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Taxation and Economic Growth in Benin: Does the Rate "eat" the Base?

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Abstract

In developing countries where resources are limited and population needs are immense, taxation becomes one of the State's key economic policy instruments. Benin, a small developing economy open to the world, is no exception. It inherits a primarily fiscal budget, which generates considerable interest among economic actors and policymakers. The evolving social needs, accompanied by citizen and union demands, compel the State to engage in tax reforms. This paper aims to estimate the relationship between taxation and economic growth for rational reforms in Benin. The methodological approach, based on the Scully model, shows that there is a link between taxation and economic growth in Benin. The study also reveals a fiscal shortfall for the Beninese economy, where tax pressure is below the required optimum. These findings call for vigorous action by the State, necessitating a rethink of tax policy based on relevant strategic axes.

JEL classification numbers: E62, G28, H21
Keywords: Economic growth, Government, Taxation, Tax pressure, Tax reform.

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1. Introduction

Taxation is considered one of the keys to economic development (OCDE, 2009), and its impact on growth would be unequivocal. However, few economic models place significant importance on tax variables as determining factors of growth (Solow, 1956; Charlot and Schmitt, 1999). The role of taxes in determining growth rates is thus rarely considered (Hamzaoui and Bousselhami, 2017) in traditional economic models. Numerous studies have been devoted to the empirical analysis of the determinants of economic growth, but they often neglect the role of taxation (Brun et al. 1998).

Some authors argue that taxation has a detrimental effect on economic activity and could disturb economic agents, causing distortions in the economy (Hall and Jorgenson, 1967; Mirrlees, 1971; Diamond, 1975) to avoid distortions like the "crowding-out effect" (Goolsbee 1998; Yamarik, 2000; Stiglitz, 2015). Others, however, see taxation as a powerful economic policy instrument capable of positively influencing economic activity (Keynes, 1936), preventing economic crises, stimulating growth, and reducing social inequalities (Valenduc, 2011).

In developing countries, where resources are limited, and population needs are immense, fiscal policy becomes one of the State's preferred policies (Hamzaoui and Bousselhami, 2017). Benin, a small developing economy open to the world, inherits a primarily fiscal budget, generating much interest from economic actors and policymakers. This budget, composed of mandatory levies like personal income tax (IRPP), corporate tax (IS), and consumption taxes, often sparks controversy in a country where private initiatives are underdeveloped. The evolution of social needs, followed by citizen and union demands, forces the State to undertake tax reforms.

Despite this, for over 20 years, the Beninese economy has returned to economic growth, resulting in its inclusion in the group of Middle-Income Countries (MIC) as of 2021, with a budget that has grown year after year. There seems to be a link between these two economic phenomena (economic growth and taxation). Furthermore, many economic actors continue to criticize the current tax regime, which they believe imposes relatively high tax pressure, considering their contributory capacity. Conversely, the government believes otherwise, aiming to increase the tax pressure rate from 11.4% in 2023 to 16% by 2026, arguing that several tax incentives, ranging from tax reductions to exemptions, already define its tax policy. In developing countries, few studies seem to have analyzed the impact of tax structures on economic growth (Moussavou, 2017), making it interesting to study the relationship between taxation and economic growth in Benin. This research presents an opportunity to analyze the optimal tax pressure level compatible with the Beninese economy.

To rigorously address this concern, this study is organized as follows: The first section presents the theoretical basis of the relationship between taxation and economic growth, followed by an empirical review in the second section. The third section applies an econometric model to the specific case of Benin.

2. Theoretical Basis of the Link Between Taxation and Economic Growth

Several studies have examined the impact of taxation on economic growth, primarily through State intervention, and the literature on this subject has evolved considerably. As Coulbois (1967) points out, State intervention in the economy has been a constant phenomenon. It has given rise to numerous controversies about the weight of mandatory levies and the dramatic increase in public spending. Two main approaches dominate this issue: interventionist theses and contesting currents.

2.1 Interventionist Theses

This economic school of thought explains and justifies the increase in public spending and mandatory levies. It defends the rise of State intervention in financing the national economy through taxation. Wagner (1872) cites three reasons to justify this evolution: industrialization, the increase in per capita income, and the growth in equipment size.

