

## *Original Paper*

# The Institutional Dimension of Public Financial Governance and Public Sector External Debt in Guinea

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Received: October 17, 2019      Accepted: October 28, 2019      Online Published: November 21, 2019  
doi:10.22158/jepf.v5n4p431      URL: <http://dx.doi.org/10.22158/jepf.v5n4p431>

### ***Abstract***

*Through an institutional approach, this article seeks to address the problem of public finance governance and the external debt of the public sector in Guinea. As a result, based on the main theoretical and conceptual contributions relating to public finance governance and public sector external debt, we have devised a theoretical conceptual model that theoretically reflects the influence of public finance governance on public external debt. We tested this model using the linear correlation method, regression and modeling. The results showed a significant influence of the institutional dimension of the governance of public finances on public external debt in Guinea through the components: quality of macroeconomic management and debt policy.*

### ***Keywords***

*Governance, public finances, public external debt, public sector*

## **1. Introduction**

The Governance of public finances presupposes “the legitimate use of power or authority in the management of public financial resources, of a country with integrity, transparency, accountability, equity and result orientation, to promote development”(1). As such, two key factors in the governance of public finances are advanced by the international financial organizations: ensuring sound management of public finances and effective budget control (IMF, 2001). Indeed, in Guinea the lax management of public finances by the military regimes, during the years 1985 to 2010 (MEF, 2012), led to a macroeconomic instability and an increase in the public external debt rate which had reached 109% GDP in 2006 (MEF, 2012). Foreign exchange reserves ran out within a month of imports. Following the

regime change that took place in 2010, the new authorities made a number of institutional reforms, including upgrading the institutions in charge of budget preparation, reconstituting the tax administration, strengthening the audit and control institutions of the country budget, public procurement reforms (MEF, 2012). From there, we seek elements of answer to the question “to what extent the institutional dimension of the governance of public finances, contributes to improve the external debt of the public sector in Guinea”?

The purpose of this paper is to empirically evaluate the impact of the institutional dimension of public finance governance on public external debt through a positivist posture and a deductible hypothetico approach. To do this, we first proceed to the conceptual and theoretical framing of public finance governance and the external debt of the public sector (2). Subsequently, we present the methodological approach of our empirical study (3). Finally, we test hypotheses for research and discuss the results (4).

## **2. Conceptual and Theoretical Framework of Public Financial Governance and Public Sector External Debt**

### *2.1 Literature Review of the Concept of Public Governance and Its Perception by International Economic Institutions and the International Community*

The literature on the emergence of the concept of public governance in the second half of the 1990s is dominated by the work of international and regional economic and financial institutions as well as the international community, notably the World Bank (WB), the International Monetary Fund (IMF) and the African Development Bank (AfDB), the Organization for Economic Co-operation and Development (OECD) and the United Nations Development Program (UNDP).

Indeed, the World Bank, whose work has widely disseminated the concept of governance, defines public governance as “the way in which power is exercised in the management of the economic and social resources of a country in the service of development “(World Bank, 1992, p. 09). In its 1992 report, it distinguishes three aspects of governance: the form of a political regime, the processes by which authority is exercised in the management of a country’s economic and social resources, and the capacity of a government. to design, formulate and implement policies and the general way of carrying out government functions (World Bank, 1992). To this end, this vision of the World Bank is also shared by the International Monetary Fund (IMF) with the only difference that this one in its analysis makes no distinction between governance and public management. For the International Monetary Fund, the notion of governance or public management, as it is generally understood, covers all aspects of governance, including economic policies and the regulatory framework (IMF, 1997).

However, this global vision of Bretton woods (Note 1) financial institutions on governance, while widely held by many regional institutions and some organizations in the international community, leaves room for divergence in the approaches taken by each country they. This is the case, for example, with the African Development Bank, which favors rather the most relevant aspects of public governance. This, in terms of its public finance management mission, business environment and

macroeconomic governance (AfDB, 2012). In this logic, the ADB establishes a correlation between governance and sound management of public finances, investment and development. It considers that “development can only be beneficial when States are able to collect and invest appropriately. They must ensure the effective, efficient and equitable delivery of public services, secure property rights and adopt predictable regulations for the smooth functioning of markets” (AfDB, 2012, p. 18). States that fail to meet the needs of their citizens or find themselves in a situation of conflict or instability risk driving their population into the poverty trap (AfDB, 2012).

