



BCEAO
BANQUE CENTRALE DES ETATS
DE L'AFRIQUE DE L'OUEST



COFEB
CENTRE OUEST AFRICAIN DE FORMATION
ET D'ETUDES BANCAIRES

COFEB ABSTRACTS

No. ABC/2022/06/008

ANALYSIS OF FACTORS EXPLAINING THE TAX EFFORT AND TAX POTENTIAL IN WAEMU COUNTRIES

SEPTEMBER 2022



BCEAO
BANQUE CENTRALE DES ETATS
DE L'AFRIQUE DE L'OUEST



COFEB
CENTRE OUEST AFRICAIN DE FORMATION
ET D'ETUDES BANCAIRES

GENERAL DIRECTORATE OF COFEB
DIRECTORATE OF RESEARCH AND PARTNERSHIPS

COFEB ABstracts

No. ABC/2022/06/008

ANALYSIS OF FACTORS EXPLAINING THE TAX EFFORT AND TAX POTENTIAL IN WAEMU COUNTRIES

SEPTEMBER 2022

*The opinions expressed in this paper are the sole responsibility of
the authors and do not represent those of the BCEAO*

PREAMBLE

The West African Center for Banking Studies and Training (COFEB) is the Central Bank of West African States (BCEAO) entity in charge of capacity-building activities and economic and financial research. Since November 2019, the highest authorities of the Bank have decided to transform this Regional Center by expanding its mandates with the creation of three Directorates, namely, the Teaching and Training Programs Directorate, the Research and Partnerships Directorate and the Administrative Affairs and Communication Directorate, under the responsibility of a General Manager.

Through this institutional transformation, the vision of the BCEAO authorities is to make COFEB a renowned international center of excellence in training and research. Like all central banks, the BCEAO must play a leading role in the process of generating knowledge and disseminating it to the public and policymakers. This will contribute to the transparency process recommended by international standards. In addition, as an economic and financial advisor to Governments, it has a duty to inform and raise awareness among national authorities about new challenges and solutions to their economic issues..

Within this framework, several technical studies, based on quantitative methods, are published each year on topics of great interest to the economies of WAEMU. To disseminate the main messages and lessons learned from these technical studies, we have deemed it useful to create a new publication series called "COFEB ABstracts or ABCs".

In this series, research findings are summarized and expressed in readily accessible language.

In fact, the "COFEB ABstracts" are intended to help highlight the findings of studies and research conducted at BCEAO, with a view to reaching the widest possible audience and enlightening policymakers on specific economic and financial issues.

Ousmane SAMBA MAMADOU,
General Manager of COFEB

ABOUT THE TOPIC OF THE STUDY

This sixth issue of the 2022 "COFEB ABstracts" series focuses on the theme entitled "Analysis of factors explaining the tax effort and tax potential in WAEMU countries". It is derived from a study published in the BCEAO Working Paper Series (Document d'Etude et de Recherche, DER) No. COFEB/DER/2021/03 and conducted by Gbêmèho Mathieu Trinnou in December 2021.

In a context marked by the COVID-19 pandemic and the Russian-Ukrainian war, with their adverse impact on economies worldwide, particularly on production costs and public budgets, the issue of mobilizing resources to finance development remains a key challenge for WAEMU countries.

The study at the source of the present Abstract is a contribution to the global debate on the means of financing public policies, especially through internal resources, of which tax revenues are a major component within the WAEMU. A better understanding of the tax potential of the Union and the mechanisms for collecting these resources is crucial and vital to their economies.

With this objective, the study identifies the main factors determining tax potential, and assesses the steps taken to mobilize its revenues. The methodology used is a stochastic frontier model from Kumbhakar et al. (2014). The results highlight the under-utilization of tax potential in the Union's countries, and consequently the scope for increasing government revenues. Among the variables determining tax potential are real and institutional variables, such as per capita income, value added in the various sectors of activity, trade openness, corruption, and citizen empowerment, as well as other variables from the financial and monetary sectors, such as the financial development index and inflation.

In terms of recommendation, it would therefore be appropriate to act on two revenue levers, i.e., tax potential and tax effort, with a view to sustainably increasing internal resources, through measures aimed at steering the determining variables in a favorable direction to improve them. This will be a factor to reduce the WAEMU countries' dependence on external resources, in particular foreign debt.

