

TAX STRUCTURE AND ECONOMIC GROWTH IN CAMEROON

MOUAHA Emérite-Marc, DJAPOU Chimène Diane, CHEMA YANGA Loïc Donald and
TCHIO TCHIEUTSOUAH Raisa

University of Dschang

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ABSTRACT

This paper assess the impact of the tax structure on economic growth and to identify the compulsory levies that best explain Cameroons economic growth, based on data from the DGI, and the National Institute of Statistics. They are explained in time series over the period 2002-2016. With this in mind, we have emphasized the distinction between income taxes and consumption taxes to better understand which taxes positively or negatively affect economic growth. The basic model used is the Cobb-Douglas production function and DOLS and FMOLS are used. The results obtained from the model show that in the long run private investment and public investment are positively related to GDP and its components. On the other hand, in the short term, from the Fully Modified Ordinary Least Squares approach we find that corporate taxes are the most penalizing in terms of growth, followed by personal income taxes and then consumption taxes. Excise Taxes happen to be the ones with less impact. It is therefore up to the State of Cameroon to put in place policies that are budget neutral and growth-friendly, that would modify the sources of financial revenue by reducing income taxes, to the detriment of less distortionary taxes for an optimal tax structure.

Key words: Tax structure, economic growth, Cameroon

1. Introduction

Few subjects give rise to as many discussions, controversies, polemics or reform proposals and raise as much passion and emotion as the tax structure centred on compulsory levies. It has to be said that, both through the levies they impose and the public services and social benefits they finance, they are omnipresent, have a direct influence on the standard of living and living conditions of each and every one of us and constitute a political, economic and social issue of the

highest order. Indeed, the tax structure not only provides the bulk of the financial resources of the state, local authorities and social security administrations, but is also deliberately used to reduce income and wealth inequalities and to influence the behavior of citizens and companies in many areas.

Since 2003 in Cameroon, tax revenues have constituted on average more than 70% of the State's own revenues. In 2016, the Cameroonian tax administration, the Directorate General of Taxes (DGI), mobilised revenue of about CFAF 1,724.6 billion for the treasury, or 60% of the total contribution to the state budget against 56% a year earlier, according to the annual report published in 2016 by this service. The Value Added Tax (VAT) remains the main item of mobilisation with an amount of 557 billion or 34.5% of non-oil tax revenue. This revenue is followed in order of importance by the tax on non-oil companies (21.8%), personal income tax (17.8%) and excise duties (12.3%). As they are not the only source of revenue for the State but also real indicators of financial and budgetary performance, the quality of the DGI's taxes and duties is therefore of primary importance and has a determining influence on the sincerity of the draft finance laws.

At the same time, it should be emphasised that tax revenues are largely used to finance expenditures such as infrastructure, education, health and stable and coherent legal bodies, which increase productivity and promote investment in physical and human capital. Thus, the issue is not so much to reduce the overall tax burden (although this is desirable in some countries) but rather to redefine the tax structure that would minimise the negative impact of taxes on growth while preserving budget revenues. This paper investigates the question of how the tax structure affects economic growth in Cameroon. Our methodology, based on the theoretical results of endogenous growth models, seeks to analyse the optimal structure in a role of mobilising fiscal resources for sustained and inclusive economic growth. A lot of research work has been carried out and published over the last six years in the field of taxation. A number of econometric models have been used to analyse the impact of tax structures on growth, including Mankiw et al (1992), Islam (1995), Caselli et al (1996), Barro (1996) and Wildmalm (2001), most of which used panel models.

2. Literature Review

Economists do not always agree on which tax policy, which organises the tax collection system, may or may not generate economic distortions and harm economic growth and government revenues. Thus, the aim of this literature review is to present the main theoretical and empirical arguments that show the influence of different taxes on economic growth. To do so, we will

briefly review the literature on the empirical link of the impact of tax structures on economic growth.

The relationship between the tax structure and growth has attracted the attention of several economists. Those who think that the tax structure is a tool for economic growth (Romer (1986); Lucas (1988) and Aghion and Howitt (1988); Musgrave (1969)), others who believe that the tax structure alone is not sufficient to ensure growth (Milesi-Feretti and Roubini (1998); Padovano and Galli (2001); Young and Gordon (2004); Ngoc and Arseneau (2012)) and finally in optimal taxation (Rawls (1971), Mirrless (1971), Laffer (1974), Ramsey (1927)).

