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The Impact of Bank Governance on Banking Performance: Evidence from Listed Banks in Morocco

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Abstract : The purpose of this article is to measure the impact of the important banking governance mechanisms, on the bank's performance case of listed banks based in Morroco.
The study assessed the relationship between selected corporate governance mechanisms: ownership structure, …board member and bank performance using specially CAMELS APPROACH. The database of our sample (7 banks/ covering a period from 2004 to 2024) was collected from S&P Capital IQ.
Our study is a continuation of our previous work, notably those carried out during the preparation of our doctoral thesis, which focused on the analysis of the impact of banking governance and risk-taking on bank performance in the MENA region. During this study, we selected 43 variables from a total of 141 banks listed in the region. The results revealed the significant impact of the presence of sovereign wealth funds and independent administrators on the financial performance of banks.
Through the present study, we seek to carry out a more restricted analysis, centered on the case of Morocco, in order to verify if these same results are maintained in the national context.

Keywords : Board Members ; Ownership Structure ; Corporate Governance Mechanisms ; Bank Performance ; Agency theory ; Camels approach ; State owned structure ; Sovereign wealth funds ; Independant directors ; Employee Stock Option Plan ownership.

1. Introduction

As part of the continuity of our research work devoted to banking governance and its impact on the financial performance of banks, we considered it relevant to deepen the analysis through the realization of an empirical study focused exclusively on the Moroccan banking sector. This approach is part of a process of scientific consolidation aimed at testing the robustness of previously obtained results and refining our understanding of governance mechanisms in a specific institutional context.

As a reminder, our doctoral research focused on analyzing the impact of banking governance on risk-taking in the MENA region. This study was based on a sample of 141 listed banks from different countries in the region, and involved 43 variables integrated into a multiple regression model. The variables included both dimensions related to governance (board structure, independence of directors, duality of management functions, concentration of ownership, etc.) and financial performance (ROA, ROE, net interest margin, non performing loans, cash flows …etc.), as well as risk taking and control variables specific to banks and the macroeconomic environment.

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It should be noted that the results of this first study were analyzed by distinguishing two periods: the pre-COVID-19 period and the post-COVID-19 period. This temporal distinction allowed us to assess whether the global health crisis had altered the relationship between banking governance mechanisms, financial performance and risk-taking. The results highlighted some variations in the intensity and significance of estimated relationships, highlighting the importance of macroeconomic context and exogenous shocks in the analysis of bank performance.

However, the institutional, regulatory and economic diversity of MENA countries can introduce heterogeneity that may influence econometric estimates. Differences in the legal framework, banking supervision practices, financial market development and corporate governance can indeed change the intensity or even the nature of the relationships observed.

It is in this perspective that the present study takes place. The main objective is to examine whether the size and composition of the initial sample may have influenced the results obtained.

In other words, the aim is to verify whether the conclusions resulting from the analysis of 141 banks in the MENA region—including those observed before and after the COVID-19 crisis — remain stable when the study is restricted to a single country, characterized by a homogeneous institutional environment, and this for a long period (20 ans from 2004 to 2024).

We have therefore chosen to work on a sample of seven banks listed in Morocco. This choice is justified by the desire to focus the analysis on all Moroccan banking institutions present on the stock exchange, thus ensuring the availability and reliability of financial and governance data. Although the sample size is smaller than that of the regional study, it allows for a thorough and contextualized analysis of the Moroccan case.

The Moroccan banking sector occupies a strategic place in the national economy. It is characterised by a relatively advanced regulatory framework, reinforced prudential supervision and international expansion, particularly towards sub-Saharan Africa. These specificities make it a relevant field of study to analyze banking governance mechanisms and their influence on financial performance and risk taking.

Thus, conducting a study focused exclusively on Moroccan banks allows not only to compare the results with those obtained at the regional level, but also to evaluate the robustness of the econometric relationships highlighted previously, including in the particular context of the health crisis. It helps to identify possible national specificities and to better understand the real impact of governance mechanisms in a given institutional framework.

Ultimately, this research aims to strengthen the internal and external validity of our previous work, while providing in-depth insights into the Moroccan banking sector. It constitutes an essential complementary step in the enrichment of the empirical literature related to banking governance, financial performance and risk management in emerging economies.

