Banking Governance and Financial Profitability in the CEMAC Zone

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Abstract

This paper investigates the relationship between internal governance mechanisms, specifically the impact of the board of directors, and the financial profitability from a sample of 20 credit banks in the CEMAC zone over the period 2010-2017. By mobilising a quantitative methodology, using STATA 12.00 software, the results suggest that institutional and foreign directors have a significant and positive impact on financial profitability, in line with theoretical predictions, while public directors have a significant negative impact on profitability. Sufficiently large banks are more profitable than their smaller counterparts, while board size has no significant impact on bank financial profitability. The study recommends further privatisation of state-owned banks.

Key words: *Bank governance, governance mechanisms, board of directors, financial profitability.*

1. Introduction

The subject of corporate governance has resurfaced in the wake of the numerous financial scandals that have shaken economic life in developed countries, particularly in America and Europe, as well as in Asia. In fact, the beginning of the debate on corporate governance goes back to the work of Berle and Means in 1932. These authors found that as listed public limited companies developed, the ownership structure in large companies tended to become dispersed. In this structure, the decision-making power of shareholders (principal) diminishes and is entrusted to managers (agent) who do not hold shares. This separation of ownership (shareholder) and management (officer) is at the root of the agency problem.
Managers whose task is to manage the company to serve the interests of their principals have specific skills and better information about the company and its environment. This asymmetry of information enables managers to direct the management of the company according to their own interests, which may differ from those of their shareholders (Boubel and Pansard, 2004).

Under these conditions, corporate governance can be defined as a set of mechanisms that discipline managers. According to Shleifer and Vishny (1997), *corporate governance covers the means by which suppliers of capital to a company can ensure the profitability of their investment.* This definition limits the scope of governance to conflicts of interest between

management and *shareholders*.
Charreaux's (1997) definition is broader. "*Corporate governance covers all the organisational mechanisms which have the effect of delimiting the powers and influencing the decisions of managers*", in other words, which governs their conduct and define their discretionary space. It thus broadens the sphere of players concerned by conflicts of interest: bankers, employees, customers or public authorities (stakeholders).
Financial institutions, essentially banks, are concerned by the problem of governance, since they experience distinct agency problems due to the high degree of opacity and regulation that distinguishes them from other unregulated companies, which places banks at the heart of governance issues.
The CEMAC zone[1] is not to be outdone. Indeed, this zone has just experienced a banking crisis of such magnitude that it took two restructurings to clean up the banking system. It should be emphasised that, at the end of the 1980s, the banking system in the CEMAC countries was characterised by a very strong state presence in many aspects of its organisation and, above all, its operation (Avom 2007).
Following the European model, and in particular the French model, banks remained under the influence of the State, which wanted to turn them into a powerful instrument of economic development, in order to compensate for the loss of control over monetary policy and in particular exchange rate policy. Among the internal factors of the banking crisis, the presence of the State in the shareholding of banks encouraged the development of conflicts of objectives and laxity in management, by developing opportunistic behaviour in the form of moral hazard of the type described by Stiglitz and Weiss (1981). It materialised in the form of numerous public and private bank debts that benefited from an implicit state guarantee and/or that of debtors who occupied important positions in the spheres of power. According to Hugon (2007), the factors explaining the downgrading of banks were linked to the quality of their management; management errors were of two kinds, namely the distribution of credit to unprofitable companies and the excessive inflation of overheads. In the CEMAC zone, in the case of Cameroon, of the 20 banks in operation in 2024, Amity Bank, which went bankrupt in 2008 and was taken over by the Financial Africa group and renamed Bank Atlantic, was sanctioned by COBAC in 2021 for failure to comply with regulations. The SFA's licence was withdrawn, CBC Bank was placed under provisional administration from 2009 to 2016, and NFC Bank has been under provisional administration since March 2013, for more than 11 years! This means that around twenty microfinance institutions have been placed under provisional administration between 2019 and 2024. This leads us to ask the question: *Do the governance mechanisms of CEMAC banks improve financial profitability?*
The purpose of this article is to analyse the impact of the board of directors on bank performance. The article is structured in four parts, which will help to situate the research in relation to previous research (section 2). The economic modelling is detailed in section 3 and the results and recommendations are presented in section 4.

