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Fiscal policy and economic growth in the West African Economic Monetary Union Countries

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Abstract

Since the early 1990s, the West African Economic Monetary Union (WAEMU) countries have introduced tax reforms to reduce distortions in the common market and therefore to be strengthening revenue mobilization to support growth. The purpose of this article is to show that such a tax policy, designed as the use made of tax for economic or social purposes, promotes economic growth in the area. I establish this by building on the econometrics of panel data, including the period from 1980 to 2014.

Keywords: Economic growth, Fiscal policy, Panel data, WAEMU

J.E.L. Classification: O470 – E620 – C230 – O55

1. Introduction

Many developing countries, mainly the African countries are today faced with public expenditure funding issue essential to meeting the growing needs of their populations. Their difficulties are further compounded by the sluggish international economic environment, which increases their vulnerability to the official development assistance (ODA) and foreign debt which they are essentially dependent. Given the volatility of external financing and the urgency to reduce external dependence, it is essential for these countries to change development funding strategy, mobilizing domestic resources, which appear to consider the best way to finance public spending. It is in this context it is appropriate to place the internal tax resources, whose mobilization for development purposes can be performed without causing a debt process, allowing to prioritize the use of such resources to preserve the sustainability of public finances.

The mobilization of tax revenue cannot be done effectively if it comes from a well-developed tax policy, which means not as all the choices that contribute to establish the characteristics of a tax system (level of pressure tax, allocation of the levy, tax technical, decisions on the plate or the tariff for various taxes, etc.), but the use made of tax for economic or social purposes[2]. From this point of view, fiscal policy appears as a lever whose national governments have, especially in a community space and a market economy, to establish their ability to guide the economic and social future of their populations. Such an orientation is the basis of the definition of the convergence criteria, where it is recommended to pursue the goal of achieving a minimum tax ratio of 17% in the different economies of the West African Economic Monetary Union (WAEMU), since we observed that low levels of tax recovery in these economies considerably limited government spending, forcing them to borrow or depend on aid flows to finance their basic needs development. In other words, this is by increasing tax revenue and WAEMU countries must be able to support domestic investment. Since 1996, the WAEMU fiscal policy is based on two pillars: domestic taxation and taxation door. The latter mainly refers to the process of liberalization of intra and extra-trade liberalization, developing mechanisms for increased trade between the member countries of the Union, which implies a total abolition of customs barriers between Member States (Cadot and *al.,* 2013).

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[2] The tax is envisaged this perspective as an instrument of economic policy and tax policy takes its place in the public debate.

Internal taxation in turn is based on indirect taxation and direct taxation, and member countries of the Union are obliged to pursue an objective and harmonized policy[3], avoiding not distort competition between them, since there disparities in tax rates and regimes, as is observed especially in indirect taxes. In terms of results, the degree of harmonization achieved in WAEMU is currently among the most satisfying, if a comparison is made with that of regional integration areas both developed countries and developing countries (Mansour and Rota Graziosi, 2012).

Besides these aspects, there is the importance of mobilizing domestic resources to give more relevance to fiscal policy. Obviously, this mobilization through development of the private sector in the countries of the WAEMU zone is characterized by an insufficient number of companies able to sustainably contribute to the creation of wealth. Moreover, the existence of a limited number of companies has the effect of making them bear a heavy tax to negative performance and unsustainable in the long term, due to an unfavorable economic environment.Reforms since 1990 have targeted a reduction of the weight of tax structures which burdened economic growth. From this point of view, they have generally sought to create a tax environment that encourages savings, investment, entrepreneurship and work. This is even more likely that the tax affects: i) individual decisions concerning savings, work and improving the level of education; ii) business decisions on production, job creation, investment and innovation (Bénassy-Quéré et *al, 2009)*. iii) the choice of savings instruments and assets by investors. All these decisions are affected not only by the level of taxes but also by the way tax instruments are designed and combined to generate public revenues (OECD, 2009).

