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Bank competition and maturity of loans in WAEMU countries

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***Abstract*---**This study aims to empirically evaluate the effect of bank competition on the maturity of bank credit in the countries of the West African Economic and Monetary Union (WAEMU). This objective was achieved by using a relatively recent econometric method, namely FMOLS, on a sample of 7 countries in the union over the period 1996-2021. The results of the estimation reveal that in the long term, in the presence of strong competition, banks will favour their relations with their customers by offering long-term loans. On the other hand, when competition is weak, banks will opt for short-term credit. These results, therefore, validate the predictions of the market power hypothesis.

***Keywords*---**Banking competition, loan maturity, FMOLS.
JEL classification: E5, G21, G28, G32.

1. Introduction

The problem of shortening loan maturities is recurrent in developing countries (Demirgüç-Kunt and Maksimovic, 1999). In Africa, 54% of loans are for less than one year, 36% for 1 to 5 years and 10% for more than 5 years (AfDB, 2011). WAEMU countries are no exception to tradition. Most of the credit distributed is short-term and accounts for the majority of credit to the private sector - 70% on average, ranging from 60% in Togo and Senegal to almost 90% in Guinea-Bissau (Kpodar and Gbenyo, 2010). The scarcity of long-term credit is recognised as an obstacle to economic growth in these countries (Caprio and Demirgüç-Kunt, 1997; Kpodar and Gbenyo, 2010).

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In Flannery's model (1986), the choice of debt maturity is a signal of borrower quality. In the absence of reliable information, banks react by shortening bank loan contracts. From then on, shortening debt becomes a strategic tool for banks insofar as it allows them to monitor the company's performance more frequently (Diamond, 1991; Rajan, 1992). Through this act, the bank can modify the terms of the contract. On the other hand, some authors emphasise that it is long-term debt that could facilitate the monitoring of borrowers. By facilitating the establishment of banking relationships, long-term debt allows for the intertemporal smoothing of banking conditions (Myers, 1988). However, such conditions can only be met in concentrated banking markets (Boot, 2000). In such markets, a company can enter into an exclusive relationship with a bank, which can help to reduce risk through greater transparency of information (Petersen and Rajan, 1995). This will increase the maturity of loans (Hernandez-Canovas and Koeter-Kant, 2011; Kaźmierczyk and Aptacy, 2016). This view is qualified by proponents of the market power hypothesis. According to Boot and Thakor (2000), in a more competitive environment, banks focus more on banking relationships. This can lengthen the loan contract (Liu et al., 2018).

Recent decades have been marked by profound changes in the world banking system. These regulatory innovations are no strangers to the competition that prevails in the different banking systems (Jayaratne and Strahan, 1996, 1998; Scialom, 2013, p.31). Following the example of these countries, the banking systems of the countries of the West African Economic and Monetary Union (WAEMU) have been deregulated, considerably affecting rivalry in the banking market (Report of the Banking Commission of the BCEAO, 2013; Léon, 2016; Jacolin and Noah, 2017). Given that the banking system is vital for economic activity, when the structure of the banking market changes, particularly in terms of competition, the way the economy is financed may be affected. What, then, are the implications of this change in the banking system for the structuring of loans?

Thus, this study aims to empirically assess the effect of competition in the banking market on the maturity of bank credit in WAEMU countries.
Although there is an abundant literature on the determinants of the maturity of loans granted to SMEs (Hernandez-Canovas and KoeterKant, 2008; González and González, 2008; González, 2017; Rahman et al., 2017), few studies specifically address the link between market structure and credit maturity. To the best of our knowledge, the only study that addresses the issue is that of Liu et al. (2018). Moreover, the studies focus on survey data without analysing banks' behaviour in structuring loans. Rather than focusing on the demand side, this study focuses on the supply side. The study thus contributes to the literature by attempting to fill this gap. The rest of the article is organised as follows. Section 2 deals with the literature review; section 3 is devoted to the methodology; section 4 looks at the interpretation of the results; and section 5 concludes.

