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The Effects of Financial Development on the External Performance of WAEMU Countries: an ARDL Approach

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Abstract
This article assesses the effects of financial development on the external performance of WAEMU countries using an autoregressive model with staggered delays (ARDL) over the period 2000-2017. The model estimates reveal that in the long-term, financial development has a positive and significant effect on the external performance. In the short term, however, the results established a heterogeneity in the contribution of financial development to external performance across countries. This result would result from an imperfection in the financial system, which reduces the interactions between savings and investment and therefore the external performance of the Union economies. Thus, a substantial mobilization of credit from both banking and non-banking financial institutions and the development of the financial system constitute an economic policy of strengthening the role of financial development in the external performance of the Union.
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1. Introduction

Since the work of Goldsmith (1969) and McKinnon (1973), the existence of a link between financial development and the performance of the economy has occupied an important place in the economic debate. Indeed, in the theoretical and empirical literature, several works have analyzed the relationship between economic performance and financial development. At this level, the economic literature has followed two main directions. While some studies have found a positive correlation, others, on the other hand, have obtained mixed results and have therefore highlighted the fragility of this relationship, particularly in the short term. The authors who concluded that financial development is a fundamental determinant of economic performance believe that an efficient financial system can mobilize domestic savings and ensure effective risk diversification. They are mainly Walter Bagehot (1873), John Hicks (1969), Berthélemy and Varoudakis (1998); King and Levine (1993), Loayza and Beck (2000) and Levine (2005). For them, financial development is an important factor in economic performance since it facilitates the mobilizing of capital for « immense works ». Recently, Zahonogo (2017) has shown in the case of developing countries in Sub-Saharan Africa, that a poor financial system prevents the developing countries to take full advantage of technology transfer and liberalization trade and can therefore have a negative impact on economic growth.

Like other developing countries, the efficiency of banks remains average in the countries of the West African Economic and Monetary Union (UEMOA). To prove it, Igue (2013), by analyzing the technical efficiency of banks between 1990 and 2008 in the Union, situates its level between 0.552 in 1999 and 0.858 in 2003. With a deterioration in the scores for banking efficiency at times especially in 2004, 2006 and 2007. These figures indicate an inefficient financial system to meet the enormous financing needs of the Zone.

So, the weak financing of the economy by bank credit means that the analysis of the role of financial development has a particular interest especially in the analysis of the determinants of the external performance of the Union. In this regard, it should be emphasized that, as Dumont and Mesple-somps (2000) highlighted, the WAEMU countries have suffered for several decades from a lack of economic performance on a regional and international scale. This idea is explained by the fact that in the last decade, the market share of the WAEMU in terms of its export rate has not been very positive despite the improvement in the volume of its exports.

Indeed, the union exports have experienced sustained growth in recent years. They increased from 8,515.75 billion in 2000 to 14,876.99 billion in 2015, i.e. an average growth of 74.70% (BCEAO, 2016). Despite this increase in volume, it is important to emphasize that the Union's export rate has not experienced the same development. In this regard, the share of exports in the Union's GDP fell from 34.23% in 2000 to 33.43% in 2015, an average drop of 2.33%.

This article, based on various theoretical developments, aims to estimate the effect of financial development on the economic performance of the WAEMU. It attempts to show the existence of a heterogeneity over time in the contribution of financial development to the external performance of the Union. The rest of the work is structured in three points. First, we present a synthesis of the theoretical and empirical review. Second, we present the analysis methodology. Finally, we discuss the results, followed by a conclusion.

2. Review of literature

2.1. Theoretical developments

On a theoretical level, it is further recognized that there is a positive relationship between financial development and the performance of the economy. Most theoretical developments first try to justify the relevance of financial intermediation by relying on information asymmetries and then arrive at a positive consequence of the financial sphere on the real sphere.

Authors such as Schumpeter (1912), McKinnon and Shaw (1973) have presented the theoretical basis for the relationship between financial development and economic performance. The first author states that when the banking system works well, this stimulates technological innovation through the identification and financing of development projects with the best returns and long lifetimes. With regard to McKinnon and Shaw (1973), they highlighted a potential positive effect of financial development on the economy and they advocated the liberalization of the financial sector from the constraints caused by the various financial repression policies. However, the assumptions underlying this liberalization policy have been criticized for the fact that they could lead to a reduction in the supply of credit and consequently harm economic performance.