2. Review of the literature, theory and development of hypotheses.

It is commonly accepted that the ability of bank boards to align their interests with those of shareholders and regulatory bodies depends on their composition and size, as shown by Fama and Jensen (1983). These authors show that the quality of the board of directors makes it

[1] Economic and Monetary Community of Central Africa.

possible to minimise agency costs and maximise the value of the firm. Several aspects have been developed in the literature, and it emerges that independence, like its size, is supposed to increase the effectiveness of this body.

In accordance with the agency theory, the large size of the board of directors favours its domination by the executive and possibly creates conflicts of interest between directors and managers. The result is a fragmented, ineffective board that has difficulty reaching consensus on important decisions (Jensen, 1993).

Some authors have concluded that board size is negatively related to firm performance (Hermalin and Weisbach, 2003). On the other hand, several others have insisted on the positive effect of a large size (Dalton et al, 1999). In their view, the diversity of skills resulting from large boards may be more important than the increase in communication, coordination and decision-making problems.

Agency theory states that it is difficult for the bank's internal directors to oppose the decisions taken by the bank's managers, because the latter are their hierarchical superiors and therefore have the power to compromise their careers and their future in the company.

On the other hand, directors from outside the company, i.e. foreign and institutional directors, can oppose management decisions, as they represent influential partners for the bank thanks to their considerable financial resources, which enable them to become very active investors in the control of managers. (Whidbee, 1997 and Aggarwal and Jacques, 1998).

Their representatives on the Board are thus able to influence management decisions with a view of maximising returns on their investments and thereby improving the bank's performance. They also have privileged access to information because of their activities and the many investments they make. This implies a better knowledge of the sector, abundant information on the environment and, consequently, a better assessment of management performance (Alexandre and Paquerot, 2000). In addition, these directors and their institutions have a greater capacity to process financial and economic information. In fact, they have special skills enabling them to analyse the bank's accounts in detail, as well as its development prospects and the quality of its management.

Nevertheless, Paquerot (1997) points out that the agency theory is not sufficient to decide on the action of institutional directors on managers, and that account should be taken of the entrenchment theory, which states that institutional directors are not encouraged to strengthen their controls because of the strategies of managers, who may seek to increase their influence over partners (particularly through asymmetric information). Furthermore, they have no more opportunity than other board members to replace managers when the latter have eliminated competition on the employment market.

Studies of foreign ownership of banks (such as Berger et al. 2000, Claessens et al. 2001) often identify efficiency differences between banking institutions with high levels of foreign ownership and those with high levels of local private ownership. The former are generally part of bank holding companies and benefit from the economies of scale that characterise these large organisations. They also have the advantage of serving a multinational customer base by setting up in other countries, mainly those that are home to their customers' foreign subsidiaries.

In addition, banks with strong foreign ownership have better access to capital markets, a greater ability to diversify risk and greater opportunities to offer some of their services to foreign customers who are not easily accessible to local banks. In developing countries, foreign-owned banks from developed countries also have access to new technologies, especially information technology.

Demirgüç-Kunt and Huizinga (2004) add that these banks are exempt from many restrictions, including the allocation of credit. Bonin and Wachtel (2005) assert that in developing countries, and especially those in transition (opening up of the economy, etc.), all these advantages outweigh any disadvantages due to disparities in regulations and economic realities.
Several studies (such as Bhattacharya et al. 1998, Claessens et al. 2001) also confirm that opening up banks to foreign capital in emerging countries improves their performance by giving them greater access to technology and, above all, to best governance practices.
Moreover, Whidbee (1997) finds that the impact of foreign directors on firm performance is positive. They state that the recruitment of a new foreign member to a firm's board is perceived by investors as a signal of transparency and a desire to improve governance. This gives them greater confidence in the activism and independence of the board, and consequently increases the value of the firm.
Based on the assertions of agency theory, state-owned banks would suffer less disciplinary effect from the financial market. This would encourage their managers to follow their own interests to the detriment of the interests of their institutions. The managers of private banks would then be subject to greater pressure from their environment and a more intense disciplinary effect from the financial market. In addition, property rights theory and public choice theory are two complementary approaches to analysing the differences in performance between public and private enterprise. According to Ehrlicht et al (1990), a number of fundamental propositions emerge from these two theories to justify the poorer economic performance of public enterprises compared with private companies: politicians do not work for the general interest, and are focused on their own personal interests; they are more concerned with the quest for power; and, above all, they suffer little, if at all, from the monetary and financial consequences of their decisions.