2- Literature Review

The theory of financial intermediation emphasises that asymmetric information plays an important role in the negotiation of debt contracts between the bank and the firm. The reaction of banks to imperfect market information is to reduce the

maturity of their outstanding loans, since shorter loans allow them to monitor the firm's performance more frequently and, if necessary, to modify the terms of the contracts before losses accumulate (Diamond, 1991; Rajan, 1992). To make banks more willing to improve the terms of a loan contract, for example, by extending the loan term or increasing the credit available, the firm can improve the flow of information to the bank by strengthening its relationship with the bank (Petersen and Rajan, 1994). When the structure of the banking market changes, the banks' production of information may be affected (Boot and Thakor, 1993), which could modify the loan contract (Petersen and Rajan, 1995; Boot and Thakor, 2000).

There are two opposing hypotheses on the effects of the structure of the banking market and the maturity of credit. According to the information hypothesis, bank competition is negatively associated with access to credit because it reduces banks' incentives to invest in information and relationship lending. This hypothesis suggests that tougher bank competition makes it difficult for banks to internalise the benefit of helping opaque firms, leading to increased financial constraints. In contrast, the market power hypothesis predicts a positive relationship between bank competition and financing, since increased bank competition strengthens banks' market power. In a more competitive environment, banks focus more on banking relationships, which can lengthen the loan contract.

Hernandez-Canovas and KoeterKant (2008) empirically examined the relationship between bank debt maturity and relationship lending using a sample of 3366 SMEs from 19 European countries. Their results indicate that strengthening relationships between banks and financial institutions increases the maturity of bank loans. In addition, they show that lending relationships increase the probability of SMEs taking on long-term debt in countries where competition in the banking sector is less intense. In the same vein, González and González (2008) demonstrate that bank concentration has a positive influence on debt maturity for a sample of listed companies in 39 countries. The existence of a positive relationship between bank concentration and credit is consistent with the idea that relationship banking is useful for reducing information asymmetries. These results are confirmed by recent work (González, 2017; Rahman et al., 2017).

These results are nuanced by the contribution of Liu et al (2018). Indeed, the authors conduct a study that investigates whether bank concentration affects firms' debt maturity and how firm size and state ownership by firms affect the effect of bank concentration in China over the period 1998-2013. The results indicate that bank concentration reduces the maturity of corporate debt. It is also found that the debt maturity of SOEs decreased less than that of other firms in regions with higher bank concentration. Although this literature addresses issues of loan maturity, it does not focus on bank behaviour.

3-Methodology

3.1. Econometric specification

The study of the effect of bank competition on banks' lending maturity seems far from reaching unanimous results (Gonzales and Gonzalez, 2008; González, 2017; Liu et al., 2018). In the case of UEMOA countries, we follow González, 2017 and Liu et al. (2018). The econometric specification is given by:

$$Mat_{it} = \phi_1 Lerner_{it} + \phi_2 Risk_{it} + \phi_3 Debrate_{it} + \phi_4 Size_{it} + \phi_4 Roa_{it} + \phi_5 Gdp_{it} + \phi_6 Inf_{it} + \alpha_i + \varepsilon_{it} \quad (1)$$

i=1,2,…..N ; t=1,2,….T

Where Mat denotes the maturity of the credit provided by the banks. This variable takes three forms: short-term (CCT), medium-term (CMT) and long-term (CLT). Competition is materialised by the Lerner index proposed by Demirgüç-Kunt and Martínez-Pería (2010); Risk denotes bank risk, Txdeb, the lending rate, Size, the size of banks' assets; ROA, the return on assets; GDP, the GDP growth rate; Infl, the inflation rate.

Methodologically, the work is carried out using a dynamic panel GMM. Unlike this work, we verify the long-run dynamics that exist between competition and credit maturity. This choice is based on the fact that, according to Hernandez-Canovas and KoeterKant (2008), the strengthening of relations between banks and financial institutions lengthens the duration of bank loans. In the absence of an analysis of banking relationships, we analyse the long-term relationship between bank competition and credit maturity. Using the Modified Least Squares technique. Initially proposed by Phillips and Hansen (1990) and then extended by Pedroni (1996 and 1999), the FMOLS method offers the possibility of taking into account the second-order endogeneity of the regressors (caused by the correlation between the cointegrating residuals and the innovations of the first-order integrated series present in the cointegrating relationship) and the autocorrelation and heteroscedasticity properties of the residuals. One of the advantages of this model is that it offers more robust results than Ordinary Least Squares (OLS) when the sample size is relatively small. If the conditions for cointegration are met, equation 1 can be written as follows:

$$Mat_{it} = \alpha_i + \beta X_{it} + \mu_{it}$$

(2)

$$X_{it} = X_{it-1} + \varepsilon_{it}$$

Where X is the vector of explanatory variables. The coefficients are estimated from the following relationship:

$$\hat{\beta}_{GFM} = N^{-1} \sum_{i=1}^{N} \left(\sum_{t=1}^{T} (x_{it} - \bar{x}_i)^2 \right)^{-1} \times \left(\sum_{i=1}^{T} (x_{it} - \bar{x}_i) Mat_{it}^{*} - T\hat{\gamma}_i \right)$$