To justify this relationship, Levine (1996) identifies five arguments that can theoretically found the existence of a positive link between financial development and economic performance. For him, financial development would facilitate protection against risk and the sharing of it. It would allow optimal allocation of resources, ensure better control of managers and the company by shareholders, and facilitate the mobilization of domestic savings. Finally, a developed financial system could help improve the exchange of goods and services. The author next presents the four main channels of transmission from financial development to economic performance.

Thus, for Levine (2005), financial development ensures the pooling of savings through diversification and risk management; allows trade facilitation by reducing transaction costs; contributes to improving the distribution of capital through the production of ex ante information on investment opportunities and improves the propensity of investors to finance new projects.

2.2. Some empirical evidence

In the empirical literature, the analysis of the contribution of financial development on economic performance follows two directions. While some authors have reached an undeniable positive effect, the other in the opposite established by a mixed or negative relationship in developing countries and in the short term.

Indeed, Schumpeter (1935) had already insisted on the essential role played by the banks in the allocation of resources, which allows the entrepreneur to innovate by "diverting" means of production and improving his share of market with products that meet consumer tastes.

The empirical work on the subject began in the late 1960s when Goldsmith (1969) confirmed the existence of a positive correlation between the value of financial intermediary assets and the performance of the economy. This author conducted a study over a long period (1861-1963) of 35 industrialized and came to the conclusion that the development of these economies has been accompanied by an increase in the ratio of financial assets to the real capital and in terms of flows, the ratio of asset emissions to GDP. Because of the small size of its sample, other studies have examined the subject following this latter. Thus, this relationship experienced a revival in the 1990s, thanks to the work of authors like King and Levine (1993a, 1993b, 1993c) and Levine (1997). These authors have shown the importance of financial intermediaries in the accumulation of capital and the improvement of factor productivity and therefore economic performance. They have thus shown that a developed financial system makes it possible to ensure the mobilization of savings to finance development.

The work of King and Levine (1993) or empirical studies of Gerschenkron (1962) and Cameron (1972) on industrial development in the 19th century is partly based on the Schumpeterian analysis. The positive impact of financial development on growth also requires the implementation of increased shareholder control over managers and the company. The idea is that financial development can promote growth by reducing the cost of acquiring information both ex ante and ex post. For, in ex ante, the existence of an asset market can allow the investor to acquire information on the value of the company and its management before the purchase of securities. Ex post, it can be expensive for an external investor to verify the returns of an investment undertaken by the manager of the company.

Globally, if on a theoretical level the relationship between financial development and economic performance is not in doubt, it should however be noted that in the economic literature, three points are the subject of debate. First, there is controversy over the causal meaning of the relationship. Then, the literature presents discord on the structure of the financial system which favors more the performance of the economy. Finally, recent development cast doubt on the positive correlation between financial development and economic growth.

Although several empirical studies have established the existence of a positive or negative correlation following a unidirectional or bidirectional causality, the vast majority of studies which have focused on the subject maintain that the relationship is linear (Levine, Laoyza and Beck, 2000). However, other studies have questioned this linearity in favor of a non-linearity in the relationship between financial development and economic

performance (Anderson and Trap, 2003).

Among the works, which have questioned the positive contribution of financial development to economic performance, there is Anderson and Tarp (2003) who have shown that the positive link established by Levine et al., (2000), no longer holds true when their sample is limited to only south Sahara African countries and Latin America. They also pointed out that all the other work that has focused on a single country using time data does not clearly highlight the causality going from financial development to economic growth.

3. Econometric approach

3.1. Theoretical framework

In analyzing the determinants of economic growth, it is possible to consider that economic growth is a function of financial development. In this case, it is necessary to recognize an endogenous character to this relationship since in the classic basic model of growth, namely the Solow model, the long-term growth of the economy depends only on technical progress and the evolution of the active population. Consequently, the theoretical framework retained in this article is the theory of endogenous growth. To formalize as simply as possible the channels by which financial development can interact with external performance, we must write a model of endogenous growth.

Among the endogenous growth models used to formulate the interactions between factors, financial development and economic performance, there is the approach of Pagano (1993). This model presents the mechanisms by which financial development accelerates growth. Other work on this theme has been carried out and shows that competitive financial intermediation increases the long-term growth rate (Greenwood and Jovanovic, 1990; Bencivenga and Smith, 1991; Levine, 1991).