Furthermore, the purpose of tax structures is to understand the scope of the laws of evolution of the composition of the tax levy and the meaning that draws from it the dynamics of the various taxes and social contributions, according to Gilbert (1979), he qualifies the tax structure as the distribution of all or part of the compulsory levies, according to a determined classification criterion. In other words, tax structures are nothing more than vectors whose evolution in time or space can be observed by breaking them down, tax by tax, or by using synthetic indices (visibility index, apparent concentration, etc.). According to Laffer (1974), the proponent of the "too much tax kills tax" concept, there is an optimal level of taxation for a given economy. Adam Smith and Jean-Baptiste Say in 1803 already stated that "an excessive tax destroys the base on which it is levied". Thus, excessive taxation is costly for the government in terms of growth and tax revenue. For Laffer, tax revenues do not necessarily increase with the tax rate. Indeed, from this optimum, if the government increases tax rates its revenues will decrease because it will reduce the tax base, which would then result from the economic distortions caused by higher taxation.

3. Methodology

The DOLS (Dynamic Ordinary Least Squares) approach was initially proposed for time series by Saikkonen (1991). Kao and Chiang (2000) and Mark and Sul (2003) adapted it to the case of panel data. This technique consists of including leading and lagging values of the first difference of $x_{(i,t)}$, $(\Delta x_{(i,t)})$ in the cointegration relation in order to eliminate the correlation between the explanatory variables $x_{(i,t)}$ and the error term of the long-run relation.

The DOLS estimator is obtained by estimating this equation by OLS, with the infinite sum in practice truncated at a relatively small value of the number of delays/advances. The Fully Modified (FM) method, initially proposed by Phillips and Hansen (1990) and subsequently extended by Phillips (1995), is a semi-parametric procedure for estimating the parameters of a cointegrating relationship which makes it possible to correct for long-term endogeneity bias.

The distribution of estimators obtained by this method is independent of the nuisance parameters present in the OLS distribution. Therefore, the usual test statistics applied to the FM estimators follow standard distributions identical to those used in a stationary universe. The main advantage of this method is its ease of implementation. Fully Modified simply applies OLS to a transformed model. The transformation used is obtained from a convergent estimator of the long-run variance-covariance matrix of the residuals and the innovations of the non-stationary variables. The intuition of the chosen transformation is very simple. The aim is to orthogonalize the residual of the cointegrating relationship with respect to the innovations of the non-stationary variables. Once the system has been rewritten so that the residual of the cointegrating relationship is orthogonal to the innovations of the regressors I (1), OLS can be applied. The distribution of the estimators is in this case independent of the nuisance parameters, centered and symmetric:

$$\ln\text{GDP_real}_t = \beta' x_t + \sum_{\tau=-\infty}^{+\infty} \delta'_{\tau} \Delta x_{t+\tau} + \varepsilon_t$$

3.1 Basic Model Specification

We rely on a two-factor Cobb-Douglas production model to establish the links between the tax structure and economic growth. This model seems to us the most appropriate to take into account the effects of the tax structure in the framework of an extroverted and oil-dependent economy like Cameroon.

Many econometric models have been used to study the impact of tax structures on economic growth, including Mankiw et al, (1992), Islam (1995), Caselli et al, (1996), Barro (1996) and Widmalm (2001). Most of these authors have used panel data models. In this paper we will use a Cobb-Douglas function to establish the links between the tax structure and economic growth. This model seems to us the most appropriate to account for the effects of tax structures in the context of an extroverted and oil-dependent economy:

$$Y = AK^{\alpha}L^{\beta} \quad \alpha, \beta \geq 0 \quad (1)$$

With Y the level of output, A technical progress, K: physical capital, L: labour.

An improvement in productivity can be the result of a real policy of tax structures (STF) and a reorganization of these structures based on a shift of the tax burden from income tax to consumption tax, which would make the tax system more efficient and favorable to economic

growth (Vartia, 2008; Johansson, 2011). In Cameroon, this reorganization involves better management of state revenues (RTE) and transfers of part of these revenues to businesses (TRE).

We therefore assume that: $A = STF + RTE$, with $STF = IRPP + IS + VAT$ or

$A = IRPP + IS + VAT + ED + RTE$. With IRPP: personal income tax; IS: corporate income tax; VAT: value added tax; ED: excise duty. We can therefore write equation (1) in the following form:

Using a mathematical transformation, we can write this multiplicative model in linear form by introducing the logarithm:

$$Y = (IRPP + IS + VAT + ED + RTE)K^{\alpha}L^{\beta} \quad (2)$$

With K: gross fixed capital formation (GFCF) and L: working population.