2.1. The impact of board size on bank profitability.

The results of studies on the effects of board size are contradictory. Some of them show that boards with a small number of directors have a more effective control function than large boards, which have difficulty coordinating their supervisory efforts and encourage managers to pursue their own interests (Lipton and Lorsch, 1992). Other authors, on the other hand, stipulate that a small board can be easily controlled and influenced by the executive, whereas a large board presents a variety of experiences belonging to the different directors (Gary and Gleason, 1999). The size of the board of directors can also have an impact on risk-taking by the manager. Adams and Mehran (2003) found that when board size is high, firms always have high levels of performance (measured by Tobin's Q) associated with high levels of risk. They also found that when board size is small, board members can be easily manipulated and influenced by the executive.
We predict that a larger board size could help it to better assess the risk of investment projects, thanks to the diversified structure and greater expertise that characterises a larger board (Pathan, 2009), which would increase the value of banks. We therefore anticipate the following relationship:
H1: The size of the board of directors has a positive impact on the profitability of CEMAC banks.

2.2. The impact of external directors on bank profitability.

Studies on the independence of the board of directors, particularly outside directors, are not

abundant, and come to divergent conclusions. For example, Fogelberg and Griffith (2000) state that boards dominated by outside directors have better control over bank executives than those dominated by inside directors.

Brewer, Jackson and Jagtiani (2000), who examined the effects of governance elements on merger and acquisition premiums in the banking sector during the 1990s in the USA, found that these premiums increased with the independence of the target bank's board. Byrd, Fraser, Lee and Williams (2001) examined US banks during a crisis. They found that those that survived had more outside directors on their boards than other banks. Similarly, Nam (2004) states that outside directors are the most influential and the only ones who can ensure that banks apply the regulations specific to their activities and that managers do not engage in discretionary behaviour that harms shareholder wealth.

On the other hand, Adams and Mehran (2003) show that the percentage of outside directors has no effect on the stock market and accounting performance of banks. Prowse (1997) states that outside directors are less effective in disciplining bank managers than government regulation. Fogelberg and Griffith (2000) also find no relationship between performance and board composition, confirming the results of Pi and Timme (1993). We predict that in the context of the CEMAC, which has undergone a major crisis, the following hypothesis :

H2: Institutional administrators have a positive impact on the profitability of CEMAC banks.

H2 (Bis) : Foreign directors have a positive impact on the profitability of CEMAC banks.

2.3. The impact of public administrators on the profitability of CEMAC banks.

Studies by La Porta, Lopez-de-Silanes and Shleifer (2002) reveal that in all countries, mainly in the developing world, state ownership of commercial banks is an effective manifestation of their inefficiency. In fact, the most important issues relating to state ownership of banks concern the availability of loans and the allocation of the credit portfolio, and above all efficiency. Such banks suffer from low efficiency and high levels of non-performing loans. Other studies, such as Ehrlich et al (1990), come to the conclusion that the negative effects of this ownership and of the presence of "state or public" representatives on boards of directors on bank performance. This is why our third hypothesis postulates :

H3: State administrators have a negative effect on the profitability of CEMAC banks.

3. Methodology.

The data we use in this paper come from secondary sources. They come from data from the International Monetary Fund (IMF, World Development Indicators, 2018). These data are quantitative in nature, and since these data are longitudinal in nature and not cross-sectional, we will naturally resort to panel data, like most previous studies that address a problem similar to ours.

3.1 Composition of the sample.

Our work will be limited to commercial banks operating in the CEMAC zone from 2010 to 2017, based on reports published by COBAC[2] . The choice of period is justified by the end of the second wave of bank restructuring by COBAC in 2006, so we are measuring the effects of regulation 4 years later and the availability of data. Our work concerns a two-dimensional panel, and we are interested in banks from the countries in the zone, namely Cameroon, Chad, the Central African Republic, Gabon, Congo and Equatorial Guinea.