Peacock and Wiseman (1961) revisited this concern. In their "displacement effect" theory, they argue for increased public spending (following wars and economic crises), which conditions the State to adopt expansive fiscal policies. The median voter theory, another interventionist perspective, suggests that the rise of the middle class will be a growth factor in public spending due to electoral promises since this class benefits the most from these resources.

The Keynesian thesis also justifies increasing public spending due to the need for public authorities to address persistent and unpredictable imbalances (e.g., the 1929 crisis). For Keynesians, markets left to themselves do not necessarily lead to the required economic optimum. Thus, the State has a role to play in economic management, particularly in the context of economic recovery policies. In such a context, the State should provide incentives through fiscal and monetary policies to achieve full employment or the best possible economic state.

The Keynesian theory has been criticized, particularly through empirical studies, which challenge the hypothesis of necessary State intervention to achieve equilibrium.

2.2 Contesting Currents Against State Intervention

The rejection of State intervention in the economy is primarily advocated by neoliberals, who argue that "market mechanisms are superior to public economic and social interventions." Their core idea is that "State interventions in the economy should be reduced or even eliminated altogether." Three main approaches, along with the crowding-out approach, form the basis of this neoliberal analysis.

The "supply-side economists" argue that "too much tax kills the tax." This assertion, promoted by figures such as Say (1803) and Laffer (1981), summarizes their position against persistent State intervention in the economy. Using the famous Laffer curve (1981), Laffer demonstrates that "the more labor income (wages) is

taxed, the more individuals are incentivized to reduce their paid working hours, resulting in less tax revenue for the State." According to him, reducing public spending and tax burdens would stimulate economic recovery. He advocates for reducing mandatory levies and public spending, particularly social benefits, to maintain incentives for work, savings, production, and the revitalization of productive activities.

Another approach within this school of thought is the "multiple-choice approach," which criticizes the excessive levels of public spending and mandatory levies. Relying on financial asymmetry, authors such as Buchanan and Tullock (1962) argue that the increase in public spending, stemming from politicians' electoral promises, creates a significant imbalance between the citizens benefiting from these resources and those bearing the corresponding mandatory levies.

Furthermore, based on agency theory (also known as bureaucracy theory or property rights theory), some authors (Akerlof, 1970; Leland and Pyle, 1977; Stiglitz and Weiss, 1981) argue that "performance efficiency is linked to the ability of owners to control the use of their property in the private sector." They contend that public production is less efficient than private production because public spending is not driven by profit-seeking, and the private sector operates under a dual control system: owner control (focused on maximizing profit, thus avoiding waste) and consumer control (ensuring perfect alignment with customer preferences). According to these authors, the lack of control in the public sector leads to inefficiency or underperformance, making taxation an obstacle to economic rationality.

Similarly, the theory of rational expectations is based on Ricardo's equivalence theorem (Barro, 1990). According to this theorem, "a tax reduction financed by increased public debt does not have the expected expansionary effect (stimulating demand) because private agents immediately anticipate future tax increases and therefore save the additional disposable income to meet future tax obligations." This suggests that fiscal regulation policies are ineffective and unnecessary. Authors of this school of thought, such as Barro (1990) and Lucas (1988), argue that economic agents, knowing how the economy and economic policies work, view public spending as leading to future tax increases, prompting them to save rather than spend.

The rejection of State intervention in the fiscal sphere was also defended by Friedman (1994), who explained the negative impact of fiscal policy on private sector activities, which it crowds out. This phenomenon, known as the "crowding-out effect," manifests in two distinct ways:

- *Direct crowding-out*: increased public spending leads to a contraction in private spending (private investments) as taxes rise,
- *Indirect or financial crowding-out:* private companies are partially crowded out of the financial market by government borrowing aimed at financing budget deficits. The intensity of this indirect crowding-out effect depends on the savings rate.

It is also worth noting that the theory of endogenous growth has explored the impact of taxation on economic growth, although not as extensively as in previous cases.