The rest of the paper is organized as follows: the following section provides :

- **Theoretical background ;**
- **Hypotheses development ;**
- **The research methodology ;**
- **Data analysis ;**
- **Multiple regression ;**
- **Results and discussion ;**

2. Theoretical Background

2.1. Corporate Governance

Corporate governance is an important subject that has captured the attention of governments, corporate directors, stakeholders, and academic researchers. Proper development of the relationship between the company and its various stakeholders, which is addressed by corporate governance, is expected to foster improved corporate performance. Corporate governance is a burning issue debated by a wide range of interested parties, including government representatives, corporate executives, and even academic researchers, due to its importance for the economic growth of a company and society as a whole. Corporate governance refers to the implementation of certain binding mechanisms aimed at controlling and disciplining managers in order to protect the interests of all stakeholders. In general, its primary objective is first and foremost to manage agency problems arising from the separation of ownership and control. Among the major differences between governance systems in different countries is the existence of inconsistency between ownership and control. While some governance systems are characterized by dispersed ownership (**outsider systems**), others tend to concentrate ownership (**insider systems**) in the hands of controlling shareholders who may be individuals, family holdings, alliance blocs, or financial institutions. Agency conflicts can therefore take two different forms:

- **The first conflict occurs between managers and dispersed shareholders (Outsider):** According to La Porta et al. (2000), corporate governance is defined as the set of mechanisms by which external investors protect themselves against the risk of expropriation by internal investors (majority shareholders and managers). According to another approach, governance is considered a system aimed at delimiting the manager's freedom of action and their room for maneuver—in other words, their **discretionary space** (Charreaux, 1997b).
- **The second conflict appears between controlling shareholders (insider) and minority shareholders (outsider):** This second configuration is much less understood than the first. In the absence of the "One share, One vote" principle, data on ownership concentration can either overestimate or underestimate the effective control shareholders exercise over the company, as different countries have implemented several mechanisms to separate ownership (**cash-flow rights**) from control (**voting**).

Corporate governance refers to the implementation of certain binding mechanisms aimed at controlling and disciplining managers in order to protect the interests of all the company's stakeholders. Donaldson (1990) emphasizes that corporate governance is the structure through which the highest level of management within an organization is controlled by the board of directors, associated structures, executive incentives, and other oversight systems. Tricker (1994) argues that a boardroom should globally include owners and all those interested in a company's affairs, such as creditors, debt financiers, analysts, auditors, and corporate regulators. Corporate governance can be seen as a series of arrangements within a company that clearly identify the relationship between shareholders and the company's managers. Shleifer and Vishny (1997) suggest that the specific structure of corporate governance represents the way in which those who finance the company can ensure they will get a return on their investment. Monks and Minow (1995) argue that corporate governance is the relationship between the various participants of an organization, which influences the direction and performance of the company. The main participants of a corporation are the stakeholders, management, and the board of directors. Some researchers define it in a much broader way. Keasey and Wright (1993) argue that corporate governance is the structure, process, culture, and systems that are closely linked to the smooth functioning of an organization. CC (1992) postulates that corporate governance seeks to find a balance between economic and social objectives, and at the same time represents a balance between the achievement of

individual and common goals. Corporate governance developed alongside the theory of the firm. It was often raised when managers manipulated "other people's money" in joint-stock companies. Over time, the fundamental explanation of the relationship between the investor and the company became clear (Berle and Means, 1932). They argue that the primary problem of corporate governance is indeed related to the separation of ownership and control. Some theories of corporate control aim to solve this problem. We cite the three schools of thought on corporate governance: **Agency Theory**, **Stakeholder Theory**, and **Stewardship Theory**.

2.2. Agency Theory

Agency theory relating to corporate governance was proposed by Alchian and Demsetz (1972) and Jensen and Meckling (1976). They emphasize that firms can be seen as a nexus for a set of contractual relationships between individuals, whereas classical economics views firms as single-product entities with the goal of maximizing profit.

Learmount (2004) suggests that firms can be explained as contracts repeatedly negotiated by different individuals wishing to maximize their own profit. Agency theory explains the behavior of a firm from the perspective of various contracts between different parties. Shareholders who provide funds for the operation of a company are not considered the owners of the company; they are the risk-takers of the firm. In the real world, company managers obtain funds from investors who believe the managers have the ability to use the funds efficiently and effectively to generate profits for the companies.