[2] Banking Commission for Central Africa.

However, we exclude from our sample banks with incomplete or unavailable data, which do not fully inform our variables. Our sample finally consists of 20 banks, whose choice of variables was guided by recent studies on bank profitability (Ghazi, 2006; Verdier and Hodonou, 2010), but our study differs in certain respects: the sample is larger, there is no duality of management in the managerial sphere and the study period is more recent. The equation of our model is written as follows:

$$\prod_{i,t} = C + \sum_{k=1}^{k=k} \beta_k X_{i,t}^{k} + \varepsilon_{i,t}$$

With :

$\prod_{i,t}$ The measure of bank i's profitability at time t ;

$\prod_{i,t}$ Corresponds to the two measures of banks' financial profitability, ROA and ROE; it is the constant term;

$\varepsilon_{i,t}$ is a random disturbance whose shape is generated by an autoregressive process of order 1.

$X_{i,t}$ Represents the group of explanatory and control variables in the model.

The equation then becomes: $\Pi_{i,t}$ = C+ β_1 CAP + β_2 TAILLE + β_3 ADINST + β_4 TAICA + β_5 ADPUB + β_6 ADETR + β_7 ETAT+ $\varepsilon_{i,t}$

3.2. Definitions and measurements of the study variables.

This involves defining the variables to be explained, the explanatory variables and the control variables.

3.2.1. Variables to be explained (financial profitability).

According to Charreaux (1997), financial theory approaches banking profitability from two perspectives: that of maximising the value of equity capital (or return on equity) and that of maximising the overall value of the firm (or economic profitability). The indicators that can be constructed to assess profitability according to this latter approach must, of course, use accounting values as an alternative to market values, especially as market values are not available in the CEMAC zone. In this paper, however, we will focus on the following measures:

ROA (Return On Asset) = $\frac{Net\ Income}{Average\ Total\ Asset}$

ROE (Return On Equity) = $\frac{Net\ Income}{Average\ Shareholders\ Equity}$

3.2.2. Explanatory variables.

The size of the board of directors. (TAICA)

Board size is measured by the number of directors on the board. This variable is used by Adams and Mehran (2003) and Ghazi (2006) and many others.

Institutional administrators. (ADINST)

The study of the relationship between the percentage of institutional directors on the board of directors and bank profitability is justified by the fact that institutional directors are described by Jensen (1993) and Adams and Mehran (2008) as having a high level of expertise. This variable is measured by the percentage of institutional directors out of the total number of directors.

Foreign directors. (ADETR)

The proportion of foreign directors on the board has been used by several authors, such as Claessens (2001) and Domanski (2005). With regards to the role played by foreign directors in

credit risk management, the theoretical debate is still open. According to the global advantage hypothesis, the foreign director improves the independence of the board of directors, resulting in a better credit policy. This is measured by the number of independent directors out of the total number of directors.

Public administrators. (ADPUB)

Like Berger et al (2005), we introduce the variable ADPUB to measure the impact of the presence of a director representing the State on the profitability of CEMAC banks. This variable is defined as the proportion of state directors on the board.

The percentage of capital held by the State (ETA).

In sub-Saharan Africa, state-owned banks have a reputation for maximising several objectives, some of which are not measurable and may weaken management incentives (Verdier and Hodonou, 2010). The variable **ETA** measures the amount of capital held by the state in the bank's capital.

3.2.3. Control variables.

We have been able to determine from the literature two variables that influence both return on equity and return on assets: the size of the bank and the level of bank capitalisation. Previous empirical studies give us useful clues for anticipating the expected sign of this variable.

The size of the bank and its financial profitability.

The theoretical arguments underpinning the link between size and risk can be divided into two non-exclusive categories. On the one hand, there are arguments in favour of a negative link between size and performance and, on the other, arguments in favour of a positive link. Several authors have found a negative relationship between performance and firm size (Ceboyan et al., 1999), while others have found a positive link (Verdier and Hodonou, 2010). It is measured by the natural logarithm of the bank's total assets. SIZE = ln (total assets)

The bank's level of capital and financial profitability.

