Trade Liberalization and Economic Performance in the ECOWAS Zone: A Granger Causality Analysis

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ABSTRACT: Understanding the causal link between trade liberalization and economic performance enables a better analysis of the likely impact of the former on the latter and vice versa. It is also highly important for analyzing the potential of trade liberalization to improve people's well-being in the mid-long term. Thus, this paper seeks to analyze the causal relationship between trade liberalization and economic performance in the ECOWAS zone. The Granger causality approach has been applied to this end on a panel including twelve (12) countries over the period 2000-2017. The results show that trade liberalization does not cause any of the economic performance variables examined in the study. This raises the challenge for economic policy makers to rigorously assess trade agreements and policies and to take into account certain macroeconomic aspects and country-specific characteristics of the West African community.

KEYWORDS: Trade liberalization, Economic performance, Granger causality, ECOWAS.

1   INTRODUCTION

For a long time not well considered in the theories of economic growth, foreign trade or trade policies have regained their importance in economic policies very recently. The main research in the 1980s, including that of endogenous growth theorists such as [1], [2]; [3]; [4]; and [5], established a positive relationship between foreign trade and economic growth. Moreover, since the failure of import-substitution industrialization strategies in developing countries and under the auspices of both the Bretton Woods institutions and the World Trade Organization (WTO), a number of countries have committed themselves to a process of trade liberalization. The prevailing belief is that openness to foreign trade is the privileged channel that is likely to have a positive impact on economic growth. The conclusion of [6] that open economies have grown faster than those that adopted protectionism over the past three decades, has reinforced this widespread belief. In addition, other studies have even demonstrated the positive and significant impact of trade liberalization policies on some variables of economic performance. In fact, trade liberalization promotes the reduction of production costs and thus increases production and consequently job creation. In this respect, liberalization encourages the inflow of foreign direct investment (FDI) as it attracts multi-national companies that are looking for lower production costs [5]. In fine, imports and exports increase.

In this spirit, the Economic Community of West African States (ECOWAS) countries have undertaken a progressive trade liberalization process, mainly under the auspices of the WTO. While respecting the fundamental principle of non-discrimination of the organization, ECOWAS countries also apply Article 24 of the GATT and sign united, bilateral and multilateral trade agreements. In fact, the community is strengthening its regional integration process[1] through the launch of its Common External Tariff (CET)[2] in 2015. On the other hand, the region has set up and implemented the trade liberalization scheme (ETLS) to facilitate the free movement of goods and services in space. In addition, as a trading bloc and individually, ECOWAS Member

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[1] RTAs or regional integration is a step towards multilateral trade liberalization although the debate on the matter is not final. See the concepts of "Building blocks" and "Stumbling blocks".
[2] According to the ECOWAS website, ETLS is the main tool for trade liberalization in the community.

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States have signed and implemented with their EU trading partners, agreements (Economic Partnership Agreements (EPAs)) for the freeing of trade between them. More recently, trade facilitation agreements (TFAs) are under negotiation and/or ratification in some countries in the community.

Thus, ECOWAS shows, through these various trade agreements, its full commitment to free trade or at least with a minimal level of tariff barriers. As a result, tariff levels have fallen sharply since the 1990s. In fact, at around 13% in the beginning of the 2000s, ECOWAS' weighted average tariff is about 9% in 2017 according to World Bank (WDI) data. It is worth noting that average tariffs are even lower in some ECOWAS countries such as Côte d'Ivoire and Senegal, reflecting the region's commitment towards trade liberalization. The main objective is to deepen intra-zone and global trade, increase FDI inflows to the region, reduce unemployment, economic growth and, in fine, economic performance for the countries in the region.