For the OECD whose work falls within the logic of the World Bank governance is “synonymous with the use of political authority and the exercise of control in relation to the management of resources of a society in view of economic and social development” (OECD, 1995, p. 14). This conception of governance highlights participatory development, human rights and democratization. It also identifies important dimensions of governance, including law enforcement, good public sector management, fighting corruption and reducing military spending (OECD, 1995). The United Nations Development Program (UNDP) equates governance with “the exercise of political, economic and administrative authority to manage a country’s affairs. It is based on the mechanisms, processes and institutions that allow citizens and groups to express interests, settle disputes and have rights and obligations” (UNDP, 2003, p. 36). In this approach, UNDP identifies three levels: the state (legislative, judicial, executive and military), creates a conducive political and legal environment; the private sector (from small to large businesses) creates jobs and incomes; and civil society (non-governmental and community organizations, professional associations, religious groups, women’s organizations and all citizens), facilitate political and social interaction.

However, in public finances, the definition of governance adopted in this research is similar to that of the World Bank and the African Development Bank. It is the legitimate use of power or authority in the management of public financial resources, a country with integrity, transparency, accountability, equity and a focused orientation on the outcome (World Bank, 1992; AfDB, 2012).

## *2.2 Definition of the Concepts of Public Debt and Public External Debt*

Debt is a multidisciplinary concept that is the subject of abundant literature, particularly in economics and law. Indeed, in the legal vocabulary “debt is the obligation for a debtor in respect of another creditor to pay a sum of money. It is also a commitment to repay a sum of money lent at a certain time and price agreed in advance” (Cornu, 1996). In public finances, the public debt is defined as “being the entire debt of public persons, that is to say public liabilities contracted with respect to various creditors” (Percebois et al., 1995, p. 63). In a more limited way, the public debt “is the totality of the loans contracted by the State. It can be a debt flow over a year or a stock of outstanding debt at a given date or a cumulative sum of unpaid flows. It is also a sum of loans contracted and current account overdrafts of the Treasury at the Central Bank” (Percebois et al., 1995, p. 64).

In the lexicon of economy” the public debt is the total of the financial commitments contracted by the State minus the refunds made” (Percebois et al., 1995, p. 63). In financial terminology “public debt”

refers to all the legal obligations of the state at a given moment. Thus, the public debt corresponds to the total amount of the pecuniary obligations contracted by the State as a loan. In other words, it is all the internal or external commitments of the State as a loan, not yet repaid. It is the sum of the amounts owed by the State both internally and externally “(Paul, 1998, p. 87). For the purposes of the Maastricht Treaty, general government debt measures all gross financial liabilities of general government (state, central government, local government, and social security trade credits and accounting discrepancies (Cornu, 1996). This is a gross debt, the financial assets of the general government do not deduce from it. It is consolidated. This means that it excludes the debts between public administrations, in particular the deposits of the local authorities with the Public Treasury (Cornu, 1996).

Indeed, in this research, our analysis focuses on the external indebtedness of the public sector. As a result, the definition adopted is that adapted from the World Bank and the International Monetary Fund. Thus, we consider the public sector external debt as the sum of the contractual commitments of all public sector bodies (State, local authorities, enterprises and public institutions, social security organization) due to non-residents, including obligation to repay the principal and payment of interest in foreign currency, in goods or services (World Bank, 2015). It is contracted by governments, private banks and international or regional economic and financial organizations (World Bank, 2015). The following title analyzes the theoretical framework of public finance governance and public external debt.

### *2.3 Theoretical Framework of Public Finance Governance and Public External Debt: Research Hypothesis*

The Governance practices in public finance take into account the establishment of effective systems for budget preparation and execution, accounting, financial reporting, auditing and the establishment of strong supervisory institutions (African Development Fund, 2014). Public external debt governance requires improving the debt structure to reduce vulnerability to shocks; the development of local markets; building sound debt management practices and improving transparency in the management of indirect debt costs (African Development Fund, 2014). Indeed, in the light of neo-institutional theories including those transaction costs and contracts developed by North (1994), Coase (1960) and Williamson (1987), the problem of governance finds its explanations in the management of public finances. Indeed, for these authors, the institutional environment is characterized by the existence of laws and rules supporting economic activity can generate costs. This requires putting in place contracts to minimize these costs.

From an empirical point of view, the underlying premise of the international financial institutions, especially the World Bank and the International Monetary Fund, is that “the economic performance of a country is a positive function of its institutional performance” (World Bank, 1998, 1989). As a result, the World Bank in its empirical analyzes of some Sub-Saharan African countries, evaluates the quality of institutions in relation to three variables: the quality of the management of public affairs; the

existence of laws protecting private property and their actual application (Kaufman et al., 2001). The International Monetary Fund, for its part, believes that there is a positive link between the quality of formal institutions and the level of gross domestic product per capita. This link is preponderant in three main areas of economic performance. This is the level of income, growth and instability of growth (IMF, 2013).