This (new) theory uses analytical tools from liberal theory (Montoussé, 2003). Pioneers of this theory, such as Romer (1986) and Lucas (1988), reject the essential role of the State in economic growth, although they acknowledge that it can potentially promote long-term growth. In the early 1990s, Barro (1990) demonstrated the critical role of infrastructure investment in endogenous growth, where such investments represent a high-quality production factor through the positive externalities they generate, enabling the economy to reach its optimal growth level. Therefore, State intervention (through fiscal policy) is justified.

From the above, it is evident that the theoretical literature on the impact of taxation on economic outcomes is rich with both supportive and opposing perspectives. Taxation can have both negative and positive effects on economic growth. The negative effect could be due to distortions in choices and discouraging factors inherent to taxes (Easterly and Rebelo, 1993), while the positive effect could stem from spending financed by taxation (Engen and Skinner, 1996). Despite this diversity of theoretical outcomes, several empirical studies have sought to confirm or refute this relationship.

3. Empirical Review of the Link Between Taxation and Economic Growth

The link between taxation and economic growth has been the subject of several studies. However, the results are often mixed and vary depending on the theoretical framework adopted (neo-classical growth models or endogenous growth models), the production factor being taxed (capital or labor), production techniques, and the human capital accumulation process (Brun et al. 1998). In developing countries, few studies seem to focus on this issue (Moussavou, 2017).

3.1 Positive Effect of Taxation on Economic Growth

Several studies have established the positive impact of tax structures on economic growth (Corlett and Hague 1953; Heady 1987). These authors view taxation as a tool to stimulate productive activity.

In certain OECD economies, Tosun and Abizadeh (2005) analyzed the link between taxation and economic growth. Their study revealed a positive influence of taxes, especially those on personal income and property, on economic growth. Conversely, they found that taxes on wages and goods and services had the opposite effect.

In a follow-up study, using a panel data regression with the ordinary least squares method, Macek (2014) analyzed the impact of taxation on the economic growth of OECD countries. The results showed that corporate and personal income taxes positively affected economic growth.

This experiment was replicated in 28 European countries by Stoilova (2017). Relying on panel data, the study found that several taxes positively impacted economic growth.

Although studies focusing on the impact of taxation on economic growth are rare in Africa (Moussavou, 2017), Babatunde et al. (2016), cited by Haddouchi et al. (2023),

examined the impact of taxation on economic growth in Africa. These authors concluded that tax revenues positively affect economic activity and, by extension, economic growth.

Using Scully's optimization model and data from 2002 to 2021, Haddouchi et al. (2023) estimated a tax shortfall of 2% of GDP for optimal growth. According to the authors, this shortfall can be explained by a narrow tax base and weak tax enforcement, which foster tax evasion and avoidance. Following this analysis, the authors suggest the need for deep tax reforms to promote economic growth, efficiency, and equity in the tax system (Moussavou, 2017).

3.2 Negative Effect of Taxation on Economic Growth

Several studies have found a negative relationship between taxation and economic growth. Koester and Kormendi (1989) examined 63 economies over the period 1970-1979 and found a negative relationship between average tax rates and economic growth. These results were also observed by Tanzi and Zee (1997) in a study on fiscal policies and long-term growth.

Using an ARDL approach, Dladla and Khobai (2018) examined the link between taxation and economic growth in South Africa. They found a negative relationship between the two parameters, confirming that increasing taxes harms economic activity.

Lee and Gordon (2005) conducted a study of 70 countries using a panel data approach with fixed effects and pooled regression. Their goal was to estimate the relationship between taxation and economic growth. The results revealed that corporate tax rates were negatively correlated with growth rates. The econometric specifications for this study showed that a 10% reduction in corporate tax rates led to a 1% to 2% increase in growth rates. Similarly, a study conducted by Zellner and Ngoie (2015) on the U.S. economy, based on a Marshallian macroeconomic model, reached the same conclusion: reducing tax rates positively impacts economic growth. The results showed that a 5% reduction in income and corporate tax rates increased real GDP growth by about 3%.

Padda and Akram (2009) also found similar results in their study of several South Asian economies: any tax increase reduces per capita output, though this increase has no permanent effect on growth.