From relation (3), we propose the following empirical linear model:

$$\begin{aligned} \ln(GDP - real)_t &= \alpha_0 + \alpha_1 \ln(excise\ duties)_t + \alpha_2 \ln(GFCF)_t \\ &+ \alpha_3 \ln(IRPP)_t \\ &+ \alpha_4 \ln(IS)_t \\ &+ \alpha_5 \ln(Inv - priv)_t + \alpha_6 \ln(Inv - pub)_t + \alpha_7 \ln(Pop - act)_t \\ &+ \alpha_8 \ln(Rec - tot)_t + \alpha_9 \ln(VAT)_t \\ &+ \varepsilon_t \end{aligned} \quad (3)$$

Where α_0 is the constant, α_1, α_9 the parameters to be estimated, ε_t the error term.

3.2 Data And Descriptive statistics

The sample includes data from Cameroon over the period 2002-2016 based on data availability. The list of description of the variables used is presented in table1.

Table 1: Description of variables

Descriptions	Source
Presents the annual evolution of Cameroon's gross domestic product	NSI
They refer to taxes levied on the net income and capital gains of individuals.	DGT
Are taxes on the income of <u>companies</u> .	DGT
Includes all taxes levied on production, extraction and sale,	DGT
Indicates the share of a country's output that is levied by the government in the form of taxes.	DGT DGT
The investment of the various resident economic agents in fixed capital	NSI
Represents the amount of labour supplied in an economy	NSI

Note: Directorate General of Taxes (DGT), National Statistics Institute (NSI)

