of natural resources has a negative impact on economic growth. This theory shows, in fact, that rent seeking leads to the realization of unproductive and therefore unprofitable activities which have a negative influence on growth. In a comparison of the relationship between terms of trade and

economic growth in Nigeria and Botswana, Fosu A. and Gyapong A. (2010) concluded that the terms of trade have had an impact positive on growth in Botswana, while in Nigeria the opposite was true. According to these authors, this difference in impact is due to the stability of the institutions in Botswana since independence in 1966, while Nigeria has since independence, in 1960, several coups and two civil wars. Congo exports mainly raw materials, especially oil. The latter accounted for 82% of exports during the study period. However, oil, like all natural resources, is a product with very volatile prices. But most of its imports consist of manufactures and foodstuffs from industrialized countries. Their prices are relatively stable.

Trade balance: In the Keynesian approach, net exports constitute one of the components of final demand ($Y = C + I + G + (X-M)$). Thus, a surplus trade balance ($X-M > 0$) has a positive effect on the external demand for local products, which stimulates production and promotes growth. Moreover, a deficit trade balance has a negative effect on growth. The trade balance is also associated with commercial openness.

Presentation of the results of the study: To achieve the results of the study, we used the stationarity and cointegration test. The econometric method used is the error correction model. This model consists of modeling a non-stationary variable using an explanatory variable that is also non-stationary. The tests were performed using EVIEWS software. To analyze the stationarity of variables, we used the Dickey and Augmented Fuller (ADF) test.

The variables tested are the following:

- **dpe:** ratio of public expenditure on education to GDP;
- **SDEXP:** debt service related to exports;
- **BCT:** trade balance relative to GDP;
- **GFCF:** Gross fixed capital formation relative to GDP;
- **DT:** external public debt as a ratio of GDP;
- **idepib:** foreign direct investment relative to GDP;
- **Tech:** index of terms of trade;
- **ouvcom:** commercial opening;
- **TS:** school enrollment rate.

This test, which comes before the estimation of the model, aims to make all the variables stationary. In fact, when the variables used in the model are not stationary, the estimation of the coefficients by least squares method (MCO) and the tests of the t-students and Fisher which one preceded do not allow having the expected results. In other words, the coefficients whose estimation has been made do not converge to their real value. In this case, the regressions operated are said to be misleading.

As a result of this test, apart from the ratio of government expenditure to GDP (dpe), which is stationary from the beginning, the other variables have become only the first difference. The results of the stationarity tests and the error correction model are presented in the tables below: The results summarized in the table indicate that apart from the public expenditure related to education, all the other variables are not stationary in level but become the first difference. Thus, it is the first-difference variables that are used in the least-squares linear regression model (OLS). The results of this model are presented in Table 2 below:

Analysis of results, criticism and recommendations: This section discusses the results obtained from the EVIEWS software and makes recommendations for economic policy.

Results analysis: The results show that the debt had a significant negative impact on Congo's economic growth during the study period. This raises the problem of the sustainability of Congo's external public debt. Indeed, it is accepted that a public debt is sustainable when it generates economic growth higher than the growth of the real interest of the bonds. In this case, budget revenues grow faster than the interest on the public external debt. This negative impact of public debt on growth confirms the results of Granger's Wallace (1981) tests for OECD countries. In this study, the author has shown that increasing public debt has a negative impact on growth. From this point of view, as far as the Congo is concerned, there is a non-linear correlation between economic growth and external public debt. Indeed, it can easily be observed that a high level of public debt leads to higher debt burdens, which negatively affects public investment and thus the rate of economic growth. Similarly, low growth reduces public investment and pushes governments to resort to additional indebtedness. This situation can be illustrated in Figure 1.