The relationship between the level of capital and performance was first highlighted by Shrieves and Dahl (1992) to measure the impact of the level of capital on financial profitability. This measure is apprehended through the ratio: CAP = $\frac{Equity}{Total\ Asset}$

3.2.4. Descriptive statistics for model variables.

Table 1 shows us that the average size of the Board of Directors is 13 members, the average is 7 members, foreign directors represent the largest proportion of directors with sometimes 5 members, public directors represent the lowest proportion (0.428) with and institutional directors constitute the intermediate proportion (0.8571). Furthermore, there is a clear disparity in the mean values of the explained and explanatory variables and their standard deviations between the different banks in the sample. These two quantities seem to indicate that the structure of our sample is heterogeneous and that additional specification tests are essential in order to choose the appropriate estimator.

Table 1: Descriptive statistics for explained and explanatory variables.

Variable	Obs	Mean	Std. Dev.	Min	Max
roe	140	.219972	.2647805	-1.44488	.877911
roa	140	.0197889	.0331324	-.08	.282981
eta	140	10.3905	11.90006	0	49
taille	140	12.15378	1.012971	9.882622	13.95558
cap	140	.0845377	.0370656	.014317	.2117273
taica	140	7.107143	2.355757	2	13
adetr	140	.4316066	.4118821	.14285	5
adinst	140	.360836	.2198332	.02	.8571
adpub	140	.1369285	.1117983	0	.42857

Source: Author's estimates using STATA 12.00

3.3. Econometric specification of the model.

The purpose of this section is to study the effects of internal governance mechanisms on financial profitability in the case of banks in the CEMAC zone using a multiple regression model. The econometric specification allows us to test the hypothesis that the constant term is the same for all banks, or else it is specific for all banks, and to check the homogeneity of the model.

3.3.1. Specification test for individual effects.

To validate our theoretical model, we need to carry out two types of test: the Ficher test (F-test), which is used to verify the presence of individual effects. The Hausman test (1978) is used to verify the nature of these effects (fixed individual effects or random individual effects).

Our work consists of testing the hypothesis that the constant is common to all banks. If this hypothesis is rejected, we will obtain a model with individual effects. In this case, the data generation process cannot be considered as homogeneous, and this process is the same for all banks. In the cash case, the panel data technique cannot be justified. Beyond these two cases, the source of the heterogeneity should be determined in order to better specify the model (Bourbonnais, 2011).

The null hypothesis of this test is as follows: $H_0 : \beta = \beta = \beta_{12i} = 0$. This hypothesis assumes the existence of specific effects for each individual, in this case the bank. If we accept the null hypothesis, we conclude that there is an identical theoretical model for each bank, and therefore that there are no individual effects. The model is therefore completely homogeneous. On the other hand, rejecting H_0 leads us to conclude that there are specific individual effects and that the model is heterogeneous.

So we use the Ficher statistic with (K+1) (N-1) and NT-N(K+1) degrees of freedom. The Ficher's statistic can be written as follows:

$$F = \frac{(SCR_c - SCR_{mc} / N - 1}{SCR_{mc} / N(T-1) - K}$$

SCR_c is the sum of the squares of the model residuals, and SCR_{mc} is the sum of the fixed effects residuals.
*If Fc < Fstat we accept H_0.
*If Fc >Fstat we reject H_0 .

3.3.2. Application of the various tests in banks in the CEMAC zone.

To test the hypotheses constructed through the regression model of banks' internal governance mechanisms and their impact on profitability in the CEMAC zone, the panel homogeneity is tested using the Hsiao (1986) test. The Hsiao F-statistic follows a Ficher distribution with (K+1) (N-1) and NT-N (K+1) degrees of freedom and can be written as follows:

$$F = \frac{(SCR_b - SCR_a) - (N-1)(K+1)}{SCR_a / NT - N(K+1)}$$

With :
SCR_a : The sum of the squares of the residuals with no fixed effects.
SCR_b : The sum of squared residuals with individual fixed effects.
N: The number of banks, in the case of cash, N= 20 banks.
T: The number of years; T = 7 years.
K: The number of explanatory variables; K= 7
The Hausman test is a specification test used to determine whether the coefficients of the two estimates (fixed and random) are statistically different.
The result of the Hsiao test allows us to conclude that the model is heterogeneous, and the result of the Hausman test tells us that the model that best fits the structure of our sample is fixed effects.

