

The determinants of domestic resources mobilization in Togo: the case of public revenues^x

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Abstract

Like many developing countries, Togo is facing a deficit of financial resources that leads to a dependence on international financial institutions. A better mobilization of internal resources could allow this country to reduce its deficit of resources and better control its process of economic development and poverty reduction. This is why in this article; we analyzed the determinants of public revenues in Togo. To which we have made using an error correction model suggest that per capita income, value added manufacturing and mining and the opening on the outside are the main factors that positively influence public revenues. Agriculture is essentially subsistence and thus weakly imposed, its added value has no significant effect on the public revenues.

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1 Introduction

One of the main objectives of the Millennium Development Goals (MDGs) adopted in 2000 at the Millennium Summit is to cut by half the level of absolute poverty by 2015 (MDG 1). If some developing countries have made good progress

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towards the achievement of MDGs, it is uncertain that Togo will be able to do so. Indeed, in 2006, 61.7% of Togolese were affected by poverty. In 2011, the incidence of poverty has only decreased by three percentage points to reach 58.7%. One of the main reasons why the incidence of poverty is high in Togo is that the rate of economic growth is significantly lower than the 7 to 8% rates required to reduce poverty by half by 2015. For example, in 2009, the rate of economic growth was 3.2%; against 4% in 2010. For 2011, it was estimated at 4.9%.

To stimulate growth and maintain its rate at a level which will significantly reduce poverty, Togo should significantly increase its share of resources devoted to development in general, and in particular to poverty reduction programs. However, the revenues of the government of Togo strongly suffered of the socio-political crisis that the country has been through from the beginning of the 1990s. The critical point has been reached in 1993, year in which tax revenues were only 28.3 billions CFA Francs, against 75.3 billions CFA Francs in 1990. Since 2006, reforms have been undertaken to improve the collection of taxes through enlargement of the tax base, improvement of tax collection, Treasury reforms, decentralization (with the establishment of regional branches of tax administration) and computerization of tax collection services. It resulted in a strong increase in government revenues from 195.9 billions CFA francs in 2006 to 296.9 billions CFA francs in 2010, representing an increase of 51.5%. Despite the increase of public revenues in recent years, the rate of taxation is always less than the rate of 17% set by the West African Economic and Monetary Union (WAEMU) which indicates the low performance of the Togolese tax system.

In making a better mobilization and use of its domestic financial resources, Togo can reduce its resource deficits and speed up its process of economic development and poverty reduction. Moreover, a lesser dependence on external resources would promote a greater "ownership" of its development process, because these resources could be used to finance the priorities of the country rather than those of donors.

This paper is mainly focused on the determinants of government revenues, and the effectiveness of public expenditure an engine for of economic development. Public spending could be essentially used to develop human capital and fund basic public services such as education, health and infrastructure necessary for the development of the private sector.

The rest of the article is organized as follows. Section 2 is devoted to the literature review. Sections 4 and 5 are respectively related to the methodology, the study results and the conclusion.

2 Literature review

In Africa, the weak mobilization of domestic resources is generally caused by the low level of income, demographic factors and the structure of financial

markets, factors on which it is generally difficult to act on in the short and medium terms (Aryeetey, 2004). It is therefore often assumed that it is unrealistic to expect a significant and sustainable growth of the domestic financial resources mobilization (DRM). Increased mobilization of domestic resources is thus presented as the "last option" to remedy the deficit of resources in Africa. Much of the debates on how to fill the resource gap were focused on the increase of external resources, such as external development assistance (EDA), foreign direct investment (FDI) and debt reduction. This focus however poses a number of problems in the context of Africa, for several reasons. First, if EDA remains a major source of financing growth and development, it will be unstable, and highly dependent on the priorities (often geopolitical or strategic, including for reasons related to international security issues) of partners in development (UNCTAD, 2006a). Second, the FDI, which has brought much of attention recently, is even more debated in Africa than EDA. It is also relatively unstable and tends to be concentrated on extractive industries, with little link with national economies (UNCTAD, 2005). Third, except for South Africa, portfolio investment is insignificant in Africa (ECA, 2006).