For the IMF, the quality of institutions is almost the only variable or the main variable for explaining income and economic growth gaps between the center and the periphery (Dioubaté 2011). To this end, according to the International Monetary Fund's studies, the recent experience of sub-Saharan Africa, in terms of the correlation between institution and growth, at the empirical level, seems to show that slow, unstable and weak economic growth is often associated low levels of education and health coverage, political instability, weak financial systems, corruption, government deficits, and inadequate infrastructure (IMF, 2006).

In this, empirical studies conducted by authors such as Daron Acemoglu, Simon Johnson and James Robinson show that among the three determinants of income, namely geography, international trade and institutions, the quality of institutions remains the most important (Acemoglu et al., 2001). These theoretical and empirical observations of the neo-institutional analysis built on North's research dynamics, emphasizing the institutions and ways of action of public organizations, lead us by analogy to formulate our first main hypothesis (H).

H: "The improvement of the institutional dimension of the governance of public finances, is translated by the control of the external indebtedness of the public sector".

Taking into account the different components of the institutional dimension of governance, this main hypothesis are broken down into several sub-hypotheses presented in Table 1 below.

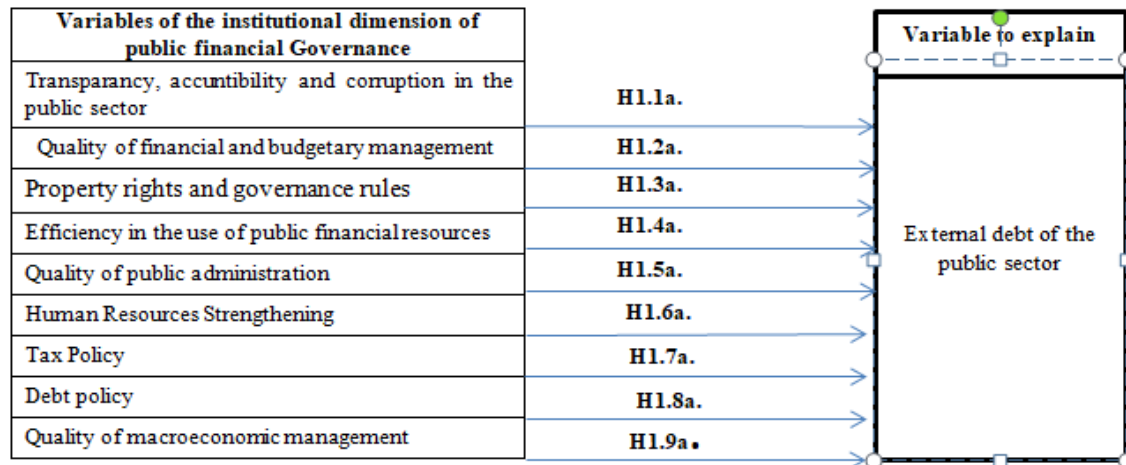
**Table 1. The Sub-hypotheses of the Institutional Dimension of the Governance of Public Finances and the External Indebtedness of the Public**

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<b>H1.1a.</b> Improving Transparency, Reducing Corruption, and Accountability in the Public Sector Lead to Control of Public Sector External Debt
<b>H1.2a.</b> Respect for property rights and rules of governance result in a control of the external debt of the public sector
<b>H1.3a.</b> Improving the quality of public administration leads to a mastery of public sector external indebtedness
<b>H1.4a.</b> Efficiency in the use of public resources translates into a control of the external debt of the public sector
<b>H1.5a.</b> Improving the quality of financial and budgetary management results in a decrease in the external debt of the public sector
<b>H1.6a.</b> The reinforcement of human resources results in a decrease in the external debt of the public sector
<b>H1.7a.</b> Improvement of fiscal policy results in a decrease in public sector external indebtedness
<b>H1.8a.</b> Improved debt policy results in a decrease in public sector external indebtedness
<b>H1.9a.</b> Improving the quality of macroeconomic management results in a decrease in public sector external indebtedness

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These different relationships above allow us to build our first hypothetical-deductive research model of the institutional dimension of public finance governance and public external debt.



**Figure 1. The Conceptual Model of the Institutional Dimension of Governance of Public Finances and Public Outbreak**

Source: developed by ourselves using conceptual and theoretical literature.