3.4. Presentation of results.

A comparison of the two fixed and random models reveals similar results. However, the Hausman statistic tells us that the model to consider is the individual fixed effects model, for both measures of profitability (P-Value= 0.0013< 0.05 for economic profitability and P-Value = 0.0011< 0.05 for return on equity) and the efficient estimator is the *within* estimator (0.3584 and 0.3287), which reflects the fact that the relationships between the explanatory variables and the variable to be explained are the same.
The most significant variable is that representing public administrators, which is negative and significant at 1% for economic profitability. While this significance is the same for both models, it appears more important in the model with fixed individual effects, as the coefficient is larger (5.155269). This intuitive result shows that the variable (ADPUB) representing public directors is the most negatively correlated with financial profitability measured by return on equity and return on assets. This could be interpreted in the light of the previous result, that public directors encourage bank managers to take greater risks in risky activities, which are also the least profitable. While institutional directors (ADINST) and foreign directors (ADETR) are positively correlated with financial and equity profitability, since the coefficients associated with these indicators are all positive, but significant at 5% for the institutional director variable (ADINST) and significant at 10% for the foreign director variable (ADETR). This result

corroborates Adams and Mehran's (2008) finding that foreign and institutional directors often have a high level of expertise. These authors also show that institutional directors are effective in controlling and disciplining management. We could corroborate these assertions in our context and say that these managers demonstrate their knowledge or mastery of the CEMAC environment.

Furthermore, the variable (ETA) relating to the percentage of capital held by the State is negatively related to financial profitability. This result could be interpreted as the basis for the privatisation of banks in the CEMAC zone, and to the work of Braindbridge (2002), who argues that the evolution of governance systems leads to a primacy of directors rather than shareholders[3] . In the light of the work of Bonin et *al* (2005), we can explain that the credit selection policy, which consists of choosing good, less risky credit opportunities, is not necessarily the most profitable, even though Domanski (2005) states that American international investors with a solid presence in Eastern European countries concentrate their activities on consumer loans, which are very low-risk and highly profitable activities.

The same reasoning also applies to Argentina, which has undergone banking privatisation and whose new foreign investors have opted for a more cautious lending policy. According to Berger et *al* (2005), the privatised banks no longer granted credit in local currency and were no longer interested in the real estate and agricultural sectors, which are characterised by a high degree of informational opacity. Loans to these two sectors fell sharply after privatisation. In the light of this work, and given the context of the CEMAC countries, it can be said that public administrators are willing to take greater risks in pursuit of development objectives, bearing in mind that most of the countries in the zone are agricultural.

On the other hand, while the size of the board of directors (TAICA) is often reputed in the literature to have a positive impact on accounting profitability measured by ROE, (Dalton et al. 2003; Ghazi, 2006). According to these authors, the high size of the board of directors makes it possible to align the interests of the managers and the shareholders, consequently generating the increase in the accounting performance of the banks. Our results show a negative coefficient (random effects model) and a positive coefficient (fixed effects model), but both are insignificant. This shows that the size of the board of directors has no effect on the accounting profitability of CEMAC banks.

Bank capitalisation (CAP) is the significant explanatory variable (significant at 1%) after public administrators that explains accounting profitability, but in the opposite direction. In fact, this result is understandable insofar as regulatory obligations reduce part of the equity capital in order to build up a safety cushion to make the eventual failure of the bank more costly for shareholders. It is a result in line with the predictions of Shrieves and Dahl (1992).

[3]Even if the standard of maximising shareholder wealth is not contested, the principle of ultimate control by shareholders is not borne out by the facts. Shareholders have virtually no power to initiate corporate decisions and can only approve or disapprove a very small number of board actions. Strengthening governance means strengthening the role of directors, not shareholders.

Table 2: The effect of economic return on assets (ROA) and return on equity (ROE) on internal governance mechanisms.