According to UNCTAD (2007), a strengthening of domestic resources mobilization ability has many potential benefits for African countries. First, it makes them less dependent on external resources and less vulnerable to external shocks. Then, it will provide a greater margin of action, giving them better control of the development process and in strengthening the capacity of African countries. Finally, the success of the efforts to increase the share of domestic resources depends on the ability of the government to improve the overall domestic economic environment, which can induce significant positive external effects. Finally, these efforts will be also perceived by donors and investors as a positive signal, which could increase the inflows of external resources.

In sub-Saharan Africa, the low level of tax revenues is due in part to factors that make more difficult the collection of taxes. These include the low per capita income, an important agricultural sector; and a broad role of the informal sector in the production, trade and employment, sectors that according to estimates represent 78% of jobs (Xaba et al., 2002). This low level of tax revenues also reflects relative weakness of the government in collecting taxes from certain groups of the society. The tax payers in Africa are generally a small number of individuals and companies, who also are often able to escape paying taxes because of their power and influence on the government. The majority of the population, even if it has little political power or influence, generally has a low ability to pay taxes, especially in the rural areas (Fjeldstad and Rakner, 2003; Fjeldstad, 2006).

Nevertheless, high ratios of tax to GDP do not necessarily mean that a tax system is effective. Through fiscal policy, it is determined what the government provides, how public expenditures are funded and who pays them (Addison et al., 2006). As such, this policy is at the heart of the wider problem of the mobilization and use of resources. Government revenues should be mobilized so that the actors in the private sector are encouraged to work and save. The objectives of an

optimal fiscal system should therefore be the fairness, effectiveness and administrative simplicity (Thirlwall, 2003).

3 Methodology and results

3.1 The model

The model used to identify the main determinants of government revenues in Togo is as follows:

$$RP_t = a_0 + a_1LPIBH_t + a_2VAA_t + a_3VAMIN_t + a_4VAM_t + a_5IP_t + a_6OUV_t + \varepsilon_t \quad (1)$$

RP represents government revenues. LPIBH, VAA, VAMIN, VAM, IP and OUV respectively refer to per capita GDP, agriculture value added, mineral value added, manufacturing value added, political instability and openness.

Indeed, Stotsky and WoldeMariam (1997), for example, showed that the tax potential of a country is determined by a set of structural variables such as the level of development and sectorial origin of income. The more a country is developed; the more is its ability to collect resources. Several explanations can be given to justify this observation. On the aggregate demand side, the rise in the level of development leads to an increase and diversification of demand for public goods that can reduce the resistance of taxpayers to pay taxes. On the supply side, a rise in the level of development certainly increases chances of economic growth. Moreover, administrative capacity, including the capacity of the government to collect taxes would probably improves as the country reaches higher levels of development because of economies of scale in the tax administration and a better economic environment (good infrastructure, better qualification of government employees, higher level of education of the population in general). Structural rate of taxation is also positively influenced by the rate of openness to international trade (Agbeyegbe et al., 2004). Indeed, international trade transactions are more easily taxable than income or domestic consumption. For some countries, the effect of openness on the tax potential is strengthened by a high share of mining and petroleum products in total exports, as this category of exports may give rise to substantial taxes or royalties. The political instability variable is added to the model to take into account the effect of socio-political crisis that took place in Togo from the beginning of 1990s. It is a dummy variable which is equal to 1 for the years of crisis and 0 otherwise. .

Because of data availability, the period covered is from 1982 to 2008. The unit root test has been conducted to determine the order of integration of the different variables of the model. The results obtained with Augmented Dickey - Fuller (ADF) test indicate that at 5% level, all the variables are stationary in their first differences, because the ADF statistics are greater than the critical values (see Table 1).

Since all the variables of the model are stationary in their first differences, the two-step method of Engle and Granger (1987) has been used to conduct the

test of cointegration. This test consists of estimating the long-run relationship (see Table 2) and applying the unit root test on the residues (see Table 3).