In sum, as Haddouchi et al. (2023) point out, the relationship between taxation and economic growth remains a crucial issue that interests theorists, policymakers, and researchers, although it has been little studied in developing countries (Moussavou, 2017). The studies mentioned above show that the effects of taxation on economic growth are variable and depend on the specific characteristics of the economy studied. In the case of Benin, this issue is still relevant and warrants econometric specification to verify the facts and provide recommendations for economic policy.

4. Estimating the Relationship Between Taxation and Economic Growth

The aim of this study is to understand the type of relationship that exists between taxation and economic growth in Benin. To achieve this, we need to derive an analytical tool that responds to this concern.

4.1 Methodological Approach

Many econometric models have been used to study the impact of tax structures on economic growth, most of them focusing on panel data (Moussavou, 2017). In this study, the methodological approach adopted to estimate the relationship between taxation and growth in Benin is based on Scully's (1996) two-sector model, which divides the economy into the private and public sectors (represented by the government). The latter provides public goods (through labor and capital), exclusively financed by tax revenues. Private goods, on the other hand, are produced by the private sector using untaxed revenues. As a result, total production (final goods) results from the activities of both sectors. Under this assumption, the model takes the form of a Cobb-Douglas production function with constant returns to scale:

$$\boldsymbol{Y_t = a(G_{t-1})^b[(1-\tau)Y_{t-1}]^c} \quad (1)$$

Where Y, G and τ represent GDP (gross domestic product), government spending, and tax pressure, respectively.

Assuming a balanced budget where all public expenditures are financed by tax revenues, we can write:

$$\boldsymbol{G_t = \tau Y_t} \quad (2)$$

By substituting equation (2) into equation (1), we get:

$$\boldsymbol{Y_t = a(\tau_{t-1}Y_{t-1})^b[(1-\tau)Y_{t-1}]^c} \quad (3)$$

The logarithmic transformation of equation (3) gives:

$$\boldsymbol{\log(Y_t) = \log(a) + b\log(\tau_{t-1}Y_{t-1}) + c\log[(1-\tau_{t-1})Y_{t-1}] + \varepsilon} \quad (4)$$

The optimal tax rate τ∗ that maximizes growth is obtained from the following relation:

$$\boldsymbol{\tau^* = \frac{b}{(b+c)}} \quad (5)$$

Following Scully (2000), equation (4) will be estimated using the ordinary least squares (OLS) method. In this case, we use a time series covering the period 1995-2023. The data for GDP (Y) and tax pressure (τ) are obtained from INStaD (National Institute of Statistics and Demography).

4.2 Results and Comments

The results of the current production equation are presented in the following table:

Table 1: Results of the estimation of the relationship between taxation and economic growth in Benin

Variable	Coefficient	Std, Error	t-Statistic	Prob, *
Constante	2,016	0,92126	2,189	0.0362*
Private Sector Disposable Income (Y)	0,707	0,11228	6,296	0,0000***
Tax pressure (τ)	0, 234	0,08868	2,636	0,010**
R-squared	0.9722			
Adjusted R-squared	0.9704			
F-statistic	541,3			
Prob (F-statistic)	0,00000	DW = 2.7739		

*: Significant to 10%; **: Significant to 5%; ***: Significant to 1%
Source: Author (Our estimation using R-studio)

These results first indicate that the model is well specified overall, with a high explanatory power (R^2 = 0.9704, close to 1); Prob (F-statistic) = 0.000000; DW = 2.77 (close to 2).
Next, all the variables used in the model are significant at 5% and conform to the expected signs.
The current production equation is as follows:

$$\mathbf{log}(\boldsymbol{Y_t}) = \mathbf{2,016} + \mathbf{0,234}\ \mathbf{log}\ (\boldsymbol{\tau_{t-1}Y_{t-1}}) + \mathbf{0,707}\ \mathbf{log}\ [(\mathbf{1} - \boldsymbol{\tau_{t-1}})\boldsymbol{Y_{t-1}}] + \boldsymbol{\varepsilon} \qquad (6)$$