Identified decisions are somewhat dependent on the tax environment, and they are essentially support on factors that latitude to fuel the growth process. Therefore, these factors are a set of which may be borrowed to boost growth channels, which supports the idea that fiscal policy influences especially the growth or development in general (Musgrave 1987; Tanzi, 1991; Stiglitz, 2003; McGee, 2004; Perotti, 2005; de Castro and Hernández de Cos, 2006).If it is established that fiscal policy appears to be an essential instrument of economic development, can we assume that such an assertion is verified by WAEMU zone? In other words, is it possible to mobilize fiscal resources that allow States to meet their commitments to finance public investment, guarantee a virtuous growth based on improved social welfare? This is the question that this article attempts to provide answers, i.e. by showing that fiscal policy in the WAEMU zone helps foster economic growth.The remainder of this paper is structured around the following points Section two presents a summary of the literature that puts into perspective the role of fiscal policy on economic growth while Section three is devoted to the presentation of the methodology. The estimation results are analyzed in Section four, and conclusions drawn from the analysis are presented in Section five.

2. Taxation and Economic Growth: A review of the literature

Economists have long questioned the effects of taxes on economic development and in general, the empirical literature that seeks to establish the influence of fiscal policy on growth does not seem to be real consensus (Myles; 2000; Perotti, 2002; de Castro and Hernández de Cos, 2006; Giordano et *al, 2007)*.. Some of them argued that fiscal variables exerted a very limited influence on growth due to the expectations of economic agents (Baxa 2010). The liberal model is as the analytical framework for such a scheme, where it is recommended a minimal state, public expenditure and the lowest possible levies. The tax is essentially performs the function of financing public goods and services that cannot be produced by the market. Its use for cyclical or structural policy is considered harmful, and the correction of market failures, like externalities, is the only reason that can justify a fiscal intervention.Other economists have focused on an interventionist policy based on the use of taxes for incitement. The idea in the background here is that any decline in tax rates is seen as a way to boost economic activity, since such a drop influence economic decisions on investment, savings, labor supply and job (Guillou, 2014). For Keynesian, fiscal policy is one of the fiscal variables that allow the State to handle for stabilization purposes. The existence of underemployment equilibrium requires, in this perspective, the State's intervention that, by increasing the level of effective demand, enables the economy to converge to full-employment equilibrium. A government can use fiscal and budgetary policy to stabilize the economy and reduce the rise in unemployment.

[3] A policy of harmonization of internal taxation was conducted in the early 2000s with the aim of strengthening revenue mobilization and to reduce distortions in the common market.

However, this analysis is not always borne out by reality, particularly in developing countries (Tanzi, 1991), and the role of fiscal policy, like other policies, depends on the socio-economic and institutional situation of each country (Chang, 2003). More recent research has shown that high tax rates hinder economic growth, and there seems to be a consensus on the macroeconomic effects of taxation, in the sense that the latter is not economically neutral. These arguments on the recognition of the non-neutrality of fiscal policy are known as the famous Laffer curve *"too much tax kills tax"*[4].

This theoretical opposition is based on several empirical studies have produced mixed results on the effect of fiscal policy on economic growth. To understand the main channels through which fiscal variables affect the rate of economic growth, the neoclassical model of Solow (1956), which allows to identify five channels can be considered: 1) high taxes may discourage investment by decreasing net capital[5]; 2) taxation can weaken labor supply, by distorting the choice between work and leisure, between training and the low-skilled; 3) taxation can slow production growth by discouraging investment in research and development, or in high technology; 4) taxation can have an impact on the marginal productivity of capital, especially if it promotes a shift in investment towards sectors where taxes are lowest and where productivity is lower (Skinner, 1987); 5) high taxes on labor can disguise the efficient use of human capital, so as to discourage work in high productivity and high tax areas.Economists of supply conclude from their analysis that reducing the tax burden should lead initially accelerating economic growth and secondly to enable the State to increase the amount of revenue. The pioneering work on endogenous growth (Romer, 1986; Lucas, 1988) helped to capture the effects of taxation on growth. The work allows verifying that when taxes are used to finance public investment in infrastructure, education and health, they may be favorable to growth (Lucas, 1988; Barro, 1990). Considering a growth model with productive public spending, Barro (1990) emphasizes the existence of a Laffer curve between tax rates and economic growth rates. This curve shows that up to a certain tax threshold, tax policy encourages growth, but beyond that threshold, it generates negative externalities that retard growth. Kocherlakota and Yi (1997) find that the effects of taxes on economic growth are permanent as provided by the endogenous growth model. However when taxes exceed a certain level, they generate negative externalities on the economy. From a general equilibrium model calibrated on the multiregional WAEMU countries, Cadot et *al.* (2013) show that following the enlargement of the tax base of value added tax (VAT) associated with a significant decrease in rates for the same level of VAT revenue, GDP increases by 1 to 2 percent according the country. Easterly and Rebelo (1993), in a study to show the relationship between the various fiscal policy measures, the level of development and the rate of economic growth, among others conclude that the impact of taxes on growth depends on its structure, and only the marginal tax rate on income significantly explains the growing disparities.