Table 1: Results of unit root test

Variables	Level		First differences	
	ADF Statistic	Critical value at 5%	ADF Statistic	Critical value at 5%
RP	1,64	2,99	3,18	2,99
LPIBH	1,93	2,99	3,45	2,99
VAA	0,81	2,99	5,07	2,99
VAMIN	1,82	2,99	3,47	2,99
VAM	2,52	2,99	4,20	2,99
OUV	1,42	2,99	3,21	2,99

Table 2: Results of the estimation of long-run relation

Variables	Coefficients	Statistic of Student in absolute value
LPIBH	13,28 **	2,38
VAA	-0,06	0,77
VAM	0,40 *	2,02
VAMIN	0,42 ***	2,70
OUV	0,10 ***	2,68
IP	- 2,32 **	2,49
Intercept	-139,84 **	2,27

N = 22 ; R² = 0,92 ; R² ajusté = 0,90 ; F* = 40,88 ; DW = 2,24

***, ** and * : signification at 1 ; 5 et 10%

Table 3: Results of unit root test on the residues of long run relation

Variable	ADF Stat.	Critical value at 5%
Residues of the long run relation	3,51	2,99

According to the results indicated in Table 3, the variables of the model are cointegrated because the residues of the long run relation are stationary in level. The error correction model (ECM) that has been estimated is as follows:

$$\Delta RP_t = b_0 + b_1 \Delta LPBH_t + b_2 \Delta VAA_t + b_3 \Delta VAMIN_t + b_4 \Delta VAM_t + b_5 IP_t + b_6 \Delta OUV_t + \gamma RES_{t-1} + \mu_t \quad (2)$$

where RES_{t-1} is residuals' lagged for one period.

3.2 Results

The results obtained after the estimation of Equation 2 are summarized in Table 4 below.

Table 4: Results of the estimation of Equation 2

Variables	Coefficients	Statistics of Student in absolute value
$\Delta LPBH$	14,28 ***	3,62
ΔVAA	0,02	0,27
ΔVAM	0,34 *	1,82
$\Delta VAMIN$	0,35 **	2,63
ΔOUV	0,07 **	2,31
IP	- 0,47	1,19
RES (-1)	-0,97 ***	5,36
Intercept	0,29	0,86
N = 26 ; $R^2 = 0,81$; Adjusted $R^2 = 0,74$; $F^* = 11,09$; DW = 1,91		

***, ** and *: signification at 1; 5 and 10%.

The coefficient of residual' lagged for one period is negative and significant, so the ECM is adapted to analyze the determinants of public revenues in Togo. The statistic of Fischer (F^*) indicates that the model is globally significant. As Durbin-Watson (DW) statistic is closed to 2, there is not errors autocorrelation. According to the adjusted coefficient of determination (adjusted R^2), the explanatory power of the model is 74%. In other words, the model accounts for 74% of the variation of public revenues in Togo. GDP per capita, manufacturing and mining values added, as well as the openness affect positively and significantly public revenues. The effect of political instability is negative, but not significant during the period covered by the data.

These results can be explained by the fact that in Togo, government revenues come essentially from taxes (more than 90% of public revenues). Direct taxes include tax on personal income, corporation, and other direct taxes collected for the exclusive benefit of the budget, as well as direct taxes and related fees collected in whole or in part for the benefit of local communities. Indirect taxes are comprised mainly of value-added taxes (VAT) and other taxes. So a variation

in income per capita, manufacturing and mining values added, and openness significantly affects government revenues. Agriculture being essentially at the subsistence farming level, it is currently difficult to tax it. That is why the effect of agriculture value added is not significant.

4 Conclusion

The mobilization of domestic resources is a major challenge for the development of Togo and its fight against poverty. A more important focus should be placed on internal resources, in particular government revenues because to adequately play its role, the government must have sufficient resources to stimulate growth. A low financial dependence on external resources will enable Togolese government to have a greater margin in the implementation of its development policy goals. The results of our estimates suggest that per capita income, manufacturing and mining value added and trade openness are the main factors that affect positively government revenues in Togo. Agriculture being weakly taxed has not a significant effect on government revenues.

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