However, the results in terms of economic performance in ECOWAS, despite the implementation of trade policies, are somewhat disappointing or even not very good. In fact, in terms of foreign trade, although ECOWAS recorded a positive trade balance over the period 2000-2017, this balance is mainly due to two countries: Nigeria and Côte d'Ivoire. The report issued by the Central Bank of West African States (BCEAO) in 2016 highlighted that the trade performance observed in the West African Economic and Monetary Union (WAEMU)'s countries was due to the sharp increase in raw materials prices and quantities. The West African region (ECOWAS) is facing a crucial problem of unemployment. According to employment statistics provided by the Penn World Table (PWT 9), on average and over the period 2000-2017, the number of people in employment is about 7 million (6,690,447) out of an estimated population of 350 million inhabitants in 2017. Like the sub-Saharan African developing countries, which attract just the small share of foreign direct investment (FDI) to the world's developing countries, those coming into ECOWAS are mainly geared towards countries such as Nigeria and Côte d'Ivoire. In addition, although ECOWAS countries do not have a significant economic growth problem, it is nevertheless highly unstable and vulnerable to both internal and external shocks.

Some authors have focused on the issue of the relationship between trade liberalization and economic performance in regional blocs in West and Sub-Saharan Africa. They focused on the impact of trade openness on economic growth [7]; regional integration and trade dynamics [8], [9]. Nevertheless, to our knowledge, there is no study evaluating the impact of trade liberalization policies on the performance of the zone. However, given the socio-economic characteristics of ECOWAS countries, before addressing any study on the impact of these trade policies on performance, it is important to analyze the causal relationship that may exist between the two concepts. In other words, do the level of the economic performance variables analyzed in this study have any sensitivity to ECOWAS trade liberalization policies? This is the purpose of this paper, which therefore seeks to determine and analyze whether or not there is a causal relationship between the two phenomena.

The rest of the article is structured as follows. Section 2 presents the theoretical and empirical literature review in relation to the subject, the section 3 is devoted to the methodology adopted, which sets out the theoretical framework of Granger causality and the specification of the model. Section 4 is concerned with the presentation, analysis and interpretation of the results. Section 5 concludes and gives the main economic policy implications.

2 LITERATURE REVIEW

The relationship between foreign trade, trade openness or liberalization and economic performance has been, continues to be a subject of theoretical and empirical debate, and remains a central issue in several countries. Although theoretically, it would be inappropriate to conclude that there is a convergence in findings on this subject, the current trend is a belief in the ability of foreign trade with no barriers to generating economic performance. Since then, countries have been working under the aegis of the World Trade Organization (WTO) to set up and implement trade liberalization policies. The objective is to reduce tariff barriers and non-tariff barriers and then after, to achieve free trade without or with minimized restrictions. Empirically, the conclusions on the effects of trade liberalization policies on economic performance indicators do not converge and vary by country and by methodological approach and estimation techniques employed.

We will therefore examine the theoretical and empirical links between trade liberalization and key economic performance indicators, particularly foreign trade, economic growth, employment and foreign direct investment.

TRADE LIBERALIZATION AND FOREIGN TRADE

The earliest studies that tackled the empirical relationship between these two concepts in the early 1990s were those by [10]; [11]; [12], etc. For most of these studies, trade liberalization promotes an intensification of trade and thus has positive effects on economies. According to [13] and [14], trade liberalization has a positive and significant effect on export growth. In other words, the more a country liberalizes its trade with its partners, the more it increases its exports. [15] found similar results. Based on long-term time series for Pakistan, [16] concluded that trade liberalization stimulates both exports and imports and is therefore beneficial to Pakistan's trade balance. The author argues for further trade liberalization for that

country. Addressing Mercosur countries, [17] found arguments supporting the positive relationship between trade liberalization and trade growth. The authors use long time series and find strong long-term relationships between tariffs and imports only from the 20th century onwards. They conclude that the trade liberalization implemented by Latin American countries under the auspices of the WTO and Mercosur is key to the trade performance achieved. However, for other authors, trade liberalization is not a panacea for trade growth. Even more so, it can even be a source of a worsening trade balance, particularly in developing countries. For example, [18]; [19]; [13]; etc. have shown that trade liberalization has different effects on imports and exports, the former growing faster than the latter sometimes leading to transitional trade imbalances. There is little and sometimes very mixed evidence about the relationship between trade liberalization and trade [10], [14]. This asymmetric and diverse impact of trade liberalization on exports, imports and the trade balance is because studies differ in terms of periods, estimation techniques, databases, theoretical models and trade liberalization indicators [16]. For WAEMU countries, [8] analyzed the role of the WAEMU's Common External Tariff (CET) in the external performance of the WAEMU's countries. He concludes that WAEMU's countries are not benefiting from the positive effects of trade liberalization. Moreover, the trade liberalization measured by the CET has not contributed to the improvement of the trade balance in these countries. In a recent comparative work involving developed and developing countries, [20] found Presbich and Singer's conclusions whose interpretations are well synthetized by [21]. According to them, while trade liberalization is beneficial for developed economies by increasing their specialization, this is not the case for developing economies. Trade liberalization has led developing economies to impoverishing specializations that do not promote growth. [22], in an African Development Bank (AfDB) study covering 28 African countries, pointed out that even if trade liberalization leads to an increase in export volumes, import volumes grow more rapidly, leading to a deterioration in the trade balance.