### 3. The Epistemological Positioning, the Methodological Approach and the Choice of the Variables of the Empirical Study

#### 3.1 Epistemological Positioning and the Methodological Approach

To study the influence of the institutional dimension of public finance governance on public external debt in Guinea, we adopted a positivist epistemological posture. However, the methodological approach used was diverse. It includes documentary research, discussions with some senior officials of the Ministries of Economy and Finance, Central Banks in Guinea. The empirical study was conducted on the basis of data collected from different sources.

The estimation and interpretation method chosen according to the nature of the data is that of simple and multiple linear regression (Evrard et al., 2003). The processing is performed by the software “SPSS Statistics21”. The selection of the variables to be included in the regression equation was done using two methods: the block method and the step-by-step method (Evrard et al., 2003). The regression results are interpreted globally using simple and / or multiple correlation coefficients, determination, the Fisher-Snedecor test, and the standard error of three-level regression (Evrard et al., 2003).

The first global level focuses on the strength and significance of the link between the variable explained “external debt” and the explanatory variables “institutional dimensions of public finance governance”. The second level corresponds to the contribution of each variable to the overall explanation and the necessity of its presence in the regression equation. The third level examines the residuals to see if the assumptions made in the calculation are true. The interpretation can be done also at the level of each variable by examination of the residues and at the level of the contributions of the

results to the comprehension of the studied phenomenon. The following title presents the measurement of the different variables of the empirical study.

### *3.2 Measurement of the Variables of the Empirical Study*

Consistent with the conceptual model and the theoretical underpinning, we chose nine (9) institutional variables as part of our study. Their choice is due to the fact that they serve the World Bank annually to assess the quality of public sector institutions in developing countries. These are macroeconomic management, tax policy, debt policy, property rights and governance rules; the quality of financial and budgetary management; the efficiency of resource mobilization; strengthening of human resources; the quality of public administration; transparency, accountability and corruption in the public sector. Depending on the criteria specific to the Bank, a score ranging from 1 to 6 is allocated annually to each member country in accordance with the quality of the economic management, the public sector and the institutions of the country concerned. And public external indebtedness is the dependent variable or the variable to be explained.

- **Macroeconomic management in Guinea.** Macroeconomic management assesses the combined framework of monetary policies, exchange rates and demand. The statistics obtained from the survey on the quality of economic management stretch from 2005 to 2015. The ratings given to Guinea for this indicator vary between 2.5 and 3.5 during this period.
- **Tax policy in Guinea.** It appreciates the short- and medium-term sustainability of the policy implemented in tax management taking into account the monetary policy and the exchange rate policy. It also focuses on the sustainability of the public debt and its impact on growth. The World Bank's assessments of Guinea's fiscal policy from 2005 to 2015 earned it a rating of 2.5 to 3.5 for those years.
- **The debt policy in Guinea.** It assesses the government's strategy for debt management in relation to reducing fiscal risks and long-term debt sustainability. The assessment of the World Bank's debt policy in Guinea shows from 2005 to 2015 a relatively low score of between 2 and 3.
- **Property rights and governance rules in Guinea.** They represent the indicators used by the Bank to assess the extent to which private economic activity is favored by an effective legal system. They also emphasize the existence of a rules-based governance structure in which the priority and rights arising from contracts are reliably applied. Guinea's score for this indicator by the Bank remained constant at 2, from 2005 to 2014, and 2.5 in 2015.
- **The quality of financial and budgetary management in Guinea.** It assesses for each country the existence of a credible and comprehensive budget in relation to political priorities. It also considers the effectiveness of financial management systems and the timely publication of audited accounting and tax reports. The quality of financial and budgetary management in Guinea was rated 3 from 2005 to 2015, except in 2006 where it was 2.25.
- **Efficiency in the mobilization and use of resources in Guinea.** It examines how public expenditures are being used in accordance with national priorities for poverty reduction. It is also

interested in resource mobilization not only tax, but also income from all sources as they are perceived. The Bank's rating for Guinea for this indicator is 3 from 2005 to 2015.

- **Strengthening human resources in the public sector in Guinea.** This indicator is used by the World Bank to assess national employment policies and the provision of services by the public and private sectors in these member countries. It assesses the impact of these policies on access to education services, health care and quality. Guinea obtained, the notes 3 from 2005 to 2010, then 3.5 from 2011 to 2015.
- **The quality of public administration in Guinea.** It assesses the central government's ability to design and implement policies to effectively provide the governed with quality public service. Guinea obtained from the World Bank, grade 3 on the quality of its public sector and institution from 2005 to 2015.
- **Transparency, accountability and corruption in the public sector in Guinea.** This indicator appreciates up to what level leaders are held accountable for the use of funds and the results of their actions by voters, the legislature and the judiciary. It also measures the level of accountability of senior public sector officials to report on the results of their management and administrative decision. An assessment of this indicator in Guinea by the Bank has enabled it to obtain 2.5 notes from 2005 to 2007; then 2 from 2008 to 2012 and 2.5 from 2013 to 2015.
- **The stock of public sector external debt.** In Guinea, the main debtors in the public sector are essentially the public treasury, public enterprises and institutions, local authorities, social security organizations. World Bank data used in our analysis include the stock of external debt of the entire public sector. To this end, in relation to gross domestic product, the external debt ratio of the public sector in Guinea increased from 105% in 2005 to 14% in 2015. This dramatic drop is explained by the fact that the country benefited in 2012 from initiatives of heavily indebted poor countries.