Explanatory variables	*Economic profitability*	*Economic profitability*	*Return on equity*	*Return on equity*
TAICA	-0.0029658 (-0.23)	0.0469068 (1.85)	0.001506 (1.04)	0.02187 (1.65)
ADETR	*0.243857 (0.0726)	*0.361233 (0.044)	*0.27236 (0.082)	*0.29416 (0.047)
ADINST	**0.1411923 (0.0042)	**0.627056 (0.0031)	*0.2834 (0.042)	*0.1975 (0.0 37)
ADPUB	***-0.4989057 (0.000)	***-5.155269 (0.0005)	*-0.9455 (0.003)	*-0.8697 (0.053)
SIZE	***0.1920069 (0.0007)	***0.3863864 (0.0009)	***0.0888 (0.000)	***0.0686 (0.000)
CAP	*0.7345681 (0.0374)	*0.8309876 (0.075)	*0.1361 (0.081)	*0.12587 (0.054)
ETA	*-0.0085958 (0.016)	*-0.0376464 (0.063)	*-0.00704 (0.031)	*-00261 (0.074)
Constant	-2.011503 (4.10)	-5.062265 (6.61)	-0.12254 (3.06)	-0.1471 (2.43)
Wald (F-stat)	32.58		36.41	
p-value	0.0000	0.0000	0.000	0.000
Hausman statistics	Chi2 =23.71 Prob > chi 2 = 0.0013		Chi2= 21.66 Prob > chi 2 = 0.0011	
Specification model	Random effects models	Fixed effects models	Random effects models	Fixed effects models
rho	0.50880999	0.93596898	0.605974	0.8745
Estimator within	0.2771	0.3584	0.2579	0.3287
Beetween estimator	0.1162	0.0800	0.10588	0.0728
overall	0.1249	0.0655	0.1245	0.1154
Estimator	MCG	MCG	MCG	MCG

Notes: The value in brackets is the Student's T value.
*, ** and ***: coefficient significantly different from zero, at 10%, 5% and 1% respectively.

The size of the bank (SIZE), with its positive coefficient, shows that the accounting profitability of banks evolves significantly with their size. This result is significant at 1%. The larger the bank, the better it does. This result does not go in the same direction as Basset and Brady (2001), who show that small banks outperform large or giant banks on the basis of return on equity and return on assets. They explain that small banks achieve higher rates of return on their lending, but CEMAC banks are moving in the opposite direction.

Table 3: Summary table of model assumptions.

Assumptions	Results
H1: The size of the board of directors has a positive impact on the profitability of CEMAC banks.	Not significant.
H2: Institutional administrators have a positive impact on the profitability of CEMAC banks. *H2 (Bis) : Foreign directors have a positive impact on the profitability of CEMAC banks.*	Validated Validated
H3: State administrators have a negative effect on the profitability of CEMAC banks.	Validated.

Source: The author.

4. Conclusion and recommendations.

The purpose of this paper was to determine the relationship between internal governance mechanisms, more specifically the board of directors, and the financial profitability of banks in the CEMAC zone. We carried out a review of the theoretical and empirical literature, which enabled us to determine the working hypotheses. Based on a panel of 20 commercial banks in the CEMAC zone from 2010 to 2017, we conducted statistical tests using STATA 12.00 software.

The empirical validations of our research show that the size of the board of directors does not have a significant impact on the financial profitability of banks in the CEMAC zone. On the other hand, institutional and foreign directors have a positive impact on the profitability of banks in the zone, an intuitive result given the informational and technological advantages, as well as the experience they have. These directors, who are supposed to bring managerial discipline, are effective in the CEMAC. Another intuitive result concerns public administrators, who are positively and significantly related to the financial profitability of banks in the CEMAC zone. Another significantly positive link concerns the size of the bank, which is strongly linked to the financial profitability of these banks, which could be explained by the diversification strategies of these banks, which thereby achieve economies of scale, size thus constituting a source of competitive advantage. The study recommends greater privatisation of state-owned banks.

Beyond the limitations of our study, which covers a relatively smaller size of our sample, which results in a low explanatory power of the model, we can note extensions of our study, in particular with regard to the study of profitability, the association of other variables such as the remuneration of managers and the study of bank risk management.

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