The optimal tax pressure rate is then equal to:

$$\boldsymbol{\tau}^* = \frac{\mathbf{0,234}}{(\mathbf{0,234+0,707})} = \mathbf{24,86}\%$$

This optimal tax rate $\tau*$=24.86% indicates a fiscal shortfall for Benin's economy, whose average tax pressure rate (over the decade 2014-2023) stands at τ=10.36%, resulting in a gap of approximately $\Delta\tau$=14.50%.
These results call for vigorous action from the State, requiring a rethinking of fiscal policy under relevant strategic constraints. In other words, the Beninese State must strengthen its capacity to exercise its fiscal power. However, this prerogative is

compromised by the prominence of the informal economy and sociological barriers (Yehouessi 2022). In a country where sovereign needs are growing exponentially and the informal business rate reached 85.9% in 2023 (INStaD 2023), the government must increase communication and awareness efforts (especially towards economic operators) and establish strategies to strengthen a tax culture worthy of the name. This is particularly important given that Benin's fiscal effort remains weak, with an average tax effort rate of 6.615% over the period 1990-2019 (Base 1989 = 100%) (MEF 2020). This rate highlights the possibility for the State to mobilize additional resources.

Furthermore, the State must consolidate and reinforce coercive actions against proven cases of tax fraud and evasion. Therefore, the State's repressive strategies must be strengthened with advanced equipment, particularly given that, according to Ecofin Agency cited by Yehouessi (2022), $211 million in profits (over 140 billion CFA francs) were illegitimately transferred from Benin in 2021.

5. Conclusion

In an international context marked by the scarcity of public resources, the relationship between taxation and economic growth is back on the agenda, fueling numerous debates among policymakers, scientists, and even the general population. Although opinions on the matter remain diverse and extensive, the specific case of Benin indicates that the tax pressure is still low and has not yet reached its optimum. "The tax rate does not eat the tax base." This result aligns with Haddouchi et al. (2023) for Morocco. It also converges with Moussavou (2017) for Congo, where, in the long term, taxes on personal income and taxes on goods and services positively impact economic growth. It is also partially consistent with Ayira's (2012) findings for Togo, where the author concluded that income tax and value-added tax (VAT) promote growth, while corporate tax and professional taxes hinder the growth of small and medium-sized enterprises (SMEs).

Moreover, it calls on Beninese public authorities to broaden the tax base by reducing the informal business rate, which remains high, combating tax fraud, and minimizing the risks of tax evasion. As a developing country with a primarily fiscal budget, Benin must increase its revenues to meet the many sovereign expenditures it faces. In conclusion, we assert that the tax rate does not eat the tax base. On the contrary, it is the base that tends to consume the tax rate, which remains far below the optimal rate. Under these conditions, the national fiscal policy must be rethought and rigorously applied.