(3)

Où

$Mat_{it}^{*} = (Mat_{it} - \overline{Mat}_{i}) - \frac{\hat{\Omega}_{21i}}{\hat{\Omega}_{22i}} \Delta x_{it}$, the equilibrium value of competition, $\hat{\Omega}$ is the estimated value of the variance-covariance matrix of the coefficients ;

$$\hat{\gamma}_{i} \equiv \hat{\Gamma}_{21i} + \hat{\Omega}_{21i}^{0} - \frac{\hat{\Omega}_{21i}}{\hat{\Omega}_{22i}} (\hat{\Gamma}_{22i} + \Omega^{0}{}_{22i})$$

The author calculates a student's t, which is given by :

$$t_{\hat{\beta}_{GFM}^{*}} = N^{-1/2} \sum_{i=1}^{N} t_{\hat{\beta}_{FM_i}^{*}}$$

(4)

Où

$$t_{\hat{\beta}_{FM_i}^{*}} = \left(\hat{\beta}_{FM_i}^{*} - \beta_0 \right) \left(\hat{\Omega}_{11i}^{-1} \sum_{i=1}^{T} (x_{it} - \bar{x}_i \right)^{1/2}$$

After the specification, the next step is to describe the data used, its sources, the definition of the variables and how they are calculated.

3.2. Definition of variables

The variable we seek to explain here is the maturity of bank loans. This variable takes three forms: short-term (CCT), medium-term (CMT) and long-term (CLT). It is obtained by dividing short-term, medium-term and long-term credit by total credit, as in the work of DemirgüçKunt and Maksimovic (1999) and González (2017).

Our main variable that could influence the maturity of bank loans is bank competition. It is measured by Lerner (1934)[1]. It is formulated as follows:

$$Lerner_{it} = \frac{P_{it} - Cm_{it}}{P_{it}}$$

(5) with p the price and Cm the marginal cost for bank i in year t. In our case, p is the asset price. The cost function is estimated by a translog function as follows:

$$\ln(C_{it}) = \varphi_{0i} + \varphi_1 \ln(Q_{it}) + \frac{1}{2}\varphi_2 (\ln(Q_{it}))^2 + \sum_{j=1}^{3} \delta_j \ln(w_{jit}) + \frac{1}{2}\sum_{j=1}^{3} \phi_j \ln(Q_{it}) \ln(w_{jit}) + \frac{1}{2}\sum_{j=1}^{3}\sum_{k=1}^{3} \delta_{jk} \ln(w_{jit}) \ln(w_{kit})$$
$$+ \psi_1 T_1 + \frac{1}{2}\psi_2 T^2 + \psi_3 T \ln(Q_{it}) + \sum_{i=1}^{3} \psi_3 + \vartheta T \ln(w_{jit}) + \mu_{it} \qquad (6)$$

Where I denotes banks and t denotes years. C is the total operating cost plus financial costs, Q is total assets, W1 is the ratio of interest paid to depositors to total deposits, W2 is the ratio of personnel expenses to total assets, and W3 is the ratio of other operating and administrative expenses to total assets. Marginal cost is obtained by deriving the cost function, which gives the following expression :

[1] The methodology described here is that proposed by Demirgüç-Kunt and Martínez Pereira (2010)

$$Cm_{it} = \frac{\partial C_{it}}{Q_{it}} = \left(\phi_1 + \phi_2 \ln(Q_{it}) + \sum_{j=1}^{3} \varphi_j \ln(w_{it}) + \psi_3 T \right) \frac{C_{it}}{Q_{it}} \quad (7)$$

Although this measure of competition has been criticised, it is still widely used to understand banking competition. (See Demirgüç-Kunt and Martínez Pereira, 2010). Since our study is also based on data relating to banks' activities, we include a number of explanatory variables in order to control for other factors that may affect the supply of credit.