TRADE LIBERALIZATION AND ECONOMIC GROWTH

The conclusions regarding the empirical relationship between trade liberalization and economic growth can be categorized into two main groups. For the first category, the authors found a positive and significant relationship between the two concepts. For example, in 1978, Balassa had already shown, through his research on 11 developing countries over the period 1960-1973, that exports have a positive impact on the economy. The same conclusion can be drawn from [23] that, the increasing growth of exports leads to an increase in the growth rate. According to [24], the positive relationship between trade policies and economic growth is based on three assumptions: (i) positive relationship between export growth, total factor productivity growth and market size growth, (ii) the reduction of costs resulting from competitive pressures related to exports and (iii) the easing of restrictions on the exchange rate regime and the wide variety and availability of non-substitutable import goods, including inputs, semi-finished products and capital. In [25]'s view, openness to international trade as well as other factors such as the devaluation of the real exchange rate, exchange rate stability could contribute to an improvement in economic performance in several countries. Investment is the channel through which the opening-up to international trade affects positively on economic growth. The results by [26] indicate that there is a positive relationship between openness and economic growth. The positive impact on trade openness on growth was also confirmed by [27], [28]. According to [29], trade liberalization has led to short-term and long-term growth. For the latter, on the contrary, trade liberalization does not generate economic growth. [30] concluded that there is a lack of a robust relationship between openness and economic growth. In their paper, [31] found that liberalized economies have not experienced as much as a proportional increase in their exports relative to their imports. This leads [32] to conclude that trade liberalization in developing countries apparently leads to a deterioration in the trade account. Studies on some Asian countries have shown that there is no long-term relationship between trade liberalization and growth [33]. According to [34], although trade liberalization is a key variable for long-term growth, its correlation with growth is indirect. In their research on 21 African countries, [35] found little evidence to support the hypothesis of strong trade-dependent growth. [36] found similar results when investigating trade liberalization efforts in Kenya, Tanzania and Uganda.

TRADE LIBERALIZATION AND JOBS

Empirically, [37] carried out a study on trade and unemployment in twenty (20) OECD countries. They concluded that greater trade openness would lead to lower unemployment rates. If the results seem more or less homogeneous with developed countries, the reality is not straightforward with developing countries. On the other hand, [38] carried out a Granger non-causality analysis between trade liberalization and several other variables, including employment in Malaysia. Their findings indicate that trade liberalization can increase the overall productivity of differentiated sectors, increase the efficiency of economic performance and also increase employment opportunities for both skilled and unskilled labor. [39] examined the empirical relationship between trade liberalization and the national unemployment rate in Nigeria over the period 1970-2010. Their findings reveal that, while total production and per capita income improve employment levels, trade liberalization policies lead to an increase in long-term unemployment. [40], on their side, highlighted the relationship between unemployment and trade reforms in India. They found no evidence between the decline in unemployment and trade policies. In addition, the

authors concluded that the decreasing level of unemployment in urban areas is due to trade liberalization in states with labor market flexibility; and that, as a result, employment opportunities in those states are increasing. In the case of Bangladesh, [41] applied a VECM (Vector Error Correction Model) to determine the relationship between trade openness and the level of employment. Their conclusion is similar to that of [39]. For them, trade liberalization merely leads to an increase in the unemployment rate in Bangladesh. [42] analyzed the relationship between the evolution of the trade balance, as a result of trade liberalization policies, and the national unemployment rate in Jordan over the period 2000-2012. He concluded that there is no long-term relationship between the two phenomena.