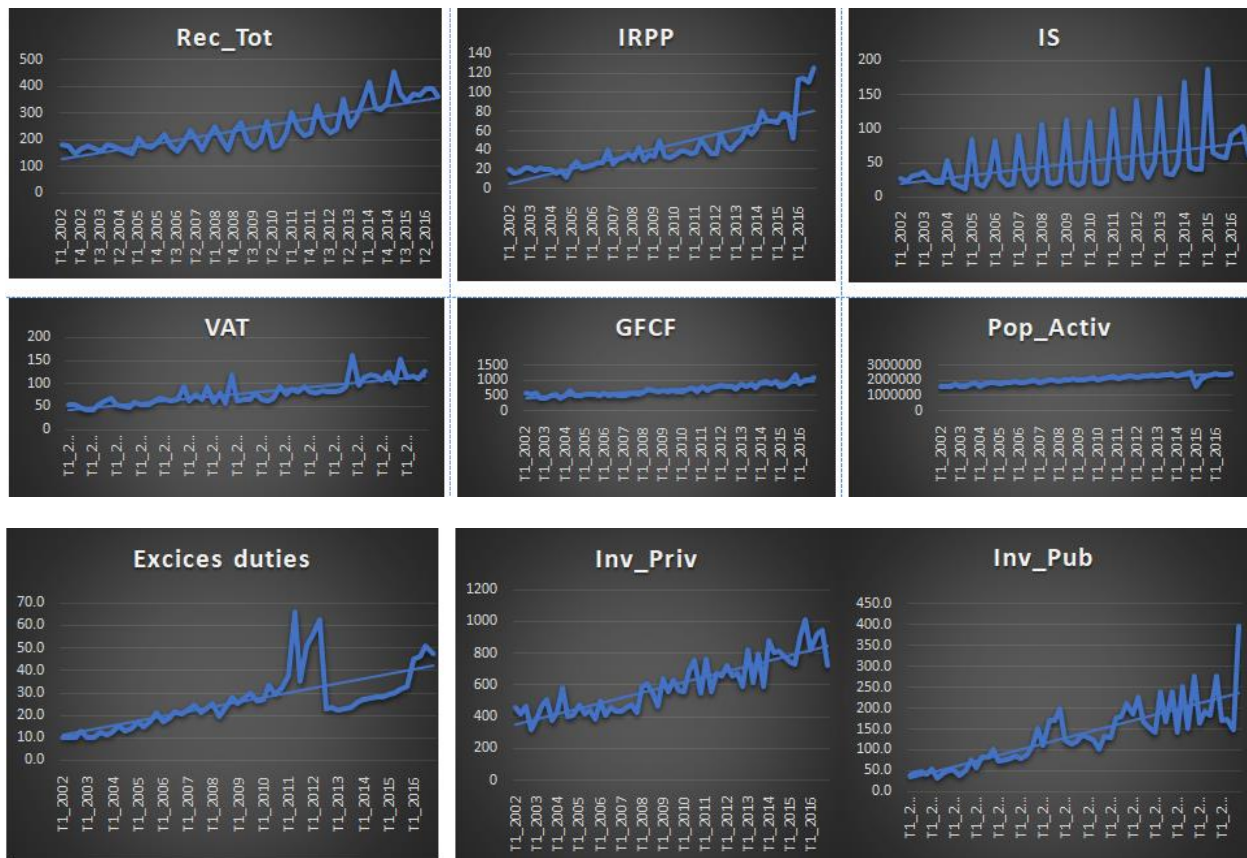
Source: authors

Table 2: Descriptive Statics

Variables	Nbr obs	Mean	Std-dev	Minimum	Maximum	Signe
Rec-tot	60	243,0172	80,66646	147,1	455,3	+
IRPP	60	43,61222	26,0218	11,7	125,8667	-
IS	60	50,30667	41,8783	11,3	186,8	-
VAT	60	80,30222	26,58778	42,5	161	-
GFCF	60	682,8349	182,2113	411,6379	1173,586	+
Pop-activ	60	2041701	252608,6	1590908	2509739	-
Inv-priv	60	599,9743	169,0059	321,6682	1012,91	+
Inv-pub	60	133,0573	72,3564	32,93634	395,1829	+
Excise duties	60	26,54056	12,88918	10,2	66,2	+

Source: authors

The table shows the average levels of estimated tax revenues from 2002 to 2016. The average level over the period is 43.61% according to the compulsory levies. The variability of corporate income tax is significant at the level of income tax 41.87%.



The graphs above show the evolution of the yield of taxes. Over the period 2002 Q1-2016-Q4, the yield of the various taxes evolves globally according to an increasing trend, except for corporate taxes.

On the other hand, the fluctuations of the tax yield around the trend seem to be regular and periodic, especially for corporate taxes: the first quarter shows the highest values each year, and the others generally the lowest.

Unit root tests are used to detect the presence of unit roots in a series. In this work, we chose the Augmented Dickey and Fuller (ADF) test. The results of the tests are presented in the table below.

Table 3: ADF stationarity tests

Variables	Statistiques (ADF)	P-value	Décision
LnExcise duties	-10,41677	0,0000	I(1)
LnGFCF	-8,015233	0,0000	I(0)
LnIRPP	-12,06410	0,0001	I(1)
LnIS	-27,58680	0,0000	I(1)
LnINV PRIV	-11,06532	0,0000	I(1)
LnINV PUB	-8,616954	0,0000	I(1)
LnGDP	-11,74459	0,0000	I(1)
Lnpop_activ	-9,392924	0,0002	I(1)
LnRec_tot	-17,09741	0,0000	I(1)
LnVAT	-28,65992	0,0000	I(1)

The results obtained indicate that all the variables of the study are stationary in first difference, except GFCF in relation to GDP which is stationary at level. The significance level is 1%.

Cointegration tests: Several tests (Engle-Granger test, Johansen test, etc.) are used to determine whether or not there is cointegration between the variables. In this study, we retain the Johansen test and the maximum eigenvalue test which indicate the amount of cointegration relationship. The results of these tests are summarized in the tables below.

Table 4: Results of the cointegration test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.
None *	0.821208	274.1190	239.2354	0.0005
At most 1	0.579244	174.2703	197.3709	0.3790
At most 2	0.442759	124.0595	159.5297	0.7693
At most 3	0.330569	90.14350	125.6154	0.8641

At most 4	0.280565	66.86656	95.75366	0.8178
At most 5	0.277999	47.76777	69.81889	0.7311
At most 6	0.192289	28.87550	47.85613	0.7742
At most 7	0.149331	16.48956	29.79707	0.6774
At most 8	0.114698	7.109064	15.49471	0.5650
At most 9	0.000743	0.043098	3.841466	0.8355
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: authors

Table 5: Results of the maximum eigenvalue test				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.
None *	0.821208	99.84874	64.50472	0.0000
At most 1	0.579244	50.21078	58.43354	0.2549
At most 2	0.442759	33.91597	52.36261	0.8467
At most 3	0.330569	23.27694	46.23142	0.9877
At most 4	0.280565	19.09879	40.07757	0.9828
At most 5	0.277999	18.89226	33.87687	0.8285
At most 6	0.192289	12.38594	27.58434	0.9161
At most 7	0.149331	9.380497	21.13162	0.8006
At most 8	0.114698	7.065966	14.26460	0.4814

At most 9	0.000743	0.043098	3.841466	0.8355
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Autor

The results of the Johansen test and the maximum eigenvalue test show that the selected variables are cointegrated at the 5% threshold. The null hypothesis of no cointegration is rejected because the trace test and the Max-Eigen value test each indicate a cointegrating equation. It is therefore possible to identify $(9-1) = 8$ persistent impulses and the others are a source of randomness that exert only a transitory effect. These results suggest the existence of at most one long-run relationship between the variables.