#### **4. Testing of Hypotheses and Discussion of the Results of the Study of the Influence of the Institutional Dimension of the Governance of Public Finances on Public External Debt in Guinea**

The validation of our main hypothesis, which assumes that an "improvement of the institutional dimension of public finance governance results in the control of public external debt in Guinea", is a function of the test results of the nine sub-hypotheses. An assumption is confirmed if one of the two conditions is fulfilled. The first is that the explanatory variable must have an influence on the variable to be explained, in the sense supposed initially (positive or negative). The second is that if the explanatory variable is composed of more than one dimension, at least one dimension must have a significant influence, in the expected direction on the variable to be explained. Therefore, we will first test the hypothesis (4.1), then proceed to the discussion of the results (4.2).



#### *4.1 Hypothesis Test of the Influence of the Institutional Dimension of the Governance of Public Finances on the External Debt of the Public Sector in Guinea*

The relationship between the independent variable “institutional dimension of public financial governance” and the dependent variable “external public sector debt” is examined by linear correlation and simple and multiple regression tests.

**H.** Improving the institutional dimension of public finance governance, translates into lower external public sector debt in Guinea

**H1.1a.** Improving Transparency, Corruption, and Accountability in the Public Sector Leads to a Control of Public Sector External Debt in Guinea

**H1.2a.** The respect of property rights and governance rules results in a control of the external debt of the public sector in Guinea

**H1.3a.** The improvement of the quality of the public administration results in a control of the external debt of the public sector in Guinea

**H1.4a.** Efficiency in the use of public resources translates into a control of public sector external debt in Guinea

**H1.5a.** Improving the quality of financial and budgetary management leads to a decrease in public sector external debt in Guinea

**H1.6a.** The reinforcement of human resources results in a reduction of the external debt of the public sector in Guinea

**H1.7a.** Improving Guinea’s fiscal policy results in a decrease in public sector external indebtedness

**H1.8a.** Improving Guinea’s debt policy results in a decrease in public sector external indebtedness

**H1.9a.** Improving the quality of macroeconomic management results in a decrease in public sector external debt in Guinea

Indeed, according to the results of the linear correlation test, three (3) variables out of nine (9) are significant (see Table 2). These are the strengthening of human resources, the quality of macroeconomic management and the debt policy. The first two variables respectively have explanatory powers of (-0.848) and (0.885) with a significance threshold of less than or equal to 1%. While the third variable has an explanatory power of (-0.677) and a significance threshold of less than or equal to 5%.

The correlation coefficients of these three significant variables are negative. This explains why each of them is inversely correlated to the dependent variable. However, any improvement in any of these independent variables would result in a decline or decrease in the dependent variable. In other words, the strengthening of human resources in the public sector, the improvement of debt policy and the quality of macroeconomic management would favor the reduction of the external debt of the public sector.

**Table 2. Result of Correlation Tests of the “Institutional Dimension of Governance of Public Finances” in Guinea (Independent Variable)**

Variables (independent)	Correlation of Pearson	Bilateral significance	Observation
Transparency, corrup, and accountability in the public sector	0,006	(0,985)	NS
Quality of financial and budgetary management	-0,489	(0,127)	NS
Property rights and governance rules	-0,398	(0,225)	NS
Efficiency in the use of public financial resources	-0,172	(0,613)	NS
Quality of public administration	-0,172	(0,613)	NS
Human Resources Strengthening	-0,848**	(0,001)	Significant
Tax Policy	-0,496	(0,120)	NS
Debt policy	-0,677*	(0,022)	Significant
Quality of macroeconomic management	-0,885**	(0,000)	Significant

*Sources:* Results of our correlation test using IBM SPSS Statistics 21

\*\* The correlation is significant at the 0.01 level (bilateral). \*The correlation is significant at the 0.05 level (bilateral). NS: not significant correlation.