Managers sign contracts that identify the activities they must engage in and specify how profits are distributed between managers and investors. Managers obtain the right to make decisions that go beyond what is stipulated in their contracts. It is human nature to make decisions that correspond to an individual's interests; it is no different for managers. They will make decisions that are beneficial to themselves and pay little regard to the interests of shareholders. This leads to the **principal problem** (Ross, 1973) and the **agency problem** (Fama and Jensen 1983a, b). Agency theory describes managers as **agents** and shareholders as **principals**. The theory argues that a firm's value cannot be maximized if appropriate incentives or adequate monitoring are not effective enough to prevent corporate managers from using their own discretion to maximize their own benefits. On one hand, the interests of principals and agents must be aligned to overcome their different preferences regarding firm activity and their different attitudes toward risk exposure. On the other hand, regarding "**information asymmetry**," the principal and the agent hold different amounts of information (normally the agent has access to more information than the principal); it is difficult and costly for the principal to monitor the agent's behavior. Jensen and Meckling (1976) identify three agency costs for principals to monitor agent behavior:

a. Monitoring costs: Borne by the principal to limit the agent's opportunistic behavior and the incentive costs (incentive systems) incurred by the principal to guide the agent's behavior.

b. Bonding costs: Costs borne by the agent to build the principal's trust. The bonding costs or commitment costs that the agent may have incurred themselves to put the principal in confidence (motivation cost). "Bonding costs result from the firm's drafting of financial reports and the performance of audits by experts outside the firm" (H. Gabrié and J.L. Jacquier).

c. Opportunity costs: Representing the loss suffered by the principal as a result of an agent's decision not in accordance with their interests. Referred to as "**residual loss**," which is equated to the loss of utility suffered by the principal due to a divergence of interest with the agent, such as the cost suffered by the principal following management by the agent unfavorable to the latter's interests. Thus, despite control and commitment, there will always remain a certain divergence between the decisions taken by the agent and those that would maximize the principal's well-being.

Regarding the theory or theories mobilized for the study of our thesis, we found several theories corresponding to our theme, namely: **Financial Intermediation Theory, Property Rights Theory, Agency Theory, Stakeholder Theory, and Stewardship Theory.** However, we based ourselves on **Agency Theory** since it is the dominant model allowing for the recommendation of methods for resolving the agency problem related to the separation between owners and managers.

2.3. Bank Governance

The debate on bank governance has continued to grow. The latter is of crucial importance for both developed and developing countries. Banks are distinguished by certain intrinsic characteristics that make their governance more specific. The specificity of bank governance, compared to corporate governance, stems from the **opacity of bank assets**, **bank indebtedness**, and the **heavy regulation of the banking sector**. The latter amplifies agency problems within banks (Morgan, 2002; Levine, 2004). Shareholders will find it difficult to properly monitor the activities and decisions of the management team. Furthermore, creditors/depositors will also find it difficult to monitor the risk taken by shareholders and managers. Poor governance is considered one of the main causes of the latest financial crisis (OECD, 2010).

It figures prominently among the mechanisms responsible for the difficulties experienced by banking sectors in particular and financial systems in general. Theoretical work (Prowse, 1997; Caprio and Levine, 2002; Levine, 2004) and empirical work (Crespi et al., 2004; Haw et al., 2010) confirm the role played by internal governance mechanisms in bank risk management. But they do not lead to a consensus as to the precise role played by the characteristics of shareholders and the board of directors in mitigating bank risk. The second-to-last financial crisis highlighted several weaknesses in corporate governance and the risk management practices of banks in developed and emerging economies.