Eaton (1981) showed that taxes may reduce growth in the endogenous growth model. Work by Chambas (1994) concluded the adverse effects of tax rates on productive activity in African countries. For him, the tax rate generally applied in Africa is the source of incentives to reduce consumption. Lee and Gordon (2005) and Martinez-Lopez (2005), using the endogenous growth model, lead to the conclusion that the increase in the tax rate on income leads to lower growth rates. Milesi-Ferretti and Roubini (1995) also showed that direct taxes have a negative impact on growth. Using the framework of the neoclassical growth model, Milesi-Ferretti and Roubini (1998) show that changes in tax rates can not affect the long-term growth rate.Some authors believe that the impact of fiscal policy on growth is negligible (Harberger, 1964 Mendoza, Milesi-Ferretti and Asea, 1995), and conclude that growth requires substantial changes in the tax system (Mendoza, Milesi- Ferretti and Asea, 1995). Rivas (2003) shows that if the government uses taxes to finance certain public services such as infrastructure, education, health, legal system, respect for property rights, the relationship between taxation and growth becomes ambiguous. By using the endogenous growth model, Tomljanovich (2004) showed that the relationship between fiscal policy and growth becomes more uncertain.

Finally, several studies (Engen and Skinner, 1996; De Castro and Hernández de Cos, 2006) conclude that fiscal policy has a modest impact on economic growth. According to them, the tax structure is also important for economic growth. Thus, countries who manage to collect taxes by a broad base tax and an efficient organization probably realize faster growth than countries with limited tax base and inefficient tax organization.

[4]Laffer illustrates this idea with a U-shaped curve inverted, indicating that there is an optimal level of taxation for a given economy. Therefore, policy makers and economists have warned that excessive taxation is costly for the government in terms of growth and tax revenues.

[5] This is what is observed in the case of high statutory tax rates on income and profit, and in the case of high taxation of capital income.

Beyond this literature review, it is my duty to present the model to be mobilized to show how fiscal policy influences economic growth in the WAEMU zone.

3. Methodology

As part of my work, my methodological approach is inspired by the work of Reed (2008). I rely on an endogenous growth model developed by Mankiw et *al* (1992) and based on homogeneous and linear production function following: $Y_{it} = A_i K_{pr_{it}}^{\alpha} K_{pu_{it}}^{\beta} L_{it}^{\gamma} H_{it}^{\rho}$ (1)

This model expresses the total output or GDP *(Y)* vs. private capital *(K_{pr})*, public capital *(K_{pu})*, the average human capital *(H),* the number of workers *(L)* and other factors (*A)* that affect national production.
Given that public capital *Kpu* is not available in the statistics, it can be approximated by public investment, *Ipu* In its current specification, equation (1) seems incomplete, insofar as they are not seen clearly the variables related to fiscal policy, which can be addressed through public investment, generally funded by internal taxation, backed as was seen above, on direct tax *(DIRT)* and indirect taxes *(INDIRT)* or: $I_{pu} = DIRT + INDIRT = RFISC$ (2)

RFISC represents tax revenue. This variable includes revenues from direct and indirect taxes. It is assumed that tax revenue would have a positive impact on economic growth. Its increase would result in an increase in productive activity. Resources from taxes have a positive effect on growth.

The basis of internal indirect taxes is comprised of the value added tax (VAT) and excise duties. In the WAEMU zone, it is applied in accordance with the principle of economic neutrality, and the VAT Directive 02/98 provides a relatively wide range of rates (15-20%)[6].In terms of internal direct taxation, it is made up of taxes on individual companies or firms (levy on corporate profits), taxes on dividends and tax on income from securities. Assisi essentially on incomes of factors of production, direct taxation lowers the income and thus acts on the location of activities within or outside of regional integration area. Direct taxation is an obstacle to economic activity and can introduce distortions unfavorable to integration (Cadot et *al.,* 2013).Private capital in turn is approximated by the gross fixed capital formation (KAP). Private capital is expected to be a key component of GDP growth. For size reasons, we consider per capita GDP. For the same reasons, I will take the variable, reported revenue to gross domestic product (FISC). I do the same for the variable capital (KAP).