On the other hand, variables such as: transparency, corruption and accountability in the public sector; the quality of financial and budgetary management; property rights and governance rules; the quality of public administration and tax policy had no significant influence on the dependent variable in the correlation test. The significance level of each of these independent variables with the dependent variable is between 12 and 62%. This does not justify the conditions of existence of linear correlation at the threshold of 5%. As a result, these variables are not significant in the correlation. Their influence on the dependent variable “public sector external debt in Guinea” is negligible in the correlation analysis. After the linear correlation test, we continue the analysis of the influence of the independent variables on the dependent variable through the regression test. The goal is to obtain a regression model of the independent variables that can appropriately provide an explanation for the public sector external debt in Guinea. Using simple and multiple “block” then “stepwise” regressions on all independent variables, we arrive at a very satisfactory quality regression model. It can be considered as explanatory of the external debt of the public sector in Guinea. Since 98.8% of the variance of the dependent variable (see Table 3) is returned by four explanatory variables. These are tax policy, quality of macroeconomic management, debt policy, strengthening of human resources. An examination of non-standard regression coefficients (B) shows that the four (4) independent variables selected have different weights and signs in the regression equation. Their significance level is less than or equal to 1%, except for the variable “debt policy” accepted in the regression at the threshold of (6%), since its withdrawal would reduce the value of the adjusted coefficient of determination (Adjusted R<sup>2</sup>).

**Table 3. Overall Adjustment Quality of the Regression Model of the Institutional Dimension of Public Financial Governance**

Indicators	Values
Coefficient of multiple correlation (R)	0,996
Coefficient of determination (R <sup>2</sup> )	0,993
Adjusted coefficient of determination (adjusted R <sup>2</sup> )	0,988
Standard error of the estimate	3,900

Sources: Results of our regression test using IBM SPSS Statistics 21.

**Table 4. Estimation of the Coefficients of the Regression Equation of the Institutional Dimension of the Governance of Public Finances in Guinea**

Variables (independent)	Unstandardized regression coefficient (B)	Coefficient of standardized (B $\beta$ ***)	Student's t-test (t)	Coefficient of correlation simple
Variables included in the regression				
Tax Policy	108,500	1,237	9,478/(0,000) **	-0,496*
Quality of macroeconomic management	-171,500	-2,161	-14,659/(0,000) **	-0,885 **
Human Resources Strengthening	79,500	0,585	4,677/ (0,003) **	-0,848**
Debt policy	-26,500	-0,280	-2,265/(0,064)*	-0,677*
Variables excluded in the regression				
Constant	38,000	-0,280	1,024/(0,345)	NS
Quality of financial and budgetary management	-72,667	-0,463	-1,380/(0,217)	NS
Efficiency in the use of resource	-84	-0,239	-0,592/(0,570)	NS
Quality of public administration	-84,00	-0,239	-0,651/(0,539)	NS
Property rights and governance rules	-81,00	-0,344	-1,025/(0,345)	NS
Transparency, corruption, and public sector accountability	13,00	0,096	-0,241/(0,818)	NS

Sources: Results of our regression test using IBM SPSS Statistics 21

\*\* The parameters are significant at the 1% threshold. \* The parameters are significant at the 5% threshold. NS. The parameters are not significant.

\*\*\* If beta is greater in absolute value than 0.5 it means that the effect is very strong. If it is less than 0.5 the effect is medium.

In the Guinean context, the quality of macroeconomic management (-171.5) has a higher explanatory power of the dependent variable. It is followed by fiscal policy (108.5), human resources strengthening (79.5) and debt policy (-26.5). On the other hand, the variables: the quality of financial and budgetary

management; efficiency in the use of resources; the quality of public administration; property rights and governance rules; Transparency, corruption, and accountability in the public sector are excluded in the regression due to the lack of their influence on “external public sector debt”.

The results of these correlation and regression tests, above, lead us to confirm or refute our hypotheses and sub-hypotheses, taking into account, of course, two cases: the explanatory variable has an influence on the dependent variable in the sense expected from the relationship (positive or negative). If the explanatory variable has several dimensions, at least one of the dimensions must have an impact on the variable explained in the assumed direction (partial validation of the hypothesis). Based on this principle and the results of the regression tests, the sub-hypotheses (H1.8a and H1.9a) are confirmed. And the sub-hypotheses (H1.6a, H1.7a), although significant in the regression, are not validated. This is due to the fact that, in terms of the regression test, the reinforcement of human resources in the public sector and the fiscal policy, positively influence the external debt of the public sector in guinea, according to the sign of the coefficients. This is contrary to the original meaning of these two sub-hypotheses (H1.6a, H1.7a).