3.2. Empirical model

The empirical model that is used to estimate the effect of financial development on external performance is based on the structure of the model by Levine (2005). The choice of this model is guided by the fact that it considers financial development as a determining factor of economic performance. As Levine (2005) indicated, financial systems that grant more credit to private companies are more engaged in the quest for economic performance. This model is expressed as follow:

$$TOE_{it} = \beta_0 + \beta_1 DF_{it} + \beta_3 X_{it} + \mu_{it} \quad (1)$$

In the equation (1), TOE_{it} represents the country's trade openness rate i at the period t, DF_{it} the country's i financial development at the period t X_{it} is a vector of the control variables likely to influence external performance and μ_{it} the error term.

4. Data and definition of variables

The data used in this work are annual and exclusively from the World Bank (2020) and cover the period from 2000 to 201 7, i.e. 17 years. The choice of this period is essentially guided by the availability of data on both interest and exogenous variables. The dependent variable is external performance, measured by the ratio between exports and the GDP of different countries. Otherwise, external performance is measured by the export rate.

4.1. Dependent variable : economic performance (PEEC)

In this work, the variable that we are explaining is external performance. It generally reflects the capacity of the national economy to impose itself on the external market by improving its market share. This necessarily involves strengthening the quality of the products offered, the offer of competitive prices and also taking into account the adequacy between the products offered and the preferences of the consumers. The export rate is used to measure external performance of WAEMU because, according to the BCEAO (2013), the increase in the export rate reflects that countries have a performance gain outside.

4.2. Interest variable : financial development (DEFI)

It is important to emphasize that several indicators are used in the literature. These indicators can be grouped into two categories. First, there are indicators on the size and effectiveness of the activity of banks and secondly, there are indicators based on the functioning of financial market. Due to the low level of development of the financial market in developing countries in general, it is more advisable to use the first category. Like King and Levine (1993), credit to the private sector as a percentage of (GDP) is used as an indicator of financial development in this work. In addition to these variables, a set of control variables, frequently used in the analysis of economic performance, is included in the estimates.

4.3. Control variables

In the economic literature, several variables are likely to affect the external performance of the economy. The most used in performance analysis are:

GDP per capita (GDPH): This is a variable that reflects the level of economic development in the country. Its

growth is synonymous with the national economy ensuring an efficient sphere of production and marketing. The expected effect is positive.

Inflation (INLA): The effect of inflation is a controversial issue. Some studies claim that inflation has a positive impact on growth (Dornbusch et al., 1996), while other studies suggest that this effect is characterized by a non-linear relationship (Fischer, 1993; Kremer et al., 2009). The expected sign is ambiguous.

Foreign trade tax (IMCE): It represents all the taxes levied by the State on foreign trade. In general, taxation is made on imported products. Thus, its increase leads to a decrease in imports of Burkina Faso from the UEMOA zone since the products become more expensive. The expected effect is positive.

Public expenditure (DEPU): these represent all the expenditure undertaken by the State for the construction, maintenance and technical operation of public infrastructure. An increase in investment in public infrastructure contributes, through the combination of direct and indirect effects, to lowering the cost of production due to the fall in the cost of transport and energy and consequently to an improvement in the productivity of businesses and thus on economic performance in general. The expected theoretical sign is therefore positive.

4.4. Estimation method

The empirical methodology used in this work takes place in three stages and consists in determining the degree of integration of each of the variables. In the econometric literature, several statistical tests are used to determine the degree of integration of a variable. The tests that will be used in this study are the Augmented Dickey-Fuller tests (ADF), that of Phillips-Perron (PP) and the test of Kwiatkowski, Phillips, Schmidt and Shin (KPSS). Once the order of integration series is known, the next step is to review the possible presence of cointegration relationship at long term between the variables. This analysis will be done according to the cointegration test procedure of Pesaran et al. (2001) which is more effective than that of Johansen (1988) when the sample is small and the number of variables is high. The third step deals with the causality test between the variables of economic growth and the debt stock. We will apply the test procedure called non-sequential of Toda and Yamamoto (1995).