2.3.1. The Specificity of Bank Governance

There is an abundant literature examining the particularities of banks that make them specific and justify a separate analysis. This can be summarized as follows: First, confirming that banks are generally more opaque than non-financial firms and their activity is more complex. The quality of bank loans as well as the quality of other bank assets are not easily evaluable, making a precise analysis of the risks they bear difficult. Moreover, the complexity of several financial instruments makes risks harder to measure and evaluate. During the financial crisis, for example, the risk associated with many financial innovations, such as securitized products, was not correctly understood or managed (Dell'Ariccia et al. and Carlin et al.). To worsen this situation, in recent years, rating agencies have had to evaluate new and complex financial assets for which there was no track record (historical data and appropriate risk quantification models) (see Buiter). In addition, banks can change the risk composition of their assets more quickly than most non-financial sectors, and such a change may not be immediately perceptible to directors or external administrators. The complexity and opacity of banking activity increase information asymmetry and decrease the ability of stakeholders to monitor bank managers' decisions. Even sophisticated external owners will find monitoring difficult in the presence of these attributes. Therefore, the role of boards as a mechanism for the corporate governance of banks takes on particular importance in these circumstances.

2.3.2. Internal Governance Mechanisms

There are two types of mechanisms, external and internal; note that there are no standard mechanisms and each country applies its own.

a. Ownership Structure: Several studies have examined ownership structure in corporate governance and considered it a good mechanism for monitoring and improving company performance. Berle and

Means argued that a company's equity structure has a certain impact on firm value. They believed that when the company had widely dispersed ownership, managers, who had only a limited stake, tended to abuse company resources, thus leading to an agency problem. Jensen and Meckling extended the concept and indicated that managers tended to pursue their own interests, leading to a decrease in firm value when there was a separation between ownership and control. Jensen and Meckling also believed that managers' interests tended to be more aligned with those of external shareholders when insider ownership was larger.

Related empirical studies also indicate that increasing manager and insider ownership has a positive influence on firm performance and value. Mueller and Spitz-Oener found that firm performance would be better for firms with higher insider holdings; Hanson and Song showed that operational performance after asset divestiture would be better in firms with higher manager ownership; Chen et al. found that a firm's value would be higher when managers held more shares. Pound pointed out that institutional shareholders are better equipped in terms of professional knowledge and monitoring skills than individual shareholders, and can therefore monitor management more effectively than relatively less informed or skilled individual investors. In this way, agency problems can be reduced.

Current research also generally supports the monitoring mechanism by institutional investors. Furthermore, institutional monitoring also plays an important role in firm performance. Cornett et al. indicated that more institutional investors or more institutional holdings would have a positive influence on a company's performance. Sias and Starks found that higher institutional holdings would have a positive impact on stock prices. The results above support the concept that institutional holdings contribute to improving corporate governance.

An alternative approach to mitigating the shareholders' collective action problem is to have a semi-concentrated ownership structure with at least one large shareholder, who has an interest in monitoring management and the power to implement management changes. Although this solution is less common in the US and the UK due to regulatory restrictions on block holders' actions, some form of ownership or control concentration is the dominant form of corporate governance arrangement in continental Europe and other countries.

a.1) Presence of the State as a Shareholder (State ownership structure): Unlike non-financial firms, there are ownership restrictions in banking sectors worldwide (Barth et al., 2001). Ownership in the banking sector is restricted because it is considered closely linked to issues such as the link between the economic power of credit, conflicts of interest, and the stability of the banking sector. In the banking sector, a shareholder is only allowed to hold a certain number of shares in a bank and, if they exceed a certain level, the shareholder must obtain approval from financial authorities. The ownership restriction has a major influence on the distribution of power among the bank's shareholders. There is a long history of public ownership of banks in both developing and developed countries. Although privatization has prevailed worldwide over the past two decades, public institutions still control nearly 40% of banking assets. There are two types of public ownership: dispersed ownership or concentrated ownership.

On one hand, public banks have concentrated ownership if the government is considered a single entity. On the other hand, although public banks are funded by government money as a whole, bank shares are held by individuals within the government ; when this is the case, public banks are considered to have dispersed ownership. There are many governance issues in public banks because they are used by governments to support excessive public spending or to allocate credit to borrowers with a higher probability of default.

a.2) Presence of Sovereign Wealth Funds as Shareholders (Sovereign Wealth Funds): The concept of "sovereign wealth fund" only appeared recently [Razanov (2005)]. Previously, these funds were often called "stabilization funds." While SWFs are a heterogeneous phenomenon, most share common origins; in the majority of cases, sovereign wealth funds are the evolution of funds whose main initial objective was revenue stabilization. That is, governments engaged in investment diversification with the aim of stabilizing income. Consequently, most sovereign wealth funds were created in resource-rich countries, with oil-related sovereign wealth funds being the most common (the case of Arab Gulf countries, former Soviet republics, and Norway), but other sources of funding include diamonds, copper, and other raw materials in a few African and South American countries. A second category of sovereign wealth funds relates to the accumulation of foreign exchange as a result of substantial net exports, particularly in the case of China, Singapore, and other East Asian exporters. Nevertheless, there is no real consensus on what exactly constitutes a sovereign wealth fund and, depending on the definition, the total value of assets under management can vary considerably.