TRADE LIBERALIZATION AND FOREIGN DIRECT INVESTMENT (FDI)

Several authors have examined the issue of the main determinants of foreign direct investment (FDI) flows to regional blocs, particularly in the early 2000s.

[43] found in his study of 71 sub-Saharan African and emerging non-ASS countries over the period 1988-1997 that trade openness favors an increase in inward FDI flows to sub-Saharan African countries. Similarly, [44] concluded that, in addition to stimulating FDI inflows for 16 Asian countries, bilateral trade agreements attract more FDI than standard trade liberalization. In reviewing the cases of 23 developing countries, [45] concluded that the inflow of FDI is not increasing in countries with restrictive trade and investment regimes. For [46], the positive impact of trade liberalization on FDI depends on whether the country is developed, emerging or developing. The effect is generally positive for the former and second groups of countries, but for the latter groups of countries, the effect is ambiguous. In the case of India, trade liberalization has had a positive impact on the increase in FDI according to [47]'s findings obtained from their research on 78 Indian companies. Their findings are similar to those found by [48] in their research involving 54 countries in Latin America, Africa and Asia over the period 1990-2000. However, the authors note that the effect was greater for smaller economies than for emerging economies. For West African countries, [49] have determined the main drivers of FDI inflows to ECOWAS. Based on a dynamic panel estimated with the Generalized Moments Method (GMM), they concluded that the attractiveness of the region to FDI depends on several factors, including the opening-up of the economy to the world, which have a positive and significant influence on FDI flows. In fact, according to the findings of [50], the key factors in ECOWAS' attractiveness to FDI are financial development, governance and market size. Therefore, the empirical relationship of the impact of trade liberalization on FDI could therefore be dependent on the methodology and estimation techniques employed. By conducting a dynamic analysis of the determinants of FDI in ECOWAS with methodology that is more robust and estimation techniques[3], [51] found a conclusion almost similar to that of [50]. Thus, in ECOWAS, there is little evidence that trade liberalization causes the inflow of FDI. More likely, [52] also investigated the factors affecting FDI in the countries of the West African Economic and Monetary Union (WAEMU). The author finds the traditional results found. In other words, trade openness, public investment rate, human capital are the main determinants for attracting FDI to the region. By focusing on Sub-Saharan Africa, [53] found that trade dynamics are one of the major factors affecting the inflows of FDI. The authors therefore suggest a reduction of transaction costs, an improvement in the predictability of economic policies on this subject, and therefore a trade liberalization to attract FDI to these countries. Similarly, [54] argue that, amongst several other factors that could lead to FDI inflows, trade liberalization is of prime importance for Sub-Saharan African countries. In their work on a range of emerging countries, [55] sought to verify the assertion that trade liberalization promotes increased foreign direct investment. According to their findings, they confirmed the hypothesis. In other words, both trade and investment regime liberalization have had positive and significant effects on the FDI inflow to the countries in question[4]. This is mainly due to the reduction in tariffs and the flexible investment regime towards foreigners. Moreover, among the factors explaining the FDI inflow to Iran during the period 1980-2006 includes the trade opening[56]. Thus, over this period, the trade policies implemented by this country benefited the country in that it experienced a significant increase in inward FDI.

In a nutshell, the empirical evidence on the relationship between trade liberalization and economic performance is not straightforward in their findings. These vary and depend on the authors, the methods and estimation techniques employed and on the level of development of the countries studied. However, while most of this work has analyzed the impact of liberalization on economic performance variables, which can be positive, negative or neutral depending on the case, there is a research gap relating to the causal relationships between the two phenomena. This is even more visible when one focuses on developing countries in sub-Saharan Africa, particularly those in West Africa.

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[3] In this review article, the authors employed a dynamic panel with the Least Square Estimator with Bias-Corrected Binary Variables (LSDVC)
[4] In Shah and Khan's (2016) paper, these emerging countries include Brazil, China, India, Mexico, Russia and Turkey.