5. Result of the basic model

The results of the estimation of the long-term and short-term models obtained from the econometric model are presented in Tables 6 and 7.

Table 6: Results of the estimation of the short-term model

Variable dependante : LNGDP_REAL				
Variables	Coefficient	Std. Error	t-Statistic	Prob.
LNExcise duties	0.040007	0.036236	1.104081	0.2750
LNGFCF	-0.352011**	0.174092	-2.021977	0.0487
LNIRPP	-0.281343	0.208317	-1.350549	0.1830
LNIS	-0.431893**	0.191060	-2.260507	0.0283
LNINV_PRIV	0.382617**	0.168623	2.269066	0.0277
LNINV_PUB	0.103926**	0.040747	2.550525	0.0139
LNPOP_ACTIV	-0.273634	0.219515	-1.246537	0.2185

LNREC_TOT	-0.100809	0.211005	-0.477756	0.6349
LNVAT	-0.354792*	0.180839	-1.961920	0.0555
C	13.54224***	0.853326	15.86996	0.0000
R-squared	0.915906	Mean dependent var	7.929821	
Adjusted R-squared	0.900460	S.D. dependent var	0.176628	
S.E. of regression	0.055726	Sum squared resid	0.152165	
Durbin-Watson stat	1.506962	Long-run variance	0.004503	

Notes: ***, ** and *represent 1%, 5% et 10% of level of significant respectively.

Source: Autor

The results on the impact of direct taxes (IS and IRPP) on growth in Cameroon in the short-term show that the cointegration and maximum eigenvalue tests show that the selected variables are cointegrated at the 5% threshold.

The short-term model is estimated at 91%, and therefore the explanatory variables contribute to the explanation of the total variability of the model. Indeed, the analysis of the results indicates that in Cameroon the direct tax variables affect economic growth negatively. Furthermore, the empirical evidence from our study shows that when personal income taxes increase by 1%, this translates into a decrease in economic growth of about 0.28%. For corporate taxes, a 1% increase will lead to a decrease in economic growth of 0.43%.

The negative effect of corporate taxes on growth has already been highlighted by several studies, including Romer (2010) and Gemmel et al, IMF (2010), Johansson et al, (2011), Levine and Renelt (1992), Felix (2006), Bloom et al, (2007). In the short run, this study indicates that corporate taxes have a negative impact on growth. According to their analysis, they argue that an increase in corporate tax levels worsens productivity, by discouraging investment in higher taxed and higher productivity sectors in favour of lower taxed and lower productivity sectors. An increase in the tax burden could thus lead to a flourishing of the underground economy and the multiple detours taken to avoid taxes (tax evasion) Engen and Skinner (1996), Mendoza et al. (1997).

Over the period studied, from 2002 to 2016, our study shows that the revenue of the Cameroonian state, although it has increased considerably, has a negative influence on Cameroonian economic growth. This result was highlighted by Judd, (1985); Chamley, (1986) budgetary variables such as taxes and fiscal revenues which have as a counterpart public expenditure can affect the level of long-term GDP but not the long-term growth rate. Fiscal policy can therefore have both negative and positive effects. In Cameroon, this analysis suggests that an increase in government revenue is greater than the distortions generated by the levies on economic agents. In other words, state revenues are strongly linked to oil resources.

The impact of indirect taxes (DA and VAT) on growth in Cameroon has a mixed effect. Indeed, the analysis of the results indicates that in Cameroon the indirect tax variables, namely excise duties, do not promote economic growth. On the other hand, the value added tax promotes economic growth. The empirical results of our study show that when excise duties increase by 1%, this translates into an increase in economic growth of 0.04%. For value added tax, a 1% increase will lead to a decrease in economic growth of 0.35%.

Table 7: Results of the estimation of the long-term model

Variable dépendante : LNGDP_REAL				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
D(LNExcise duties)	-0.200349	0.527967	-0.379471	0.7085
D(LNGFCF)	-2.730473	2.769793	-0.985804	0.3366
D(LNIRPP)	-1.386365	3.308147	-0.419076	0.6799
D(LN IS)	-3.197535	3.776294	-0.846739	0.4077
D(LNINV_PRIV)	-9.293765**	4.085192	-2.274988	0.0347
D(LNINV_PUB)	-2.177232**	0.881067	-2.471130	0.0231
D(LNPOP_ACTIV)	-13.04575**	4.821806	-2.705574	0.0140
D(LNREC_TOT)	-1.260663	3.499976	-0.360192	0.7227
D(LNVAT)	-3.385684	3.198689	-1.058460	0.3031

C	7.931237***	0.045759	173.3268	0.0000
R-squared	0.680138	Mean dependent var	7.933793	
Adjusted R-squared	0.074084	S.D. dependent var	0.168149	
S.E. of regression	0.161801	Sum squared resid	0.497410	
Durbin-Watson stat	0.911957	Long-run variance	0.062700	

Notes: ***, ** and *represent 1%, 5% et 10% of level of significant respectively.