The first variable taken into account here is the size of banks (SIZE). It is obtained from the logarithm of total bank assets. Bank size affects lending in two ways. From a 'too big to fail' perspective, large banks can lend more because they are not allowed to collapse by the government. However, small banks have more incentive to lend more than large banks, as small banks have more limited activities than their larger counterparts, in terms of portfolio and investment diversification (Kim and Sohn, 2017). Mkhaiber and Werner (2021) point out that there is an inverse relationship between the size of banks and their propensity to lend to small businesses.

The cost of loans (TXDEB) is also a variable likely to influence credit maturity. Lending rates are used as a proxy for the cost of loans. A borrower issuing short-term debt may face a costly liquidation at maturity, prompting him to choose longer-term debt. At the same time, lenders prefer short-term debt to control agency problems, such as asset substitution and underinvestment. As a result, borrowers are willing to commit, and lenders demand higher margins for longer-dated loans. This variable can be found in the work of Helwege and Turner (1999). One of the key variables in the maturity of bank loans is risk (RISK). In this study, we measure risk through the gross deterioration rate of banks' loan portfolios. In an unstable economic environment, both low-risk and high-risk firms are likely to prefer longer maturities to avoid uncertainties related to interest rate policy (Flannery, 1986) and the supply of bank loans (Diamond, 1991). Banks are likely to set shorter loan maturities, especially for high-risk firms, to facilitate and increase the effectiveness of their supervision (Berlin and Mester, 1992) and to reduce the capital required by regulators and supervisors (Kirschenmann and Norden, 2012).

Bank profitability (ROA) also influences loan maturity. Indeed, the largest contribution to a bank's commercial income comes from lending, as most banks still rely on their main source of income from lending activities. Thus, the greater the number of loans granted, the greater a bank's source of income. Some recent publications that have studied the relationship between loan growth and bank profitability (Rossi et al., 2019; Dang, 2019) provide empirical evidence that there is a positive relationship between credit and ROA. However, the opposite effect may be ambiguous. A profitable bank may have an incentive to provide more loans or capitalise on its assets by limiting credit extension.

The macroeconomic environment is an important factor in loan maturity. In our case, this is economic growth and the inflation rate. Long-term economic growth (GDP) requires long-term financing. Despite its practical importance in promoting long-term economic growth, long-term financing is often insufficient, particularly

in developing countries. In volatile macroeconomic situations, banks are likely to prefer shorter maturities in order to facilitate their control through frequent renegotiations. Economic growth is measured by the growth rate of gross domestic product.

Long-term lending is affected by inflation (Infl). If the balances of outstanding loans or instalments over time are expressed in real terms, we can see that inflation reduces customers' borrowing capacity because they have to make high instalment payments in the first few years. If the inflation rate rises after a loan agreement has been entered into, the nominal interest rate also rises, and both the bank and the customer run a disproportionate risk of default. Banks must therefore be extremely careful when granting long-term loans to avoid excessively high interest rates (Tschach, 2000). The variables and data sources are contained in the table below.

Table 1: Variables and data sources

Variables	Definition of variables	data sources
CCT	Short-term loans	BCEAO
CMT	Medium-term loan	BCEAO
CLT	Long-term loans	BCEAO
LERNER	Competition	GFDD
RISK	Gross portfolio deterioration rate	BCEAO
DEBRATE	Lending rate	BCEAO
SIZE	Bank size	BCEAO
ROA	Return on assets	BCEAO
GDP	Growth rate	WDI
INF	Inflation rate	WDI

Source: Author, based on literature

4. Results and interpretation

4.1. Descriptive analysis and preliminary tests

Table 2 shows that in the WAEMU, over the study period, short-term loans represented an average of 68.7% of total loans granted, with low volatility. Short-term loans represent barely 5% of total loans granted.