3 METHODOLOGY

3.1 THEORETICAL FRAMEWORK

On the theoretical level, a good understanding of economic phenomena requires a good knowledge of the causal relationships that may exist between them. Thus, as [57] pointed out, it is very crucial to know the meaning of causality, beyond highlighting the relationship between economic variables.

The most popular causality test is Granger causality test. Causality was introduced into the economic analysis by two authors, Weiner in 1956 and Granger in 1969. This notion relies essentially on two principles:

- The principle of anteriority: the cause precedes the effect or it is contemporary with it;
- The causal distribution contains information on the effect that is not contained in any other distribution in the sense of the conditional distribution.

According to Granger (1969), the variable Y_{2t} is the cause of Y_{1t} if the predictability of Y_{1t} is improved when information about Y_{2t} is introduced into the analysis. In other words, Y_t causes X_t implies that it is preferable to predict X_t based on knowing Y_t. The non-availability of information related to Y_t is a source of bias that can affect the prediction of X_t. Empirically, to test the X_t hypothesis "Granger cause" Y_t, the variable Y_t is regressed on the lagged values of the variable Y_t and on the values of the variable X_t. The procedure remains the same for the Y_t hypothesis "Granger cause" X_t. However, the order of the variables will have to be taken into account. Based on the existing empirical literature discussed in the previous section and in accordance with the purpose hereof, the bivariate model could be presented as follows:

$$Economic\ performance = f(Trade\ liberalization) \qquad (1)$$

More specifically, in the mathematical expression, it consists of four (04) equations to estimate, namely:

$$Pib\_pc_{it} = \beta_0 + \sum_{k=1}^{p} \beta_{1k} Pib\_pc_{it-k} + \sum_{k=1}^{p} \beta_{2k} Libcom_{it} + e_{1it}$$

$$Emp_{it} = \theta_0 + \sum_{k=1}^{p} \theta_{1k} Emp_{it-k} + \sum_{k=1}^{p} \theta_{2k} Libcom_{it} + e_{2it}$$

$$Ide_{it} = \rho_0 + \sum_{k=1}^{p} \rho_{1k} Ide_{it-k} + \sum_{k=1}^{p} \rho_{2k} Libcom_{it} + e_{3it}$$

$$Bc_{it} = \delta_0 + \sum_{k=1}^{p} \delta_{1k} Bc_{it-k} + \sum_{k=1}^{p} \delta_{2k} Libcom_{it} + e_{4it}$$

Where Pib_pc_{it} and Emp_{it} represent respectively the gross domestic product per capita (variable indicating economic growth) and the level of employment of the country *i* at date *t* ; Ide_{it} and Bc_{it} indicate the FDI inflows and the trade balance of the country *i* at date *t* ; finally, $Libcom_{it}$ represents average tariffs in ECOWAS (variable indicating trade liberalization).

3.2 DESCRIPTION OF VARIABLES AND DATA SOURCES

In this research, trade liberalization is approximated by the weighted average of the applied tariff rate. As for the economic performance variable, it is controversial. The choice of an appropriate indicator is a subject of debate in the economic literature. In general, economic performance can be appropriately approximated by GDP if the horizon is relatively short [58]. Following the discussion made earlier in the introduction and in line with the objectives of this research, five key variables of economic performance have been selected, mainly: (i) Economic growth: the sustainable increase in an economy's overall production. According the report by Stiglitz-Sen-Fitoussi (2009)'s Commission, the GDP per capita indicator is used to analyze a country's economic performance, (ii) Investment: In this paper, we refer to foreign direct investment (FDI). The motivation for this choice is that, in the sphere of the international economy, trade liberalization, by reducing trade transaction costs, promotes a sharp FDI inflow that is seeking efficiency [54]. In addition, this study only focuses on inward FDI flows because the economic performance of developing countries is more sensitive to inward FDI than to outward FDI. Moreover, in the case of developing countries, outward FDI is relatively negligible compared to inward FDI; (iii) Unemployment: the number of people engaged in paid work. Since trade liberalization is associated with an intensification of inward FDI flows, high delocalization of firms to more profitable regions, it contributes to an increase in the level of employment through the creation of enterprises; (iv) Commerce international: international trade has been taken into account through the trade balance, which is the difference between exports and imports. it captures both the trade dynamics and the state of a country's productive system and competitiveness as a result of trade liberalization. The table below provides a description of the variables and their sources. In addition, it presents the proxies employed for each variable.