Source: authors

The analysis of the direct tax variables shows that they are not significant at the 5% threshold on economic growth. A 1% increase in personal income tax leads to a 1.3% decrease in growth. Corporate taxes have a negative impact on growth. A 1% increase in corporate income tax leads to a 3.1% decline in growth.

The negative effect of corporate taxes on growth has already been highlighted by several studies, including Romer (2010) and Gemmel et al, IMF (2010), Johansson et al, (2011), Levine and Renelt (1992), Felix (2006), Bloom et al, (2007).

According to their analysis, they argue that an increase in corporate tax levels worsens productivity, by discouraging investment in the most taxed and productive sectors in favour of the least taxed and least productive sectors. An increase in the tax burden could thus lead to a flourishing underground economy and multiple detours to avoid taxes (tax evasion) Engen and Skinner (1996), Mendoza et al. (1997). In the case of Cameroon, this result suggests that corporate taxes do not contribute to the development of the country at the level of the DGI: it follows from these estimates that in the long run, corporate taxes have a negative influence on economic growth in Cameroon because 80% of the industrial fabric is made up of SMEs.

In the long term, the analysis of indirect taxes shows that they are not significant at the 5% threshold on economic growth. A 1% increase in excise duties leads to a 0.2% decrease in growth. VAT has a negative impact on growth. A 1% increase in VAT leads to a 3.1% decrease in growth.

As Lee and Gordon (2005) point out, a higher rate of value added tax (VAT) can discourage risk-taking, and thus entrepreneurship: although in theory VAT is considered a neutral tax in its application, in practice the lack of compensation by VAT when a company fails to sell its

products means that it cannot pay less tax when it makes a loss. On the other hand, when it makes a profit, it has to pay taxes on its output.

This study also shows that higher tax rates on goods and services discourage productivity in Cameroon or at least do not contribute to economic growth, as argued by Keller (2004), Griffith et al. (2004), Criscuolo (2006), Felix (2006), Hasset and Mathur (2006) and Bloom and al.

Consumption taxes have less adverse effects on growth than most other forms of taxes. To the extent that income taxes affect the after-tax rate of return and taxes on current or future consumption do not affect the rate of return on savings and saving choices, since higher rates increase the incentive to save while decreasing the rate of saving needed to reach a given level of assets. Some empirical studies find significant effects of interest rates on savings, while others conclude that there are no effects at all. Indeed, a change in consumption taxes increases private savings and future net national income can be expected to increase.

Our estimates also highlight the significant effect of public investment on economic growth; validating the empirical results of Helmes (1985) taxation can lead to economic growth when it is used to finance productive public expenditure, i.e. expenditure that has positive effects on investment and the productivity of private capital. These are generally economic infrastructure (roads, bridges, airports, railways, telecommunications, etc.) and social infrastructure (health, education, drinking water supply, electricity, etc.). In Barro's (1990) model, the positive effects generated by public spending on the level of activity can offset the negative effects generated by tax levies. Moreover, taxes on the consumption of goods and services, which are not very distorting, unlike income taxes, are likely to have a positive effect on growth if the state is sufficiently productive.

Finally, investment in infrastructure, education and health is an indispensable factor for growth. . N'Garesseum (2004) and Keho (2005) propose an interpretation of these results. For them, in the long run, public investment has a positive effect on private investment and economic growth. Indeed, we can affirm that the positive effect of taxes on growth can be explained by the relative importance of the beneficial effects of public investments compared to the negative effects corresponding to tax levies. According to Oussou (1994), these beneficial effects in terms of protection of productive activities, concomitant reduction of pressures on domestic credit. In addition, the demand effects generated by the increase in public revenue could also produce such effects.

Furthermore, Veganzonès (2001) on a panel of 87 countries, including 25 sub-Saharan African countries, shows that investment has a largely significant and positive effect on economic

growth. This confirms the position of private investment as a primary factor of sustained economic growth, through job creation, income growth and thus the mobilization of revenue essential to public administration for the implementation of public health policies, education and infrastructure, which contribute to improving productivity. In view of the above, there is a complementary link between public and private investment.