Table 2: Descriptive analysis

Variables	Mean	Std-Dev	Min	Max
CCT	0,687	0,116	0,333	1
CMT	0,259	0,094	0,066	0,522
CLT	0,053	0,070	0,008	0,436
LERNER	0,282	0,070	0,04	0,548
RISK	19,151	10,355	5,2	84,39
DEBRATE	11,524	2,675	2,532	18,779
SIZE	6,041	0,413	5,036	6,837
ROA	1,541	2,479	-5,06	14,324
GDP	4,240	3,747	-10,694	15,376
INF	2,583	2,520	-3,099	11,305

Source: Author, based on data from BCEAO and the World Bank

The level of risk remains high, with the gross deterioration rate of the loan portfolio showing an average value of 19.15%. Like the portfolio deterioration rate, the interest rate is high (11.52%), even though it is below the usury rate (15%). Analysing a statistical series also involves examining its statistical properties. This is done by studying stationarity. At this level, there are several unit root tests in panel data econometrics. These tests can be grouped into two categories: first-generation tests, which assume the inter-individual independence of residuals, and second-generation tests, which lift this extremely restrictive assumption. To perform one of the unit root tests, it is necessary to check the individual dependence. Here, we chose the dependence test based on the Lagrange multiplier because T>N. Following the test proposed by Breusch-Pagan (1980), the results reject the presence of inter-individual dependence (chi2(21) = 25.066, Pr = 0.2443). This leads us to carry out only the first-generation unit root tests. The first panel data unit root tests were developed by Levin, Lin and Chu (2002). The questioning of the homogeneity hypothesis (judged to be too restrictive) has allowed other tests to emerge. Im, Pesaran and Shin (1997, 2003) and Maddala and Wu (1999) postulate heterogeneity at the autoregressive root. Table 3 summarises these unit root tests.

Table 3: Results of unit root tests

Variables	Im, Pesaran and Shin		Maddala and Wu	
	LEVEL	FIRST DIFF	LEVEL	FIRST DIFF
CCT	-1,883**	-7,781***	24,669**	254,702***
	(0,029)	(0,000)	(0,038)	(0,000)
CMT	-1,132	-7,438***	22,517*	233,835***
	(0,128)	(0,000)	(0,068)	(0,000)
CLT	-5,213***	-7,678***	110,626***	298,450***
	(0,000)	(0,000)	(0,000)	(0,000)
LERNER	-5,505***	-7,547***	114,097***	258,711
	(0,000)	(0,000)	(0,000)	(0,000)
RISK	-0,840	-5,262***	47,168***	98,626***
	(0,200)	(0,000)	(0,000)	(0,000)
DEBRATE	-1,181	-7,222***	21,713*	205,997***
	(0,118)	(0,000)	(0,084)	(0,000)
SIZE	1,051	-2,144**	8,761	33,454**
	(0,853)	(0,016)	(0,846)	(0,002)
ROA	-5,593***	-7,778***	128,690***	266,688***
	(0,000)	(0,000)	(0,000)	(0,000)
GDP	-2,460**	-7,833***	87,518***	348,570***
	(0,006)	(0,000)	(0,000)	(0,000)
INF	-6,633***	-7,955***	147,965***	275,961***
	(0,000)	(0,000)	(0,000)	(0,000)

Source: Author, based on data from BCEAO and the World Bank

The results indicate that the variables are stationary if we take them as first differences. Thus, their study is subject to the existence of a linear combination between them or cointegration.

Cointegration tests on panel data are relatively recent, but have expanded quite rapidly. Hurlin and Mignon (2007) provide a detailed review of these different tests. The first set of cointegration tests is based on the residuals in the panel data models, while the second is based on the structural dynamics of the relationships.

There are two types of tests based on residuals: the first assumes that the coefficients of the variables are common to all panel members, and the second assumes that these coefficients are different (panel heterogeneity).

The cointegration test based on the homogeneity of the coefficients is carried out by Kao (1999) using a test of the Augmented Dickey-Fuller type. The particularity of this model is that it tests for the presence of cointegration for each cross-section of the panel without resorting to the hypothesis of independence between the groups. The alternative to this test (heterogeneity of coefficients) is proposed by Pedroni (1999) based on the cross-sectional average of the statistics of Phillips and Ouliaris (1990). The author presents seven statistical tests to test the null hypothesis of non-cointegration in panel data. The results are shown in the following table.

Table 4: Results of the cointegration test

		Variables		
Test		CCT	CMT	CLT
Pedroni	Modified p-p	-0,623	-0,469	-7,004
		(0,266)	(0,319)	(0,000)
	P-P	-0,745	-0,112	-5,639***
		(0,228)	(0,455)	(0,000)
	Augmented D-F	3,165***	3,362***	2,059***
		(0,000)	(0,000)	(0,019)

Source: Author, based on data from BCEAO and the World Bank
Note: (*), (**) and (***) denote significance levels of 10%, 5% and 1% respectively.