a.3) Institutional Investor: Given the separation between ownership and control of companies, principal-agent problems arise because shareholders cannot perfectly monitor managers acting on their behalf. Lower profitability and poor investment allocation can result from the inability to resolve "corporate governance" problems. Institutional investors are well-placed to minimize these problems. In all OECD countries, the role of institutions is growing as their share of corporate equity increases.

a.4) Employee Ownership: (Employee Stock Ownership Plan/ESOP): Researchers have argued that ESOPs offer incentives to employees and motivate them to work. Previous studies using the US and European markets—Smith (2002), Kumbhakar and Dunbar (1993), and Jones and Kato (1995)—found higher productivity in firms with ESOPs than in other firms. Contrary to Conte et al. (1996) and US GAO (1987) who found a negative impact of ESOPs on firm performance. Several existing literatures confirm the view that executive stock options improve firm performance and productivity. They argued that they improve mutual monitoring, retain talented executives, and bring quality employees into the organization (Kim and Ouimet, 2014; Hochberg and Lindsey, 2010; Oyer, 2004; Ittner et al., 2003; Sesil et al., 2002; Jones and Kato, 1995; Lazear, 1986). The findings of Sesil et al. (2001) show that these American firms perform better than their competitors.

b. Board Composition: Agency theory asserts that the board of directors is the primary internal control mechanism. The board provides services to a company's managers to monitor management staff behavior. Waldo (1985) and Fleischer et al. (1988) argue that the main tasks of a board of directors are as follows:

- Monitor management behavior on behalf of the company owners;
- Formulate strategic decisions on firm activities;
- Detect managerial misconduct and remove the responsible parties. Macey and O'Hara (2003) argue that two duties fall to a company's board of directors:
- **The duty of care:** According to the OECD, the duty of care is a process that companies should implement to identify, prevent, and mitigate the actual and potential negative consequences (risks) of their activities in the areas covered by the Guidelines.
- **The duty of loyalty:** The duty of loyalty is based on the idea that an employer must be able to trust their employee, whether at the workplace or elsewhere. An employee must respect their duty of loyalty regardless of their field or type of position. Even if banking institutions have the same responsibilities as non-banking firms, the boards of directors of banking institutions have additional responsibilities, which take the form of guidelines, laws, and regulations. These

additional responsibilities concern the stability of banks. The BCBS (1999) states that banking sector boards of directors play an essential role in creating good corporate governance. Jensen and Meckling indicated that when ownership and management of the company are separated, agency problems can arise, meaning that managers may seek to maximize their personal interests rather than shareholder wealth. However, the agency problem could be mitigated by appropriate monitoring. To resolve potential conflicts of interest between managers and shareholders, it has become important for companies to consider how to improve corporate governance. Fama and Jensen believe that the board of directors is an important factor affecting corporate governance. The board's primary task is to approve managers' decisions and monitor manager performance, and it also has the power to hire and fire managers. Furthermore, Fama and Williamson believed that the board was responsible for protecting company profits and monitoring management to reduce the agency problem. Jensen further emphasized that a board with more **independent directors** would be better able to effectively monitor managers. Fama, Connors, and Baysinger and Hoskisson also supported the idea that independent directors could objectively evaluate the company's development and monitor management more effectively because they possess more professional knowledge and adopt a more independent stance. Weisbach also indicated that internal directors may play a less effective role in monitoring since they are often less likely to challenge and monitor the CEO. Therefore, a higher ratio of independent directors should have a positive effect on firm performance. Sharma also found that a board with a higher ratio of independent directors would reduce the likelihood of fraud, and that independent directors would once again be confirmed as having a better monitoring function. Jensen and Rechner and Dalton indicated that having the chairman of the board simultaneously serve as CEO would reduce the board's independence, particularly when the board was dominated by internal directors. Dayton also agreed with this view and warned that when a CEO is also chairman, they are better able to manipulate a board meeting to achieve their own personal goals. Sharma provided evidence that there is a greater possibility of fraud in companies where the chairman of the board simultaneously serves as CEO. Muniandy indicated that auditors would demand higher audit fees from a firm whose chairman of the board also serves as CEO due to higher audit risks. Kesner and Dalton pointed out that board independence would be compromised if the board consisted of close associates, who did not seem able to objectively evaluate the performance of their CEOs. Furthermore, Lausten found that CEOs were less likely to be replaced due to poor performance in family firms. Ali et al. indicated that there is a more serious agency problem between controlling and non-controlling shareholders in family firms. Santiago-Castro and Brown also found that minority shareholders are more likely to be expropriated due to an increase in the size of family-controlled ownership. These results suggest that family-controlled firms are characterized by poorer corporate governance. Recently, Berk and DeMarzo noted that in most corporations, each share gives a shareholder one vote in the election of the board of directors, so investors holding the most shares have the most influence. When one or two shareholders hold a very large proportion of outstanding shares, these shareholders can either be on the board themselves, or they may have the right to appoint a certain number of directors.