Substituting equation (2) for equation (1) we obtain equation (3): $Y_{it} = A_i KAP_{it}^{\alpha} FISC_{it}^{\beta} L_{it}^{\gamma} H_{it}^{\rho}$ (3)

Taking into account the above mentioned variables and after linearization of the equation (3) we get the following equation: $Ln(Y_{it}) = Ln(A_i) + \alpha Ln(KAP_{it}) + \beta Ln(FISC_{it}) + \gamma Ln(L_{it}) + \rho Ln(H_{it})$ (4)

Where: *ln* is the Napierian logarithm. Differentiating equation (4) with respect to time, we get the equation of the following growth: $y_{it} = a_i + \alpha\, kap_{it} + \beta\ fisc_{it} + \gamma\, l_{il} + \rho\, h_{it} + \nu_t + \varepsilon_{it}$ (5)

Where *y*, *kap*, *fisc*, *l* and *h* represent the GDP growth rate, the stock of private capital, the tax burden, the number of workers and average human capital. The parameter a_i is a constant and α, β, γ and ϱ are the coefficients of elasticity.
The time-specific effect is represented by the term ν_t and the error term, which is independent and identically distributed (iid), represented by ε_{it} . The variable *(H)* represents the average human capital is approximated by the gross intake rate to the last grade of primary, *Teduc* noted. It is the rate of primary school completion. It represents the percentage of students completing the last year of primary school.

This rate is calculated by taking the total number of students in the final year of primary school, minus the number of repeaters in that grade, divided by the total number of age children complete primary education. In addition to the independent variables used in the specification of the theoretical model, we will include in the empirical linear model, the variable commercial open rate *(Touvc)* which is the sum of imports and exports to GDP.

[6]With the exception of Niger (19%), all other WAEMU countries apply a single VAT rate of 18% approximately in the middle of the range. Benin is the pioneer of introducing a single rate VAT in the WAEMU zone in 1991 (Cadot et *al* , 2013).

This variable indicates the extent of trade and could negatively influence the production of the countries of the WAEMU zone because of their low participation in world trade. Finally, we integrate the model variable inflation rate *(Tinfl)* to capture the economic dynamics related to instruments of monetary policy.

The final empirical model is as follows:

$$Tcroiss_{it} = \beta_0 + \beta_1 Tfisc_{it} + \beta_2 Tkap_{it} + \beta_3 Teduc_{it} + \beta_4 Tpop_{it} + \beta_5 Touvc_{it} + \beta_6 T\inf l_{it} + \nu_t + \varepsilon_{it} \quad (6)$$

The data come mainly from the basis of economic and financial data of the CBWAS (Central Bank for West African States) and the WDI database *(World Development Indicators,* 2015) of the World Bank. All variables are expressed in CFA franc is a currency in all the WAEMU countries. These data cover a period from 1980 to 2014, and relate to seven of the eight WAEMU countries: Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal and Togo.The use of panel data model can account for unobserved heterogeneity between countries, which, on one hand, highlights the differences between the countries on the other hand, provides better results. In addition, the double dimension data can account simultaneously of the dynamic behavior and their possible heterogeneity, which is an advantage over other types of data.

4. Analysis of the Results

4.1. Testing the dependence variable cup.

The analysis of the inter-dependence allows to choose, between the first and second generation tests. Indeed, the first generation of tests based on the assumption of no dependence between individuals (in this country). This assumption is not acceptable, firstly in the case of macroeconomic applications (Islam, 1995) in general, and secondly in the case of WAEMU countries, in particular, which share the same currency and mainly export the same types of goods. These countries are certainly affected by common shocks. By cons, second-generation stationary tests postulate interdependence between individuals (Figuière et *al,* 2013).Two individual dependency tests are generally used: the inter-dependence test of Lagrange Multiplier (LM-test) developed by Breusch-Pagan (1980) and the test Pesaran (2004). Our panel has high temporal dimension and low individual dimension. In this case, the Lagrange multiplier test is more suitable.The results of the LM-test of individual independence Breusch-Pagan on our model (6) with a Chi2 value estimated at 62,397, confirming a strong presence of inter-dependence for WAEMU countries.