Since the number of individuals is lower than that of the period, the autoregressive staggered delay approach (ARDL) of Pesaran et al. (1999), which is the recent econometric approach applied to the panel, is applied in this case. The ARDL estimation with a lag is appropriate because it corrects in the same time, serial correlation and the problem of endogenous. Thus, considering that all the variables are integrated of order 1 so, the error term is an integrated process at level I (0) for everything and is independently distributed over *t*. We also assume a maximum unit order lag for each variable. Under these conditions, we can rewrite the equation as an ARDL distribution (p, q) as follows:

$$\Delta TOE_{it} = \phi_i TOE_{it-1} + \beta_i DF_{it-1} + \varphi'_{ij} X_{it-1} - \sum_{j=1}^{p-1} \lambda_{ij} \Delta TOE_{it-1} - \sum_{j=0}^{q-1} \delta_{ij} \Delta DF_{it-j} - \sum_{j=0}^{q-1} \gamma'_{ij} \Delta X_{it-j} + \varepsilon_{it} \quad (2)$$

In representation (2) ϕ_i is the coefficient of the lagged dependent variable. It is also called the restoring force or long-term adjustment coefficient and must be negative. ε_{it} are random disturbances, and are supposed to be distributed normally and independently through i and t with the average 0 and variance $\sigma_i^2 > 0$. It should be noted that one of the advantages of the ARDL models is that the short- and long-term relationships are estimated jointly. In addition, these models allow the presence of variables, which can be integrated in different orders, either I (0) or I (1) or co-integrated (Pesaran, Shin and Smith 1999).

When all of the conditions $\phi_i$are met, the long-term relationship can be written as follows:

$$TOE_{it} = \theta_{1i} DF_{it} + \theta'_{2i} X_{it} + \eta_{it} \quad (3)$$

In equation (3), $\theta_{1i} = {}^{\beta_i}/_{\phi_i}$ and $\theta'_{2i} = \left({}^{\varphi'_{ij}}/_{\phi_i}\right)'$

and represent respectively the long-term coefficient of financial development and that of the vector of control variables. η_{it} is the error term of the long-term relationship and must be stationary.

5. Main results and discussions

5.1. Description of the data used

Table 1 presents the description of the variables.

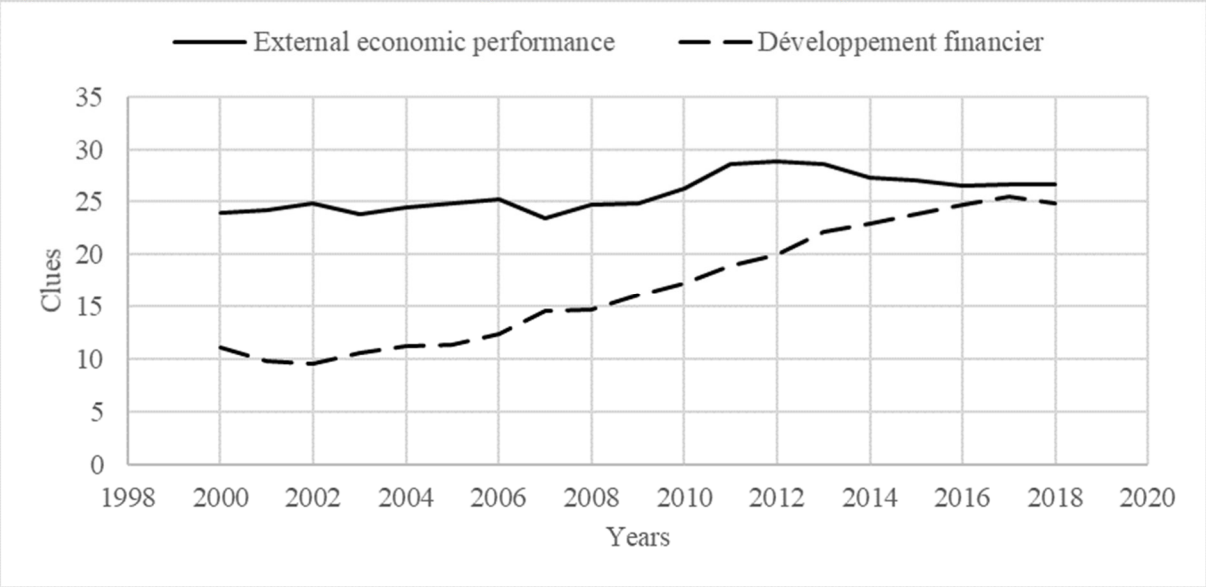
Table 1: descriptive analysis of the variables

Variables	Average	Standard deviation	Minimum	Maximum
External performance	25.83467	9.939091	8.710213	53.81996
Financial development	16.91162	8.213659	.4025806	41.15628
GDP per capita	760.6975	341.1919	322.7779	1692.545
Inflation	2.169102	2.64392	-3.502585	11.30511
Foreign trade tax	14.25714	3.840531	8.8	23.3
Public expenses	10.05631	3.121624	9.166115	18.16607

Source: Author's from World Bank data (2020).