On the other hand, the sub-hypotheses (H1.1a, H1.2a, H1.3a, H1.4a, H1.5a, H1.6a, H1.7a,) are rejected, because of the lack of meaning between the independent and dependent variables, which compose them. Thus, we can group the results of the test of the hypotheses of the influence of the institutional dimension of the governance of public finances on the dependent variable in this Table 5 below.

**Table 5. Synthesis of the Hypotheses Test of the Influence of the Institutional Dimension of the Governance of Public Finances on the Independent Variable**

Hypotheses	Explanatory variables	Variable to explain	Validation of Hypotheses
<b>H1.1a</b>	Transparency, Corrupt, and Accountability in the Public sector	NI	Reversed
<b>H1.2a</b>	Property Rights and Governance Rules	NI	Reversed
<b>H1.3a</b>	Quality of Public Administration	NI	Reversed
<b>H1.4a</b>	Efficiency in the Use of Public Resources	NI	Reversed
<b>H1.5a</b>	Quality of financial and budgetary management	NI	Reversed
<b>H1.6a</b>	Human Resources Strengthening	NI	Reversed
<b>H1.7a</b>	Tax Policy	NI	Reversed
<b>H1.8a</b>	Debt policy	I	<b>Confirmed</b>
<b>H1.9a</b>	Quality of macroeconomic management	I	<b>Confirmed</b>

*Sources:* developed by our own care.

In sum, we consider that the “block” and “step-by-step” procedure chosen to select the variables resulted in a regression model combining four explanatory variables (fiscal policy, quality of

macroeconomic management, reinforcement of human resources). Other variables (quality of financial and budgetary management, efficiency in the use of resources, quality of public administration, property rights and governance rules, transparency, corruption and accountability in the public sector) with weak explanatory power are eliminated by regression analysis.

As a result, the sub-hypotheses (H1.8a and H1.9a) are validated by the regression. On the other hand (H1.1a, H1.2a, H1.3a, H1.4a, H1.5a, H1.6a, H1.7a), are rejected by the regression. It must be emphasized that the rejection of (H1.6a, H1.7a), is explained by the fact that they have a sense of meaning contrary to that initially assumed in the formulation. Thus, we can say that the main hypothesis (H1) which supposes that an improvement of the institutional dimension of the governance of public finances is translated by the reduction of the external indebtedness of the public sector in Guinea is partially validated. The following title discusses the influence of the economic dimension of governance on public external debt in Guinea.

#### *4.2 Discussion of the Results of the Test of the Hypotheses of the Independent Variables on Public External Debt in Guinea*

The objective of the discussion of the results is to comment on the variables included and those excluded in the regression equation, but also on the confirmation or the reversal of the sub-hypotheses on the links between the explanatory variables and those explained. . As a result, the main hypothesis to which we have responded states that “an improvement in the institutional dimension of public finance governance results in the control of public external debt in Guinea”. The regression tests carried out made it possible to obtain an equation related to the hypothesis formulated (H). In the regression model, it uses four variables that explain the external debt of the public sector in Guinea (see Table 4).

$$\text{Public Sector External Debt} = e + 108.5 (\text{Fiscal Policy}) + (-171.5) \text{Quality of Macroeconomic Management} + 79.5 (\text{Human Resources Strengthening}) + (-26.5) \text{Debt Policy}$$

The results of the correlation and regression tests on independent variables relating to the different sub-assumptions relating to the institutional dimension of public financial governance highlight the existence of three categories of variables. These are the variables included in the regression equation, the variables excluded in the regression but significant in the correlation matrix and the variables totally excluded from the analysis.

Indeed, in this equation, the variables selected are those that have statistically significant regression coefficients. They include: the quality of macroeconomic management (-171.5); tax policy (108.5); strengthening of human resources (79.5); debt policy (-26.5). These four variables give a model restitution capacity of 98.8% of the dependent variable. The relationships retained in the regression model are significantly positive for fiscal policy and human resource strengthening. They are negative for the quality of macroeconomic management and debt policy. The negative influence of these last two independent variables on the dependent variable goes in the expected direction of the corresponding sub-hypotheses (H1.8a, H1.9a). As a result, the sub-hypotheses (H1.8a, H1.9a) assume that “an

improvement in debt policy and the quality of macroeconomic management result in the reduction of public sector external debt. In Guinea “are confirmed.

While (H1.6a) and (H1.7a) respectively corresponding to the influence of improving tax policy and strengthening human resources on public external debt in Guinea are reversed. It is the same for the sub-hypotheses (H1.1a, H1.2a, H1.3a, H1.4a, H1.5a) which reflect the influence of five independent variables on the external debt of the public sector in Guinea. It’s about transparency, corruption, and accountability in the public sector; property rights and governance rules; the quality of public administration; efficiency in the use of public resources; the quality of financial and budgetary management. These variables were totally excluded in the analysis by the absence of their significant influence on the dependent variable both in the correlation and in the regression.