6. Conclusion

The main objective of this paper was to determine the tax mix, which leads to an optimal tax structure in the period 2000-2016. Our estimates first highlight the significant role played by taxation on growth. The main results are as follows

First, the fiscal variables of income tax have a negative influence on economic growth in Cameroon. Income tax is understood here as the tax base. This result is consistent with those obtained by the IMF (2010), Johansson et al, (2011), Levine and Renelt (1992). In the short run, this study indicates that corporate taxes have a negative impact on economic growth. According to their analysis, they argue that higher levels of corporate taxes worsen productivity, discouraging investment in higher taxed, high productivity sectors in favour of lower taxed, lower productivity sectors. Subsequently, Engen and Skinner (1996) and Mendoza et al. (1997) show that an increase in the tax burden could thus lead to a flourishing of the underground economy and the multiple detours taken to avoid taxes (tax evasion).

Secondly, the consumption tax variables (value added tax and excise duties) give us both a positive and negative picture. Excise duties have a positive and significant impact on Cameroonian economic growth. In contrast, VAT has a negative impact on economic growth. As Lee and Gordon (2005) point out, a higher rate of value added tax (VAT) can discourage risk-taking, and therefore entrepreneurship.

Finally, other macroeconomic determinants, such as private and public investment, are also crucial for economic growth. Veganzonès (2001) on a panel of 87 countries, including 25 sub-Saharan African countries, shows that investment has a largely significant and positive effect on economic growth. This confirms the position of private investment as a primary factor of economic growth, through job creation, income growth and also the mobilization of revenues that are essential for public administration to implement public health policies, education and infrastructure, which contribute to improving productivity. Furthermore, N'Garesseum (2004) and Kebo (2005) offer an interpretation of these results. For them, in the long run, public investment has a positive effect on private investment and economic growth. Indeed, we can affirm that the positive effect of taxes on growth in Cameroon can be explained by the relative

importance of the beneficial effects of public investments compared to the negative effects corresponding to tax levies.

In view of the above, we have come up with some economic policy recommendations for an optimal tax structure in Cameroon where the participation of the tax mix is not neutral for its development.

At the level of consumption levies.

The first concerns the negative impact of taxes on goods and services on growth. They need to be continually reformed to reduce their distortionary nature, and whatever the profitability of indirect taxes, strengthening domestic resource mobilization is not only about increasing revenues: it is also about fostering cohesion and good governance, improving government accountability.

At the level of income taxes.

The second concerns the effects of personal and corporate taxes on economic growth. A priori an increase in these variables has a negative effect. Therefore, they seem to be avoided. However, they have an important role in the distribution of wealth and should not be totally ignored. Concern for equity and also poverty must always be present, especially as taxation may lead to net losses in production and social utility. The design and operation of the tax system, and in particular the dimensions of transparency, anti-corruption and equity, are also determining factors for public decisions, insofar as they constitute parameters for improving the tax structure.

Diversify the Cameroonian economy.

This recommendation stems from the fact that the Cameroonian economy is dependent on its natural resources. On the one hand, the abundance of natural resources on the territory attracts more companies from the extractive sector, which do not create real added value and therefore their effects on growth. On the other hand, in the event of a commodity market shock, as has been the case in recent years with oil, countries that derive most of their revenue from oil rents find themselves affected and can therefore no longer finance their extensive development program, or in the worst case, they may even fall into recession. Diversification of the economy will enable the Cameroonian state to better resist external shocks. It also requires the development of other production sectors, such as manufacturing and second-generation agriculture.

References

- A. Symphorien Ndzana Biloa « *La fiscalité, levier pour l'émergence des pays africains de la zone franc : le cas du Cameroun* », France l'Harmattan, 2015 page 03.
- A. Symphorien Ndzana Biloa « *La fiscalité, levier pour l'émergence des pays africains de la zone franc : le cas du Cameroun* », France l'Harmattan, 2015 page 33.
- A. Symphorien Ndzana Biloa « *La fiscalité, levier pour l'émergence des pays africains de la zone franc : le cas du Cameroun* », France l'Harmattan, 2015 page 87.
- Arnold, Jens Matthias, Bert Brys, Christopher Heady, Asa Johansson, Cyrille Schwellnus et Laura Vartia (2011), "Tax Policy for Economic Recovery and Growth", *The Economic Journal*, page121.
- Arnold, Jens Matthias, Bert Brys, Christopher Heady, Asa Johansson, Cyrille Schwellnus et Laura Vartia (2011), "Tax Policy for Economic Recovery and Growth", *The Economic Journal*, page,121.
- Arseneau, Mathieu, Ngoc Ha Dao et Luc Godbout (2011), "Impact of Tax Mix on Economic Growth : New Evidence From OECD Panel Data", en voie de publication
- Arulampalam W., Devereux M., Maffini G. (2009) "The direct incidence of corporate income tax on wages", Oxford university centre for business taxation.
- Barro R, (1990) "*Gouvernement Spending in a simple model of endogenous growth*, journal of politic economy", vol 98, n°5, S103-S125.
- Bloom N., Sadun R., Reenen J. V. (2007) "Americans do I.T. better: *US multinationals and the productivity miracle*", NBER Working Papers, no 13085, National bureau of economic research, Cambridge MA.
- Criscuolo C. (2006) « *Les filiales de sociétés étrangères dans les économies de l'OCDE :leur poids, leurs performances et leur contribution à la croissance du pays d'accueil* », Revue économique de l'OCDE, n° 41.
- E. Disle et J. Saraf, « *Le petit fiscal* », Paris, Dunod, 2018 pages 9.
- F. Padovano, et E. Galli (2001) "Tax Rates and Economic Growth in the OECD Countries (1950-1990), *Economic Inquiry*", Vol. 39 No. 1, page. 44-57.