Table 1.   Variable description and data sources

Variables	Indicators	Sources
Economic growth	PIB per capita	WDI, World Bank
Emploi	Number of people employed	PWT 9.0
Investisment	FDI, Inward	UNCTAD
Trade	Trade Balance	Perspective monde, World Bank

Source: Author

4   RESULTS

This section presents both the analysis procedures and the results of the various tests completed. The first test is the unit root test. The results of the IPS test (Im-Pesaran-Shui) are recorded in Table 2. Then, the Spearman rank test to test the correlation relationship between the variables. The results obtained for the ECOWAS region are summarized in Table 3. Finally, Table 4 summarizes the results after the Granger causality test.

4.1   RESULTS OF THE UNIT ROOT TESTS

Table 2.   Results of stationarity tests

IPS				
Variables	t-stat	p-value	Options	Decision
LIBCOM	-3,91736	0,0000	Trend and Intercept	I(0)
EMP	-6,56394	0,0000	Trend and Intercept	I(1)
PIB_PC	-5,32042	0.0000	Trend and Intercept	I(1)
IDE	-1,79558	0,0363	Trend and Intercept	I(0)
BC	-1,80636	0,0354	Trend and Intercept	I(0)

Source: Author

The above table presents the results of the stationarity tests performed on the variables. The test used here is the Im, Pesaran and Shui (IPS) test. The most appropriate model for each of the variables is the one presenting the trend and intercept. From the results of the test, it appears that the trade liberalization (libcom), foreign direct investment (FDI) and trade balance (BC) variables are stationary at level. This is because the probabilities (p-value) associated with the coefficients of these variables are lower than the 5% threshold. Therefore, these three variables are considered zero-order integrated (I(0)). On the contrary, the other variables representing respectively the employment level (emp) and the gross domestic product per capita (gdp_pc) are not stationary at level because their p-value is greater than 0.05. However, they become stationary at first difference. Their p-values become zero respectively, which implies that they are stationary. In this case, the variables emp and pib_pc are stationary in first difference and therefore integrated in order 1 or I(1). Before proceeding with the analysis of the causal relationship between trade liberalization and economic performance variables, it is important to analyze the correlation between the variables. To this end, the Spearman correlation rank test is employed. It is a non-parametric hypothesis test. Threshold is 5%. The table below synthesizes the correlation results between the selected variables.

4.2   CORRELATION RELATIONSHIP BETWEEN VARIABLES

Table 3.   Spearman correlation rank results

Variables	PIB_PC	EMP	IDE	BC
CEDEAO				
LIBCOM	-0,2779	-0,4454	-0,3619	0,2395
Significativité	0,0000	0,0000	0,0000	0,0005

Source: Author

The table above helps to analyze the correlations between the variables considered in this study. This is mainly the trade liberalization indicator variable and the economic performance variables considered, namely: GDP per capita, employment, FDI, and the trade balance. The above table presents the summary of the results, with details in the appendix. At ECOWAS level as a whole, the results reveal the existence of significant correlative relationships between trade liberalization and economic

performance. In fact, the significance associated with each correlation coefficient is lower than the 5% threshold. The value R= -0.2779 reveals a strong negative correlation relationship between trade liberalization and ECOWAS GDP per capita. The analysis remains similar for the relationship between trade liberalization and employment, FDI. The correlation relationship between trade liberalization and these variables is significant and negative. This means that trade liberalization and economic performance variables are moving in the opposite direction. An increase in the applied tariff would be associated with a decrease in these variables and vice versa. The correlation is average and positive for trade liberalization and the trade balance. This means that these two variables are moving in the same direction. An increase in the applied tariff would be followed by an increase in the balance of trade and vice versa. Since correlation does not necessarily mean causality, we test the Granger causal relationship for these different variables.