References

[1] Akerlof, G. (1970). The market of lemons: qualitative uncertainty and the market mechanism. Quarterly Journal of Economics, 84, 488-500.
[2] Ayira, K. (2012). Les PME et la Politique Fiscale Nationale: Effets d'éviction ou de complémentarité dans l'économie togolaise? Rapport de Recherche du FR-CIEA N0. 40/12 CRDI,
[3] Babatunde, S. O., Sani, B. and Sani, I. D. (2016). Determining the optimal public debt Threshold for Nigeria. CBN Journal of Applied Statistics, 7(2), 1–25.
[4] Barro, R. (1990). Government spending in a simple model of endogenous growth. - Journal of Political Economy, pp :103-125.
[5] Brun, J.F., Chambas, G. and Combes, J.L. (1998). La politique fiscale agit-elle sur la croissance?, Revue d'Economie du Développement, P: 115-125.
[6] Buchanan, J. M. and Tullock, G. (1962). The Calculus of Consent, Logical Foundations of Constitutional Democracy, The Collected Work of James M. Buchanan, Liberty Fund
[7] Charlot, S. and Schmitt, B. (1999). Infrastructures publiques et croissance des régions françaises. UMR INRA-ENESED.
[8] Corlett W.J. and Hague D C. (1953). Complementarity and the excess burden of taxation, Review of economic studies, n° 21.
[9] Coulbois, P. (1967). Éléments pour une théorie de la politique des revenus- Annales de la Faculté de Droit et des Sciences politiques et économiques de Strasbourg. Volume 43, numéro 2, Juillet-septembre 1967Librairie Dalloz, Paris
[10] Diamond, P. (1975). A many-person Ramsey tax rule. Journal of Public Economics, 4(4), 335-342.
[11] Dladla, K., and Khobai, H. (2018). The impact of taxation on economic growth in south africa. Munich: Personal RePEc Archive.
[12] Easterly, W. and Rebelo, S. (1993). Fiscal Policy and Economic Growth: An Empirical Investigation. Journal of Monetary Economics, 32, 417-458. http://dx.doi.org/10.1016/0304-3932(93)90025-B
[13] Engen, E. M. and Skinner, J (1996). Taxation and Economic Growth. National Tax Journal, Vol. 49, No. 4, 1996, pp. 617-642.
[14] Friedman, M. (1994). Govemments Can Use Incentives Rationally. Economic Development Review, Vol. 12, no. 4, pp. 25-29.
[15] Goolsbee, A. (1998). Investment tax incentives, prices, and the supply of capital goods. The Quarterly Journal of Economics, 113(1), 121-148.
[16] INStaD (Institut National des Statistiques et de la Démographie) (2023). Rapport d'analyse sur la deuxième édition de l'enquête sur la migration au Bénin.

[17] Haddouchi, A., Bouzahzah, M. and Angour, N. (2023). Fiscalité et croissance économique Revue Française d'Economie et de Gestion « Volume 4: Numéro 10 - pp: 170 – 180.
[18] Hall, R. E. and Jorgenson, D. W. (1967). Tax policy and investment behavior. The American Economic Review, 57(3), 391-414.
[19] Hamzaoui, M. and Bousselhami, N. (2017). Impact De La Fiscalite Sur La Croissance Economique Du Maroc - European Scientific Journal February 2017 edition Vol.13, No.4 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431
[20] Heady C. (1987). A diagrammatic approach to optimal commodity taxation, Public finance, 42.
[21] Keynes, J. M. (1936). Théorie générale de l'emploi, de l'intérêt et de la monnaie (livres I à III) - Traduit de l'Anglais par Jean- de Largentaye (1942)
[22] Koester J., Reinhard B. and Kormendi R.C. (1989). Taxation, aggregate activity and economic growth:cross-country evidence, Journal of publc economics, 80, 604-617.
[23] Laffer, A. (1981). Supply side economics. Financial Analysts Journal, Volume 37: numéro 5, pp: 29-44.
[24] Lee, Y. and Gordon, R. (2005). Tax structure and economic growth, Journal of Public Economics, Volume 89, pp :1027-1043.
[25] Leland, H. and Pyle, H. "Informational Asymmetries, Financial Structure, and Financial
[26] Intermediation," Journal of Finance, Vol. 32, No.2 (May, 1977):371-387.
[27] Lucas.R, (1988). On the Mechanics of Economics Development, Journal of Monetary Economics, vol 22, num 3-42.
[28] Macek, R. (2014). The impact of taxation on economic growth : Case study of OECD Countries. Review of Economic Perspectives.
[29] MEF (Ministère de l'Economie et des Finances) (2020). Examen du potentiel fiscal du Bénin – Document de travail 04/2020.
[30] Mirrlees, J. A. (1971). An exploration in the theory of optimum income taxation. The Review of Economic Studies, 38(2), 175-208.
[31] Moussavou, F. (2017). Impact Des Structures Fiscales Sur La Croissance Economique Au Congo-Brazzaville - European Scientific Journal December 2017 edition Vol.13, No.34 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431
[32] Montoussé, M. (2003). Théories économiques, Bréal, Rome.
[33] Padda, I. and Akram, N. (2009). The impact of tax policies on economic growth: Evidence from South-Asian Economies. The Pakistan Development Review, numéro 48, pp: 961-971.
[34] OCDE, (2009). Objectifs Croissance: Chapitre-5: Fiscalité et croissance économique, Réformes Economiques, n°5, 2009/1. Ed de l'OCDE.
[35] Peacock, A. T. and Wiseman, J. (1961). The Growth of Public Expenditure in The United Kingdom - Princeton University Press, ISBN: 0-87014-071-X - URL: http://www.nber.org/books/peac61-1
[36] Romer, P. (1986). Increasing Returns and Long Run Growth, The Journal of Political Economy, vol 94, num 5, p 1002-1037, October 1986.