The chart above shows a steady rise in public debt between 1975 and 1997. During this period, real GDP remained relatively stable. The sharp increase in real GDP observed in 2006 and especially between 2010 and 2014 can be attributed to the external debt cancellations that the country has benefited from by reaching, in 2006, the decision point and above all, in 2010, the completion point of the HIPC initiative. The resources to be used to pay the debt service allocated to public investments, which helped sustain growth. The study, however, could not determine the reversal threshold of the positive effect to the negative effect of Congolese debt on economic growth because the t-student of the debt squared is not significant. But, it is clear that too much public debt relative to GDP has a negative effect on growth. One of the consequences of this situation is the "snowball effect" of the public debt. Indeed, the rise in interest rates due to the risk of non-repayment pushes the state to contact new loans to face the debt service. To avoid this situation, the state must raise taxes and / or reduce public spending. But this so-called austerity policy also has negative effects on growth as it reduces the demand for economic agents (consumption and investment). The debt-to-export service ratio (SDEXP) also had a negative impact on Congo's economic growth between 1975 and 2015. In fact, the rise in debt service led to a fall in public investment, particularly in the capital stock human resources (education and health) and physical infrastructure (roads, bridges, etc.). This situation is particularly characteristic of the 1980s and 1990s. During this period, the Congo implemented a plan of austerity measures under the control of the Brettonwoods institutions (International Monetary Fund and World Bank). This so-called structural adjustment program (SAP) has not produced the desired effects, including the sustainability of the public debt and the economic recovery. In order to counter the negative effects of this program on the social sectors, the donor countries had set up, as early as 1996 in Cologne, an initiative for highly indebted poor countries (HIPC) aimed at the outright cancellation of a significant part of the external public debt of these countries.

Table 1. Variables stationarity test

Variable	Test statistics in level	Critical value at 5%	Difference test statistics	Critical value at 5%
TS	-1.319761	-2.938987	-3.674942	-2.938987
SDEXP	-1.379947	-2.938987	-10.19155	-2.938987
GDP	1.909615	-2.936942	-3.880061	-2.938987
BCT	-1.748016	-2.936942	-6.446549	-2.938987
GFCF	0.084476	-2.936942	-5.733022	-2.938987
DT	-1.174714	-2.936942	-5.769761	-2.936942
idepib	-1.551263	-2.936942	-6.833469	-2.938987
Tech	-0.171869	-2.936942	-6.173969	-2.941145
dpe	-3.630378	-2.938987		
ouvcom	-1.500571	-2.936942	-5.733966	-2.938987

Source: Author from the EVIEWS software results

Table 2. Linear regression model

Dependent Variable: D(GDP)				
Method: Least Squares				
Date: 08/30/18 Time: 15:21				
Sample (adjusted): 1976 2015				
Included observations: 40 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DT)	-0.001603	0.000419	-3.828249	0.0006
D(SDEXP)	-0.010359	0.004734	-2.188418	0.0361
D(FDI)	-5.00E-05	9.16E-05	-0.545735	0.5890
D(TECH)	0.200616	0.312624	0.641718	0.5256
D(BCT)	0.022426	0.044293	0.506305	0.6161
D(DPE)	-0.098085	0.042841	-2.289509	0.0288
D(GFCF)	0.002919	0.000756	3.858795	0.0005
C	0.234915	0.046480	5.054081	0.0000
R-squared	0.520514	Meandependent var		0.283250
Adjusted R-squared	0.415626	S.D. dependent var		0.360382
S.E. of regression	0.275491	Akaike info criterion		0.436335
Sumsquaredresid	2.428655	Schwarz criterion		0.774111
Log likelihood	-0.726704	Hannan-Quinn criter.		0.558464
F-statistic	4.962590	Durbin-Watson stat		1.398580
Prob(F-statistic)	0.000697			

Source: Author, from EVIEWS software

It is in this context that the Congo reached, in 2010, the completion point that led to the erasure of a substantial part of its public debt.

Foreign direct investment (FDI): Also had a significant negative impact on growth. This situation can be explained by the fact that the FDI received mainly concerned the oil sector. This sector, which constitutes a little more than half of Congolese GDP, is very capital intensive. It employs very little manpower and does not allow a technological diffusion. Its training effects on other sectors of activity are therefore very low. Graph 1 shows that FDI has increased fairly steadily while the growth rate has remained relatively low between 1975 and 2004. From this last year to 2009, FDI has significantly and the level of real GDP has remained relatively high but unstable. From 2010 to 2013, there was a drop in FDI in Congo as GDP continued to grow until it reached its peak. The spectacular rise in FDI from 2014 corresponds to a significant decline in real GDP.