## 5. Conclusion

This article is devoted to the study of the impact of the institutional dimension of the governance of public finances to public external debt. As a result, we focused our analysis essentially on three levels. The first level concerns the conceptual and theoretical framework in which we have defined and delimited the concepts of financial governance and public external debt through a review of the literature. An exploration of neo-institutional theories allowed us to formulate our research hypothesis and subsequently developed a conceptual model relating to the influence of the institutional dimension of public finance governance on public external debt. The second level of methodology allowed us to study the influence of the institutional dimension of public finance governance on public external debt in Guinea by adopting a positivist epistemological posture. And the methodological approach very diverse, has included documentary research, discussions with some senior officials of the Guinean public administration. The empirical study was conducted using secondary data collected from various sources including national and international sources. The processing and analysis of the data is carried out by the software “SPSS statistics21”.

The third level concerns the testing of hypotheses and discussion of the results of the influence of the institutional dimension of public finance governance on public external debt. The results of the hypothesis tests allowed us to partially validate the main hypothesis relating to the influence of the institutional dimension of public finance governance on public external debt in Guinea in its political debt component and macroeconomic management. While the components: fiscal policy, strengthening of human resources, quality of financial and budgetary management, efficiency in the use of public resources, quality of public administration, transparency, corruption, and accountability in the public sector, do not influence the external indebtedness of the public sector in Guinea. Consequently, the corresponding sub-hypotheses are rejected. This allowed us to confirm that the improvement of the institutional dimension of the governance of public finances contributes partially to the control of public external debt in Guinea. However, it must be emphasized that this study has its limits. It is built on the basis of secondary data collected from several sources whose reliability is limited. It deals only

with the impact of a single dimension of public finance governance on public external debt among the three, notably institutional, economic and social. This makes it possible to think in future researches of an evaluation of the impact of controlling public external debt on the social dimension of governance.

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## Note

Note 1. The Bretton Woods Institutions are the Bretton Woods Agreements of July 22, 1944, in the United States. These are the economic agreements that outlined the international financial system in 1944, after which the World Bank and the IMF were created. Their main objective was to set up a global monetary organization and to promote the reconstruction and economic development of war-affected countries.

## Appendix

### Annex 1. Chart Showing the Evolution of the Quality of Public Sector Management and Institutions in Guinea

Years	Property Rights and Governance	Quality of financial management and budget	Efficiency of resource utilization	Quality of public administration	Transparency accountability corrupt, in the public sector	Human Resources Strengthening
2005	2	3	3	3	2,5	3
2006	2	2,25	3	3	2,5	3
2007	2	3	3	3	2,5	3
2008	2	3	3	3	2	3
2009	2	3	3	3	2	3
2010	2	3	3	3	2	3
2011	2	3	3	3	2	3,5
2012	2	3	3	3	2	3,5
2013	2	3	3	3	2,5	3,5
2014	2	3	3	3	2,5	3,5
2015	2,5	3	3	3	2,5	3,5

Sources: World Bank Development Indicators.

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### Annex 2. Table Showing the Evolution of the Quality of Guinea's Economic Management from 2005-2015

Years	Macroeconomic management	Tax Policy	Debt policy
2005	2,5	3	2,5
2006	2,5	3	2,5
2007	3	3,5	2,5
2008	3	3,5	2,5
2009	2,5	2,5	2
2010	2,5	2,5	2
2011	3	3	2,5
2012	3,5	3,5	3
2013	3,5	3,5	3
2014	3,5	3,5	3
2015	3,5	3,5	3

Sources: World Bank Development Indicators.

Retrieved June 16, 2017, from <http://www.mondointl.cirano.qc.ca/pilar-1-public-institutions-2>

### Annex 3. Chart of Changes in Public External Debt Outstanding in Millions of US Dollars

Years	Total stock public external debt	
	En millions de \$US	% PIB
2000	3091800	88
2001	2924009	90
2002	3168691	92
2003	3177907	85
2004	3402605	87
2005	3362510	105
2006	3437989	109
2007	3574536	81
2008	3411875	70
2009	3414558	68
2010	3381294	64
2011	3329478	61
2012	1380755	19
2013	1404395	17
2014	1419739	15
2015	1389380	14

Sources: World Bank Development Indicators.

Retrieved June 16, 2017, from <http://www.mondointl.cirano.qc.ca/pilar-1-public-institutions-2>