Table 1 shows the descriptive statistics of the variables in our sample of the eight WAEMU countries that are used in our econometric estimates. It shows that the average external performance rate in the sample from 2000 to 2018 is 25.83% of GDP. During this period, the average of financial development is 16.91% of the GDP. The minimum of financial development (0.40%) is recorded in Guinea Bissau while the maximum (41.16%) comes from Togo, which indicates a greater efficiency of its financial system. The average per capita GDP is $ 760.70 with high variability. Indeed, the minimum (322.78 dollars) is held by Niger while the maximum (1692.55 dollars) is recorded in Côte d'Ivoire. In addition, as shown in Table 1, the average inflation rate is 2.17% with a large difference between countries. Guinea Bissau recorded the low inflation rate (-3.5%) and Niger the highest level over the period (11.31%). The average tax on foreign trade in the Union was 14.26% of GDP over the period 2000-2018. The lowest tax rate (8.8%) is applied in Côte d'Ivoire and the highest (23.3%) is applied in Guinea Bissau.

Figure 1: simultaneous evolution of external performance and financial development indices



Source: Author's from World Bank data (2020).

Figure 1 illustrates the trends in external performance and financial development for WAEMU countries over the 2000-2018 period. For the total sample, we observe a co-movement between the two series at least up to a certain threshold of financial development. There is a general growing trend in financial development and external performance. A closer look reveals that from 2011 onwards, growth in financial development was followed by a slight continuous decline in external performance. This observation suggests the possibility of the existence of a financial development threshold from which the growth of credit offered to the private sector compresses the external performance of the economy.

5.2. Baseline test results

Before presenting the results of the effect of financial development on the external performance of the WAEMU, we present the results of three important tests for the panel time series: series dependence tests, unit root tests and cointegration tests. For the transverse dependence test of each variable, we use the Pesaran test (2004). In order to choose the first- or second-generation stationarity tests, we perform the Breusch -Pagan (1980) and Pesaran (2004) independence test. The results are summarized in Table 2:

Table 2: results of testing dependence of Pesaran (2004)

Tests	Statistics	P-values
Breusch -Pagan LM	60.93	0.0000
Pesaran CD	-3 .645	0.0099

Source: Authors from World Bank data (2020).

The LM test of Breusch -Pagan (1980) on the model residues indicates the presence of inter-individual autocorrelation at the threshold of 1%. Pesaran's inter-individual dependence test (2004) also confirms the presence of autocorrelation at the threshold of 1%. This brings us to test the stationarity of the series using the second-generation test of Pesaran (2007). According to Hurlin and Mignon (2005), given the hypothesis of inter-individual independence in the first-generation tests, the possible correlations between individuals constitute nuisance parameters. The incorrect application of first-generation tests in a context of inter-individual dependencies leads to significant distortions and very low-test powers (Banerjee et al., 2000; Strauss and Yigit, 2003).

Table 3 presents the results of the pesaran test (2007. The hypothesis assumes that all the series are not stationary versus the alternative hypothesis according to which all the series are stationary at level. When the

probability is greater than 5%, the variable concerned is not stationary otherwise it is stationary Table 3 presents the results of the Pesaran test (2007).

Table 3: Result of the Pesaran unit root test (2007)

Variables	CPIS *	Differentiations Levels	Decisions
PEEC	-3.906	1	Stationary
DEFI	-4,290	1	Stationary
GDPH	-4.032	1	Stationary
INLA	-4.822	0	Stationary
IMCE	-3.727	1	Stationary
DEPU	-3.620	1	Stationary

* the theoretical value is -2.88 to 5% and - 3.15 to 1%

Source: Author s from World Bank data (2020).

The results of the Pesaran test (2007) reveal that inflation is stationary in level while all the other variables are in primary difference. This brings us to consider the existence of a long-term relationship through the cointegration test.

Due to the presence of inter-dependence, it is recommended to run the cointegration tests of second generation Westerlund (2007) and Persyn and Westerlund (2008) that test the absence of cointegration in determining the existence of the term correction error for individuals in the panel or the panel as a whole (Table 4).