Gross fixed capital formation had a significant positive impact on economic growth, as evidenced by the EVIEWS software results. This can be seen in Figure 1. This graph shows that GDP varies almost in the same direction as GFCF. Except for the situation in 2015 marked by a fall in GDP, each time the GFCF increases, the GDP also increases. This situation can be explained by the fact that in recent decades the Congo has had physical infrastructure that has had a significant positive impact on the level of trade in the country, and therefore on growth. The results obtained from the EVIEWS software also show that the ratio of public expenditure on education to GDP also had a negative impact on the economic

growth of the Congo during this period. It can easily be seen (Chart 2) that strong growth rates were achieved between 1979 and 1982, while the share of education expenditure in GDP has trended downward. This means that the country has a low marginal propensity to invest in education. This situation is all the more worrying since most studies on the impact of human capital on growth highlight the need to invest enough in education to boost growth. In the specific case of Congo, the inadequacy of public spending on education is compounded by the inability of public authorities to match training with employment. Other variables such as the terms of trade and the balance of the trade balance did not have a significant impact on Congo's economic growth between 1975 and 2015. However, it can be seen that Congo's terms of trade have improved significantly since 1999 due to an upward trend in oil prices. However, the insignificant impact of the terms of trade on economic growth can be qualified by the fact that the study took into account the evolution of real GDP. GDP has therefore been calculated at constant prices while the terms of trade reflect the evolution of prices (exports versus imports).

Criticism and recommendations: This subsection examines the factors that limit the contribution of public debt to growth in the Congo and proposes a series of economic policy measures to be implemented.

Criticism: The contribution of external public debt to Congo's economic growth is limited by several factors. Among these factors we can retain three essential factors:

- poor management of the debt;
- unproductive investments;
- bad business climate.

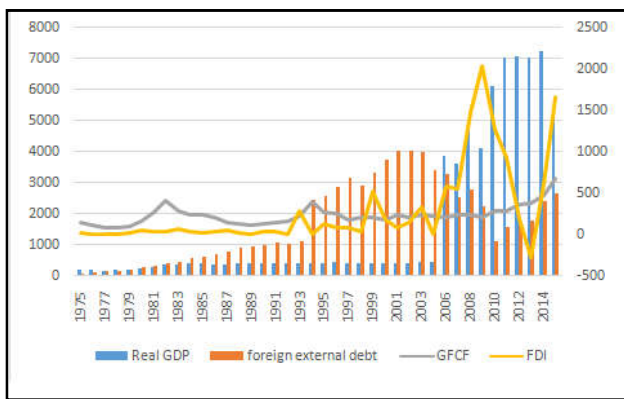
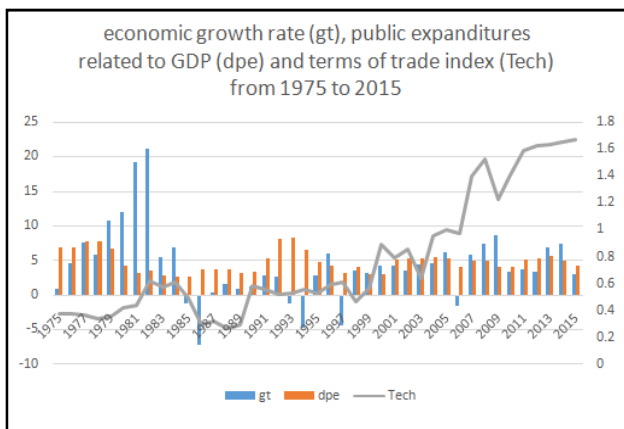


Figure 1. Real GDP, external debt, gross fixed capital formation and FDI from 1975 to 2014



The weak management of the debt: Debt is a problem in the Congo because of unorthodox practices. Indeed, sound debt management implies the application of prudential standards issued by the international financial institutions. Congo is characterized by a lack of national debt strategy and strategy. As a result, there are no concerted actions between debt management bodies. The mismanagement of Congolese debt has been pinned by the latest IMF reports. These reports showed that the country did not have control of the stock of public debt and that the latter was the work of three main actors, namely the Ministry of Finance, the National Oil Company of Congo (SNPC) and the ministry in charge of major works.

Non-performing investments: The loans contracted during the period of the five-year plan (1982-1986) were mainly used for the construction of communication infrastructures whose profitability is quite low and deferred. Over the past decade, the Congo has embarked on a policy called *accelerated municipalization* in which the country spent a lot of financial resources. Similarly, the infrastructure built under this policy is, in our view, essentially unproductive. This is the case of presidential palaces, secondary airports or stadiums. Other infrastructure required significant investment and remained unfinished. This is the case of general hospitals built simultaneously in all departments of the country.

The bad business climate: The World Bank's various reports on the business climate in the world rank Congo among the last countries. This means that the business climate in the Congo is not conducive to the development of the private sector. This sector is considered as the pillar of the diversification of the Congolese economy.