- F. Widmalm, (2001) "Tax Structure and Growth: Are Some Taxes Better Than Others? *Public Choice*", Vol. 107, No. 3/4, page. 199-219.
- Felix R.A. (2006) "*Passing the burden: Corporate tax incidence in open economics*", University of Michigan.
- Harberger, A. C. (1964). "*Taxation, resource allocation and welfare, in NBER' and the Brookings Institution*", The Role of Direct and Indirect Taxes in the Federal Reserve System. Princeton: Princeton University Press 25 – 75.
- Hasset K.A., Mathur A. (2006) "*Taxes and wages, American Enterprise Institute*", Working Paper, 28.
- Helms, L, J, (1985) "*The Effects of State and Local Taxes on Economic Growth: A Time Series Cross-Section Approach*", Review of Economics and Statistics, n°67, 574-582.
- Keho Y. (2004), "*Impact de l'investissement public sur la croissance en Côte d'Ivoire*", Politique Economique et Développement (PED), N° 103, Octobre 2004, CAPEC-CIRES, Abidjan, Côte d'Ivoire.
- Keho, Y. (2005), "*Relation entre investissement public et investissement privé en Côte d'Ivoire: Contribution à l'analyse empirique d'un lien ambigu*", Politique Economique et Développement (PED), CAPEC-CIRES, Abidjan, Côte d'Ivoire.
- Keho, Y. (2009), "*Budget Balance through Revenue or Spending Adjustments? An Econometric Analysis of the Ivorian Budgetary Process, 1960-2005*", Journal of Economics and International Finance, 2(1), 1-11.
- King, R.G., & Sergio, R. (1990). "*Public policy and economic growth: Developing neo-classical implications*". Journal of Political Economy, 98 (5), page 126-150.
- Kneller R., Bleaney M.F., Gemmell N. (1999) "*Fiscal policy and growth: evidence from OECD countries*", Journal of public economics, No74, page 171-190.
- Lee, Young et Roger H. Gordon (2004) "Tax Structure and Economic Growth, Journal of Public Economics", 89, page. 1027-1043.
- Milesi-Ferretti, Gian Maria et Nouriel Roubini (1998), "Growth Effects of Income and consumption Taxes, *journal of money, Credit and Banking*", vol.30, No.4, page 721-744

Moustapha Hamzoui et Nezha Bousselhani, (2017), « *impact de la fiscalité sur la croissance économique du Maroc* », european scientific journal, vol13, n°4 page 104-126.

N'Garesseum, D. K. T. (2004), "*Impact de l'Investissement Public sur la Croissance en Côte d'Ivoire*", Politique Economique et Développement (PED), N° 104, Octobre 2004, CAPEC-CIRES, Abidjan, Côte d'Ivoire.

Oussou, K. (1994), "*Rétrospective Budgétaire et Evolution des Finances Publiques en Côte d'Ivoire : 1960-1982*", Document de Travail No, 6, Novembre 1994, CAPEC, Abidjan, Côte d'Ivoire.

Oussou, K. (1994b), "*Politique Budgétaire et Croissance en Côte d'Ivoire*", Document de Travail No, 9, Décembre 1994, CAPEC, Abidjan, Côte d'Ivoire.

Solow, Robert M. (1956), "A Contribution to the Theory of Economic Growth", *Quarterly Journal of Economics*, Vol.70, No. 1, page 65-94.

Véganzonès, M. A. (2001), "*Infrastructures, investissement et croissance : un bilan de dix années de recherches*", *Revue d'Economie du Développement*, n°4, 31-46.