Table 4: results of the cointegration test.

Statistics	Values	Z-values	P-values
Gt	-2.308	-1,671	0.047
Ga	-6,712	0.223	0.588
Pt	-6.481	-2,400	0.008
Pa	-8.501	-2.721	0.003

Source: Author s from World Bank data (2020).

In the Table 4, what matters most is the result of statistics and Pt Pa. The values of their P-values are less than 5%, then the null hypothesis of no cointegration is rejected. This allows us to conclude that all the series considered in the panel are cointegrated. Now, it is possible to envisage the existence of a long-term relationship between economic performance and financial development.

5.3. Results of econometric estimating and discussions

Table 5 presents the results of the panel ARDL model estimation according to the three Pooled Mean Group (PMG), Mean Group (MG), and Dynamic fixed effect (DFE) estimators. For estimates, the error correction term is negative, significant and greater than -1. This result confirms the presence of a long-term relationship between external performance and the explanatory variables used.

The results of Hausman's test do not reject the null hypothesis of long-term homogeneity and short-term heterogeneity of repressors. As a result, the PMG estimator is in this case more efficient than the MG and DFE estimators. Consequently, we will only interpret the long-term results for the entire panel from the PMG estimate. The resulting error correction coefficient (-2.24) is negative and significant at the 1% level. This shows the existence of an error correction mechanism allowing to tend towards long-term equilibrium. A shock that would occur to external performance over the course of a year is fully absorbed after 19.11 years.

Table 5: financial development and external performance in the WAEMU (2000 to 2018).

Variables	PMG	MG	DFE
Error correction	- 2.240504 *** (0. 0 5232401)	-.9234741 *** (0.0891391)	-.854178 *** (0. 0 2549113)
DEFI	0.0160 *** (0.00197)	0.0141 ** (0.00695)	0.00764 (0.00494)
GDPH	0.886 *** (0.214)	1.126 * (0.667)	0.648 *** (0.199)
INLA	-0.0143 *** (0.00460)	-0.00542 (0.00656)	-0.0122 ** (0.00602)
IMCE	-0.0509 *** (0.0161)	-0.00737 (0.0151)	-0.0302 * (0.0178)
DEPU	0.0138 ** (0.00598)	-0.00539 * (0.00303)	-0.00639 (0.00688)
Constant	-0.0380 *** (0.0135)	1.587 *** (0.452)	0.245 *** (0.0671)
Hausman test	78.72 [(a)] (0.000)		0.01 [(b)] (1,000)
Observations	104	104	104

Note: *, **, *** indicate respectively a significance at 10%, 5% and 1 % the values in parenthesis are the standard deviations. (a) the PMG estimate is more efficient than the MG estimate under the null hypothesis, (b) the PMG estimate is more efficient than the DFE estimate under the null hypothesis

Source: Author based on the World Bank data (2020).

The results in Table 5 shows that GDP per capita and public spending on infrastructure positively and significantly affect the external performance of the WAEMU economy. Inflation and foreign trade tax, on the other hand, contribute negatively to the Union's external performance.

In accordance with theoretical predictions, financial development positively and significantly influences long-term external performance at the 1% threshold. A 1% improvement in financial development is accompanied by a 0.016% increase in external performance. This result is consistent with that found by Adusei (2,013) for the case of Ghana and that Ibrahim and Alagidede (2018) when they show on a panel of 29 countries in Sub-Sahara Africa (SSA) between 1980 and 2014 with threshold effect estimation techniques that financial development positively influences economic growth. However, it is contrary to that found by Adeniyi et al. (2015) for the case of Nigeria between 1960 and 2010 when they conclude that financial development has a negative influence on economic growth.

The analysis of the short-term coefficients listed in Table 6.

Table 6: financial development and external performance of WAEMU countries (short-term coefficient, 2000-2018). Dependent variable : log export rate.