The results in Table 4 indicate that there is a cointegration relationship in the panel. We can therefore estimate a cointegration model. In our case, we estimated our model using modified least squares.

4.2. Interpretation of results

The results contained in Table 5 indicate that in the short term, the Lerner index has a positive influence on the credit distributed by banks, whereas it is negatively linked to medium and long-term credit. These results imply that in the long term, in the presence of strong competition, banks will favour their relationships with their customers by offering long-term credit. On the other hand, when competition is weak, banks will opt for short-term credit. The results are consistent with those of Liu et al (2018).

When risk increases, the credit distributed increases. In an unstable economic environment, both low-risk and high-risk firms are likely to prefer longer maturities to avoid uncertainties related to interest rate policy (Flannery, 1986) and the supply of bank loans (Diamond, 1991).

Table 5: FMOLS estimation results

Variables	CCT	CMT	CLT
LERNER	0,14***	-0,02*	-0,12***
	(2,25)	(1,64)	(-7,28)
RISK	0,01***	-0,01	0,01***
	(-2,72)	(-1,22)	(10,38)
DEBRATE	-0,01***	-0,01	0,01***
	(-3,34)	(-0,74)	(-8,60)
SIZE	-0,01***	0,02***	-0,02***
	(-3,34)	(7,07)	(-8,74)
ROA	-0,02	0,01	-0,01***
	(-0,02)	(1,32)	(-8,22)
GDP	0,01***	0,01	-0,01***
	(13,68)	(1,32)	(-4,30)
INF	-0,01***	0,01***	0,01
	(-5,53)	(4,58)	(-0,67)

Source: Author, based on data from BCEAO and the World Bank
Note: (*), (**) and (***) denote significance levels of 10%, 5% and 1% respectively.

Increasing the size of banks reduces short- and long-term credit, but increases medium-term credit. From a 'too big to fail' perspective, large banks can lend more because they are not allowed to collapse by the government. However, Mkhaiber and Werner (2021) point out that there is an inverse relationship between the size of banks and their propensity to lend to small businesses. This would explain the negative sign of the short-term credit coefficient.

The increase in bank profitability is negatively linked to the granting of long-term credit. Several studies in the US and the EU have shown a negative relationship between loan growth and profitability (Miller and Noulas, 1997; Molyneux and Thornton, 1992). This suggests that rapid loan growth could lead to an increase in risk, resulting in a fall in bank profitability. In the short term, economic growth leads to an increase in credit, but in the long term, it reduces banks' supply of credit. Indeed, in volatile macroeconomic situations, banks are likely to prefer shorter maturities in order to facilitate their control through frequent renegotiations.

Inflation reduces short-term credit but increases medium- and long-term credit. The result is similar to the Patinkin effect. There is a relationship between the interest rate and the inflation rate. An increase in inflation can lead to a rise in the nominal interest rate. For households, an increase in the rate of inflation can affect their purchasing power (a fall in purchasing power). To maintain their level of consumption, they will demand money (credit) despite the increase in its price. This explains the positive relationship between inflation and long-term credit. This result is contrary to the work of Demirgüç-Kunt and Maksimovic (1999) and Tinoco-Zermeño et al (2022), who find a negative relationship between inflation and long-term credit.

5. Conclusion

The purpose of this article was to analyse the effects of bank competition on credit maturity in the WAEMU. This objective was achieved by using a relatively recent econometric method, namely FMOLS, on a sample of 7 countries in the union over the period 1996-2021. The results of the estimation show that in the long term, in the presence of strong competition, banks will favour their relations with their customers by offering long-term loans. The results imply that WAEMU authorities can stimulate competition through regulatory measures to give businesses access to long-term credit.

Inflation reduces short-term credit but increases medium- and long-term credit. Economic growth leads to an increase in short-term credit, but in the long term, economic growth reduces banks' supply of credit. Increasing the size of banks reduces short- and long-term credit, but increases medium-term credit. The increase in bank profitability is negatively linked to the granting of long-term credit. These results imply that the banking authorities must ensure that the banking sector is more competitive in WAEMU countries.

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