4.3 RESULT OF GRANGER CAUSALITY

Table 4. Results of the Granger causality between trade liberalization and economic performance variables

Null hypothesis	F-Statistic	Probability
H1: Trade liberalization does not cause GDP per capita	0.68709	0.5044
H2: Trade liberalization does not cause Employment	1.99743	0.1388
H3: Trade liberalization does not cause FDI inflows	2.46468	0.0878
H4: Trade liberalization does not cause the trade balance	0.21064	0.8103

Source: Author based on estimates

The table below summarizes the results of the Granger causality. In relation to the objective of the paper, four (04) null hypotheses have been tested. The first hypothesis tested is this: "trade liberalization does not cause GDP per capita". According to H1's results, the probability of the test is equal to 0.5044, i.e. greater than 5%. Therefore, we cannot reject the null hypothesis. The null hypothesis is therefore accepted and it is concluded that trade liberalization does not cause GDP per capita in ECOWAS' countries. In other words, previous information on trade liberalization does not improve the prediction of GDP per capita in ECOWAS countries. It is therefore impossible to predict any economic growth based on trade liberalization in these countries. The second hypothesis is formulated as follows: "trade liberalization does not cause employment". Similar to the previous result, the probability of the test is equal to 0.1388, higher than the threshold of 0.05. We then accept the null hypothesis and conclude that trade liberalization does not cause the employment in the countries of the West African community. Previous information on the level of trade liberalization is not a better predictor of employment in this region. In other words, the employment cannot be predicted based on information on tariff liberalization in this regional block. The results are slightly different with H3, according to which "Trade liberalization does not cause inward FDI". In fact, the probability associated with the Granger causality test is equal to 0.08788, i.e. greater than 5%. Thus, at the 5% threshold, we cannot reject the null hypothesis. We then accept the null hypothesis and conclude that trade liberalization does not cause inward FDI into ECOWAS. This means that a better forecast of FDI inflows to ECOWAS countries cannot be made based on previous information on trade liberalization. At the 5% threshold and all other things being equal, the volume of inward FDI cannot be predicted from trade liberalization. However, at the 10% threshold, the results of the causality show that trade liberalization causes the value of incoming FDI in this area. The last hypothesis is H4 "Trade liberalization does not cause the balance of trade balance". The result is similar to the previous ones. In fact, the probability of the test (0.8103) is greater than 5%. Thus, we accept the null hypothesis. Trade liberalization policies do not cause the balance of trade in ECOWAS. In other words, the current level of trade liberalization is not a good predictor of the trade balance in the ECOWAS region. In summary, trade liberalization policies measured by tariffs do not cause the economic performance of ECOWAS countries. In other words, there is no Granger causal relationship between trade liberalization and economic performance in these countries. This shows a disconnection between trade policies and real aspects of the domestic economies of these countries. In such a context where there is no causal relationship, it is unlikely that trade liberalization policies serve as a source of economic performance for ECOWAS countries. In addition, this non-causality could well explain the previous results found by [59]; [60]. For these authors, the countries of the Economic and Monetary Community of Central Africa (CEMAC) and ECOWAS do not benefit or do not enjoy the positive effects of trade liberalization policies.

5 CONCLUSION

The aim of this paper was to do a Causal Analysis on trade liberalization and economic performance in ECOWAS over the period 2000-2017. The weighted average tariff indicator was applied to capture trade liberalization, unlike the traditional trade ratio indicator. As for economic performance, it is approximated by GDP per capita as pointed out by the Stiglitz's Commission in 2009. In addition, the analysis of performance has also been extended to include key macroeconomic variables such as trade balance, employment and inward FDI. In this paper, the Granger causality has been used. The results show that, over the period

of the study, liberalization policies do not cause any economic performance variables in ECOWAS. In other words, ceteris paribus, one cannot expect a change in economic performance for ECOWAS countries based on trade liberalization. This result invites policy makers to reassess trade liberalization policies to better anchor them in the economic and social context of these countries in order to benefit from the positive effects of trade liberalization. This suggestion is of crucial importance for these countries at a time when liberalization at continental level, precisely the Continental Free Trade Area (ZLEC), is in the process of negotiation at a relatively advanced stage.

ACKNOWLEDGEMENT

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