4.2. Stationary of the model variables.

Before the estimation of the model, that is to say, the model (6), I will first check if the variables are stationary or not. As suggested by the results of the analysis of the inter-independence, we use unit root tests second generation panel to consider the interdependence of variables section. For this, we proceed to the Pesaran (2007) unit root test second-generation, also known as the Pesaran CIPS test *(Cross-Sectionally Agmented* IPS). In addition to considering the dependence in cross section, the Pesaran test also assumes heterogeneity parameters. To Pesaran (2007) test, the null hypothesis is that each individual time series contains a unit root. To ensure the reliability of the results of the stationary test, we will compare the results of the CIPS model with those obtained from the CADF model *(Cross-Sectionally Augmented Dickey-Fuller)* is an approach to Pesaran (2003) substantially close logic least dynamic, which obtained individual t-statistics squares have an independent asymptotic distribution of any nuisance parameter. The results from the application of both unit root tests in second-generation panel are presented in Table 1.

Table 1: Results of the stationary tests of the model variables

Pesaran Unit Root test in panel (CIPS and CADF) : Trend specification					
Series in panel	Lags Number	Level ($X_{i,t}$)		First différence ($\Delta X_{i,t}$)	
		CIPS	**CADF**	**CIPS**	**CADF**
Tcrois	1	I(0)	I(0)	I(0)	I(0)
Tfisc	1	I(0)	I(0)	I(0)	I(0)
Tkap	1	I(0)	I(0)	I(0)	I(0)
Teduc	1	I(1)*	I(1)*	I(0)**	I(0)**
Tpop	1	I(1)*	I(0)	I(0)**	I(0)
Touvc	1	I(0)	I(0)	I(0)	I(0)
Tinfl	1	I(0)	I(0)	I(0)	I(0)
Note: The null hypothesis of Pesaran tests is that the series has a unit root. The rejection of the null hypothesis indicates that the series is stationary. I (1) * means that series is not stationary in level, that is to say, it is integrated of order 1. I (0) ** means that the series is integrated of order 1 level, but is stationary in first differences.					

Overall the two models (CIPS and CADF) lead to very similar results. The test results verifying the presence or absence of a unit root in our series show that the series GDP growth rate per capita growth rate of the tax burden, private investment, inflation and rates trade opening are stationary. For the variable rate of growth of the labor force, there it is stationary in the case of CADF model and unsteady for the CIPS model. These results confirm the absence of unit root for *Teduc* variable when taken in first difference. Thus, we conclude that this series is integrated of order 1; that is to say, *I* (1). Like all series are stationary except for the *Teduc* variable and to some extent the *Tpop* variable, estimating an error correction model is inappropriate, since there can be no co-integration relations model variables.
Although all model variables are not stationary, no co-integration relationship between variables makes improper estimation of error correction model. To correct possible bias autocorrelation and heteroscedasticity, we will rather use an econometric approach PCSE type *(panel-corrected standard errors* corrected or panel with standard errors) as advocated by Beck and Katz (1995). This is preferable to the method of generalized least squares which certainly overcomes biases autocorrelation and heteroscedasticity. However, it is shown that this method provided biased coefficients. By PCSE against the specification provides more robust results while correcting both problems (Beck and Katz, 1995 and 1996).

4.3. Empirical results

The results of my estimates using the *panel-corrected standard errors* estimator are given in Table 2 below[7]. The first results column shows the results of estimating the model (6). The second column shows the estimated model where the variable rate commercial opening is replaced by exports ratios and imports as a percentage of GDP.Apart from the coefficients associated with human capital *(Teduc)* and trade openness *(Touvc),* other coefficients are significant at the 1%, 5% or 10%, and the Wald test to conclude that the model is globally significant.