[37] Say, J. B. (1803). Traité d'économie politique
[38] Scully, G. (1996). Taxation and economic growth in New Zealand. Pacific Economic Review, pp: 169-177.
[39] Scully, G. (2000). The growth maximizing tax rate. Pacific Economic Review, Volume 5 : numéro 1, pp : 93-96.
[40] Solow, R. (1956). A contribution to the theory of economic growth. The Quarterly Journal of Economics, Volume 70: No 1, pp : 65-9.
[41] Stiglitz, J. E. (2015). The theory of credit and macroeconomic stability. In Financial regulation: A transatlantic perspective (pp. 13-27). University of Pennsylvania Press.
[42] Stiglitz, J. and Weiss A. (1981). Credit Rationing in Markets with Imperfect Information, American Economic Review (71), pp. 393-410.
[43] Stoilova, D. (2017). Tax Structure and Economic Growth: Evidence from the European Union. Contaduria Administracion 66(3), 1041-1057.
[44] Tanzi, V. and Zee, H. (1997). Fiscal policy and long-run growth, IMF Staff Papers, 44 (2), 179- 209.
[45] Tosun, M.S. and Abizadeh, S. (2005). Economic Growth and Tax Components: An Analysis of Tax Changes in OECD. Applied Economics, 37, 2251-2263.
[46] Valenduc, C. (2011). Quelle structure des prélèvements pour quelle croissance? Les Cahiers, le cercle des économistes, PUF, Ed. Descartes & Cie.
[47] Wagner, A. (1872). Les fondements de l'économie politique (1872), traduit par Léon Polack (1904), Bibliothèque Internationale d'Economie Politique, Paris 1904
[48] Yamarik, S. (2000). The impact of state and local public services on economic development. The Annals of Regional Science, 34(3), 373-391.
[49] Yehouessi, B. A. (2022). L'impôt en Afrique de l'ouest francophone - L'exemple du Bénin –Etudes africaines, Edition l'Harmattan.
[50] Zellner, A. and Ngoie, J. K. (2015). Evaluation of the Effects of Reduced Personal and Corporate Tax Rates on the Growth Rates of the U.S. Economy, - Working Papers 280, Economic Research Southern Africa.

APPENDICES

Appendix 1: Statistical Datas

t	Y_t ($ US current)	τ_t
1989	1 502 294 416	7,24
1990	1 959 965 330	5,41
1991	1 986 437 797	6,11
1992	1 695 315 306	7,02
1993	2 274 558 083	7,40
1994	1 598 075 944	7,55
1995	2 169 627 138	8,29
1996	2 361 116 449	8,57
1997	2 268 301 646	8,71
1998	2 455 092 686	9,11
1999	3 677 393 999	8,87
2000	3 519 991 440	9,44
2001	3 666 222 635	13,50
2002	4 194 342 686	14,44
2003	5 349 258 094	14,86
2004	6 190 270 380	14,55
2005	6 567 654 954	14,53
2006	7 034 111 315	14,09
2007	8 169 048 383	15,62
2008	9 787 734 526	16,04
2009	9 738 626 517	14,94
2010	9 535 345 016	15,24
2011	10 693 321 364	14,50
2012	11 141 358 116	10,52
2013	12 517 845 124	10,81
2014	13 284 527 847	10,69
2015	11 388 160 997	10,59
2016	11 821 065 852	9,15
2017	12 701 655 846	9,66
2018	14 262 408 080	10,25
2019	14 390 708 757	10,59
2020	15 686 741 894	9,4
2021	17 687 623 535	10,60
2022	17 396 792 700	11,3
2023	19 673 284 690	11,4