VARIABLES	EC	DEFI	*GDPH*	INLA	IMCE	DEPU	Constant
Benin	-0.009**	0.024**	0.003***	-0.001**	0.0022	-0.002	-0.008
	(0.008)	(0.02)	(0.001)	(0.0005)	(0.002)	(0.002)	(0.019)
Burkina Faso	-0.117***	0.199***	0.001**	-0.0005	-0.016**	-0.0076*	-0.146
	(0.038)	(0.068)	(0.001)	(0.001)	(0.007)	(0.004)	(0.179)
Cote d'Ivoire	-0.038**	0.144***	0.0004**	-0.001	0.006*	-0.003	-0.032
	(0.015)	(0.028)	(0.001)	(0.001)	(0.003)	(0.003)	(0.059)
Guinée Bissau	-0.013**	-0.04*	0.0002*	0.0005	-0.0045	0.005	0.0113
	(0.009)	(0.036)	(0.0007)	(0.0011)	(0.0028)	(0.004)	(0.0238)
Mali	-0.0204**	0.0544**	0.003***	-0.002***	0.0024	-0.002	-0.057*
	(0.008)	(0.025)	(0.0007) *	(0.001)	(0.004)	(0.0056)	(0.033)
Niger	-0.018**	-0.163***	-0.004**	-0.0006	-0.003	-0.009	-0.034
	(0.009)	(0.048)	(0.002)	(0.001)	(0.004)	(0.009)	(0.029)
Sénégal	-0.071**	0.504***	0.006***	0.0002	0.006*	-0.023**	-0.124
	(0.031)	(0.112)	(0.002)	(0.002)	(0.0036)	(0.012)	(0.103)
Togo	-0.0740***	0.0804**	0.001**	-0.001*	0.0345***	0.003	0.056
	(0.021)	(0.043)	(0.0007)	(0.001)	(0.008)	(0.003)	(0.121)

*, **, *** indicates a significance at 10%, 5% and 1% and the values in parentheses are standard deviations.

Source: Author based on the World Bank data (2020).

The short-term results show a heterogeneity in the effect of financial development on the external

performance of different countries. For all the countries, the recall force is greater than -1, this indicates a situation of convergence towards the stable state of short-term performance. No country in this panel has a restoring force of less than -1, in which case growth would be explosive following a shock.

Unlike long-term results, short-term financial development affects countries external performance differently. While in some countries the influence is positive and significant (Benin Burkina Faso, Ivory Coast, Mali Senegal and Togo), in other countries (Guinea Bissau and Niger), the financial development finance affects negatively the external performance in the short term.

This heterogeneity may seem surprising since the development of the financial system would contribute to increasing the supply of credit in the economy. However, in developing countries in general and in the WAEMU space in particular, these results are explained in particular by the imperfections of the financial markets. This imperfection reduces the interactions between savings and investment and, by consequence, the external performance of the Union's economies. This result is similar to that of Ang and McKibbin (2007). For these authors, the large part of savings is not necessarily directed towards productive sectors contributing strongly to economic growth. In WAEMU, for example, 64% of credit goes to the service sector, 33% goes to the industrial sector and only 3% to the agricultural sector BCEAO (2016). In the same trajectory, our result is similar to that of BOAD (2012) for which, the weak capital of banks and the structure of resources, essentially in the short-term, significantly prevents the possibility of granting credits to ensure a performance of the economy in the WAEMU zone.

Also, this heterogeneity could be explained by the importance of financial exclusion in developing countries, forcing sectors with technical progress and economic growth to remain without funding. Hao and Hunter (1997) by finding similar results of 28 provinces of China between 1985 and 1999 attributed this negative sign to the inefficiency in the allocation of credit. Halkos and Trigoni (2010) and Xu (2000) support this point of view as that financial development could negatively influence economic growth by reducing the credit to domestic companies.

Also, the negative influence at the short-term and positive at long-term of financial development confirms previous findings of Ibrahim and Alagidede (2018showing that, there is a nonlinear relationship between financial development and economic growth in SSA. These results confirm the long-term effects. They make it possible to conclude as to the need to support the development process with financial innovations, which provide the financial system with the means for its efficiency and for financing companies or sectors with high potential for technical progress, guaranteeing prospects for economic growth long term.

6. Conclusion

The aim of this work was to assess the effects of financial development on the external performance of the WAEMU over the 2000-2018 period. After mobilizing various theoretical developments, the results show that financial development positively affects the external performance of the Union. However, this result must be nuanced over time.

Indeed, in the long term, the positive link is indisputable in all countries. In the short term, on the other hand, a heterogeneity of the relationship emerged between countries. In some countries the positive link is maintained while in others, it becomes negative. Thus, it is recognized that the imperfections of the financial markets could be one of the reasons which could explain this heterogeneity.

In any event, these conclusions confirm the hypothesis that a more substantial mobilization of credit granted by banking and non-bank financial institutions are all functions fulfilled by financial development in economic performance.

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