The quality of public expenditure explains the gap between the financial realization and the physical realization of public investment projects. As a result, despite the funds invested, the country still suffers from a lack of infrastructure. Corruption and political instability are also among the causes of the poor business climate in the Congo. Corruption perception reports also rank Congo among the countries where corruption is endemic.

Economic policy recommendations: The exit of excessive debt situations generally requires the implementation of a comprehensive approach. The latter should, on the one hand, promote growth and, on the other hand, ensure the sustainability of the public debt. Indeed, the study showed that the higher the growth, the more the debt is sustainable, while a too high level of debt paralyzes growth. To make Congo's external debt growth-friendly, the following suggestions can be made:

- Implement debt reduction strategies with the support of development partners, including international financial institutions (IMF and World Bank);
- to respect the convergence criteria of the Central African Economic and Monetary Community, in particular that relating to public debt, which should not exceed 70% of GDP;
- promote sub-regional integration in order to widen outlets for local products and thus improve the profitability of public investments and the solvency of the State;
- direct external financing towards activities whose impact on growth is proven and avoid using them in unproductive investments;
- allocate oil revenues to the development of other sectors of the national economy in order to ensure qualitative, cross-sectoral diversification (agriculture, industry, services) that would prevent the country from being held hostage by external shocks destabilizing its budgets;
- strengthen human capital to make growth inclusive, endogenous and sustainable;
- Continue the policy of construction and rehabilitation of socio-economic infrastructure whose positive impact on growth was highlighted in this study;
- implement measures to improve the business climate, as approved by development partners and especially those relating to the fight against corruption;
- improve the quality of institutions and governance through a real separation of powers.

Conclusion

The objective of this study was to determine the impact of external public debt on Congo's economic growth over the period 1975-2015. This is a burning issue that opposes many authors who have been classified in this study into three groups. The first is that of those who subscribe to a Keynesian logic by estimating that public debt has a positive effect on economic growth. From this point of view, indebtedness is a source of growth in that it allows the country to have the necessary capital for investment. The second group relates to the authors who are part of a liberal logic based on the idea that the repayment of public debt requires a future tax that negatively affects future growth. As a result, any increase in the public debt weighs on future generations by a reduction in

their disposable income, which reduces future growth. Finally, the third group is that of authors who believe, for their part, that the public debt has a negative effect on economic growth only in case of over-indebtedness. The problem is that it is necessary to determine the inversion point from which the transition from the positive effect to the negative effect can occur, that is to say the threshold of over-indebtedness. The studies carried out on this subject did not lead to the same result. This means that the over-indebtedness threshold differs between countries or for the same country at different times. Nevertheless, these empirical studies have the advantage of showing for each studied case the point of inversion or threshold of over-indebtedness. In other words, they make it possible to determine the debt ratio at which public debt has a negative effect on growth. As a result, any increase in the public debt weighs on future generations by a reduction in their disposable income, which reduces future growth. Finally, the third group is that of authors who believe, for their part, that the public debt has a negative effect on economic growth only in case of over-indebtedness. The problem is that it is necessary to determine the inversion point from which the transition from the positive effect to the negative effect can occur, that is to say the threshold of over-indebtedness. The studies carried out on this subject did not lead to the same result. This means that the over-indebtedness threshold differs between countries or for the same country at different times. Nevertheless, these empirical studies have the advantage of showing for each studied case the point of inversion or threshold of over-indebtedness. In other words, they make it possible to determine the debt ratio at which public debt has a negative effect on growth.

According to the studies, this threshold varies between 30% and 60% of the public debt relative to GDP. To measure the impact of public debt on GDP, the data on the variables used in the growth model and the cointegration tests are those published by the international financial institutions, including the IMF, the World Bank and the African Development Bank. The stationarity tests were carried out to make all the variables stationary and thus avoid the fallacious results. The results obtained from the EViews software have shown that global external debt and debt service have had a negative impact on economic growth. The study found a non-linear relationship between the public debt and the economic growth of the Congo over the period 1975-2015. In other words, there would be no precise threshold at which the debt has had a negative impact on growth. However, the results of the linear regression model have shown that high export debt service is synonymous with low growth. However, over-indebtedness increases this ratio and can therefore be considered harmful for growth. That said, our main assumption, namely the external public debt of the Congo has had a negative impact on growth between 1975 and 2015 has been validated.

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