Ndèye Amy NGOM SECK,
Director, Research and Partnerships

Introduction

Mobilization of internal resources, in particular tax revenues, plays a key role in financing development. In the literature, there is a focus on efficiency in tax revenue mobilization, which implies the implementation of effective policies and efficient government agencies to achieve this goal.

This study explores the issue of fiscal resources by analyzing the tax potential and tax effort of WAEMU countries. On the one hand, this involves the identification of the main factors that determine the tax potential of the Union's countries, i.e., the theoretical maximum level of tax revenue (expressed as a percentage of GDP) that they can collect, in relation to the structural properties of their economies. On the other hand, it assesses their tax efforts, in order to evaluate the flexibility they may have to improve public policies and enhance the performance of the tax authorities. To achieve these aims, the study uses a stochastic frontier model derived from the study by Kumbhakar et al. (2014). The conclusions highlight the under-utilization by Union countries of their tax potential, and therefore the existence of available budgetary space for States members to take vigorous action on the main levers of tax revenue mobilization.

I. Interest of the study

This study¹ is of particular interest because the currently ongoing global crises, and particularly the COVID-19 pandemic, have led to exceptional expenditure and stimulus plans to boost economic growth, entailing a need for substantial financial resources in the WAEMU Member States. External resources (grants and loans) remain volatile, as they are dependent on trends in the international economic situation. In addition, there is a downward trend in grants on the global scale and, in the case of loans, the depreciation of the national currency increases the amount of debt servicing in local currency.

In this context, efficiency in the mobilization of domestic resources, of which tax revenue is a major component, remains essential not only to ensure the implementation of these plans, but also to continue financing the development expenditure of the Union's Member States. In order to accomplish this, it is important to identify the tax potential of each State, the level of realization of this potential (tax effort) and the main variables that determine it.

1 - Gbêmèho Mathieu TRINNOU, DER No. COFEB/DER/2021/03, December 2021

II. Methodological approach

The methodological approach consists of two parts.

The first is to identify the explanatory factors of tax potential. In other words, the aim is to determine the variables that affect the overall tax revenue capacity of WAEMU countries.

The second stage assesses the overall tax effort of these countries, by estimating the value of the tax effort induced by tax policy measures and thus reflecting the performance of the tax authorities.

On this basis, a stochastic frontier model was used, inspired by the work of Kumbhakar et al. (2014). The estimation method allowed the identification of the determinants of tax potential and the estimation of the time-varying tax effort, which reflects the degree of performance of the tax authorities, and the time-invariant tax effort, which reflects the contribution of tax policies. These estimates were used to calculate the overall tax effort, which results from the combination of these two factors.

III. Study results, lessons learned, and recommendations

The analysis of the results showed that the variables that determined the tax potential of WAEMU member countries were real GDP per capita, the shares of the secondary and tertiary sectors, trade openness, the financial development index, and controlled inflation. Whereas the informal nature of the primary sector had a negative impact on the growth of tax revenues.

In addition, at institutional level, the results confirmed the negative impact of corruption on tax revenue mobilization. Increasing the empowerment of the citizens of the Union's countries would be beneficial in terms of improving the tax burden rate.

The Union's overall tax effort stood at 78.1%. This means that the combination of tax policies and the performance of the tax authorities have allowed the WAEMU Union to achieve 78.1% of its tax potential. There is therefore room for growth in the overall tax effort, reflecting the budgetary space available to public authorities. These results were also computed for each Member State, and considerable variations were found between them.

Based on these observations, it is possible to improve the tax potential of the Union's countries. In this respect, measures should be taken to act sustainably on the variables identified as determining tax potential. These could include :

- broadening the tax base, in particular through higher per capita income and value added in the various sectors, with modernization of activities in the primary sector,
- improving financial inclusion, in order to contribute to financial development,
- tackling corruption through effective enforcement of sanctions, and
- raising public awareness of the benefits of paying taxes.

In terms of steps to be taken to improve the tax effort, public authorities should do more to explain laws and regulations to citizens, while simplifying tax payment procedures, for example, by fully digitizing the related processes. Moving forward, priorities should include improving the performance and efficiency of the tax authorities, by appointing competent managers, and setting clear objectives for those in charge.

West African Center for Banking Studies and Training (COFEB)

Avenue Abdoulaye Fadiga - BP : 3108 Dakar - Sénégal

Tél. : 00 221 33 839 05 00 - Fax : 00 221 33 823 83 35

Contact : courrier.zdrp@bceao.int

<https://cofeb.bceao.int/>