Table 2: Equation of the growth rate of national output per head

Variables	**Dependante variable:** Real revenue growth rate (*Tcrois*)	
Linear regression, correlated panels corrected standard errors (PCSEs)		
Constant	4.267563(2.47)**	2.37059(1.25)
TPFISC	.0900266(3.32)***	.0815568(2.99)***
TKAP	.0551796(2.93)***	.0517275(2.76)***
TEDUC	.0103365(0.51)	.0100196(0.45)
TPOP	-1.208269 (-2.62)***	-1.061689(-2.34)**
TINFL	-.0930892(-1.86)*	-.0944613(-1.89)*
TOUVC	-1.085723(-0.74)	
EXP		-.0822375(-3.02)***
IMP		.0829295(2.20)**
Countries	7	7
Observations	245	245
Wald chi2	41.25***	53.82***
R-squared	0.1470	0.1694
Note: * = significant at 10% ; ** = significant at 5% et *** = significant at 1%. The t-statistics are presented in brackets.		

These results highlight the theoretical hypothesis of the beneficial effect of taxation on economic growth. It is established that tax revenues have a positive effect on the growth of economies in the WAEMU zone. Indeed, a 100% increase in tax revenue improves the production level of 9%. This result backs up Harberger (1964) and Johansson and *al.* (2008), which shows that the influence of the revenues from the tax on economic growth is weak. In other words, if the improvement in tax revenues appears as a strategic factor of economic growth in theory, the influence of tax revenue growth in the WAEMU countries remains limited in scope.

[7]To ensure the robustness of results, we performed the same estimates using the generalized method of least squares. We obtain very similar results.

The continuation of reforms to put in place a development tax (establishment of a broad based tax, effective tax organization) in the countries of the region will probably achieve higher growth.In another development, the private domestic capital has a positive effect on output and hence on GDP growth in the WAEMU countries. However, even if the expected sign of the parameter associated with this variable is checked, its value is low. A 100% growth in private investment does not cause an increase of around 5% of GDP per head. This can find an explanation, first, the level of importance of the informal sector, on the other hand, the embryonic nature of the production system in these countries. It should be noted that a significant proportion of private enterprises prefer to operate in the informal to evade taxes and hide at the same time the actual level of economic activity. The consequence of the presence of the informal sector is thus a loss of tax revenue which reduces the volume of investments and state activities.

The variable of the population growth rate has an elastic coefficient significantly negative in the regression. This result allows to state that the population growth harms economic growth in the WAEMU countries.Inflation has a negative effect on economic growth. The rise in prices tends to reduce real balances and submit private agents to high transaction costs. This result shows that the negative impact of inflation on economic growth is manifested in the WAEMU countries but is low. A one-point reduction in inflation would earn a tenth of growth point. Inflation appears to be a detrimental factor to economic progress in the countries of the WAEMU zone.Human capital, through the completion rate of primary education has positive elasticity but this positive elasticity is not significant. This does not validate the hypothesis of the positive contribution of human capital accumulation to economic growth (Blankenau and Simpson, 2004). However, the low completion rate of primary education in the WAEMU zone which is 39.29% over the period of analysis can explain the fact that the primary education level is not likely to promote the skills to boost growth. Coulibaly (2015) estimated that the enrollment rate at primary level is beneficial to economic growth; it would have reached the threshold of 83.75%.The variable commercial open rate exerts no influence on the domestic industry. The expected benefits of participation in trade are not yet captured by the countries studied. This result suggests that trade openness is not beneficial to the economic growth of the WAEMU countries. Analysis of the reliability of this result leads us to estimate the effect of imports and exports taken as a percentage of GDP growth. It appears that imports have a negative impact on domestic production. By cons, it is observed that exports have a positive effect on domestic production. In a Keynesian perspective, this means that in the WAEMU countries, the resources from exports and injected into the economy generate a positive change in national income and employment through multiplier mechanism. This result goes in the same direction that forecasts of neoclassical economic theory that participation in trade has positive effects on GDP growth (Grossman and Helpman, 1991; Edward, 1998).

5. Conclusion

The WAEMU countries have adopted in the early 1990s a harmonization of tax policy. This study aimed to investigate the empirical relationship between fiscal policy and economic growth of the countries of the WAEMU zone.Tax revenues, private investments, the rate of inflation and population growth appear as factors exerting a real influence on economic growth. However, contrary to the predictions of economic theory and several empirical studies (Harrison, 1996; Rodriguez and Rodrick, 2000), our study shows that more open trade does not contribute to boost economic growth in the WAEMU zone. As suggested by Edwards (1998) and Greenaway et al (1998), distortions due to the intervention of the trade level State can justify such a result.

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