2.4. Performance

Although the term "performance measurement" has been used since the late 1970s, there is no universal definition yet. The "Government Accountability Office" defines performance measurement as an evaluation of an organization's performance, including measures of:

- **Productivity**, which quantifies an organization's outputs and inputs;

- **Effectiveness**, which determines the relationship between an organization's results and what an organization is intended to accomplish;
- **Quality**, which examines a result or the process by which a result is produced;
- **Timeliness**, which evaluates the time required to produce an appropriate result.

The most cited definition of performance measurement is that of Neely et al.: "the process of quantifying the efficiency and effectiveness of past actions." Although this definition emphasizes effectiveness as much as efficiency, it is unlikely to compel managers to stop and question their performance measurement systems. In particular, it focuses exclusively on the past and gives no indication of what they should quantify or why. This is why Moullin proposed another definition: "performance measurement evaluating the quality of organization management is the value they deliver to customers and other stakeholders." His definition gives much more guidance to people involved in performance measurement. Notably, it will prompt them to question the extent to which their organization measures the value they deliver to their customers and whether it covers the main aspects of its management.

2.5. CAMELS Approach Theory

In recent years, one of the most widely used models for assessing bank performance and soundness is the CAMELS framework (Roman & Sargu, 2013). In fact, this analytical framework is based on the CAMELS rating system, a tool created by federal banking regulators to evaluate the overall performance of banks (Rose & Hudgins, 2010).

To assess the overall financial condition of banks, the CAMELS supervisory rating system was first developed and introduced in the United States for on-site supervision. Today, it is used for both on-site and off-site supervision (Kaya, 2001). Central banks responsible for supervising banks in each country use rating systems to assess bank soundness (Doumpos & Zopounidis, 2010).

Due to the lack of sufficient historical data on bank failures, bank rating systems are generally based on empirical evaluation techniques (Sahajwala & Van den Bergh, 2000). Credit agencies, auditors, and banking regulators have traditionally relied on the CAMELS model (Pasiouras et al., 2006).

The most popular approach is based on the CAMELS framework, which involves six major factors (Doumpos & Zopounidis, 2010). The acronym CAMEL stands for Capital adequacy, Asset quality, Management, Earnings, and Liquidity. Regulators later added a sixth component—Sensitivity—to assess market risk related to interest rate changes and other factors (H. Hays et al., 2009), particularly during financial crises (Kandrac, 2014).

CAMELS ratings are calculated to reflect banks' financial performance across different dimensions (Oztorul, 2011). This system is a natural subject of analysis, as it is not only a widely used supervisory tool but also one of the few generally accepted quantitative measures of the otherwise flexible concept of banking safety (Derviz & Podpiera, 2008). The CAMELS ratio model is highly appropriate and accurate for evaluating banking industry performance and predicting failure rates (Salhuteru & Wattimena, 2015).

This system relies on various financial ratios derived from periodic reports of institutions under supervision. These ratios are aggregated into performance indices based on different weighting or scoring schemes. The aggregation process can be complex and may involve subjective judgment.

Elizabeth and Elliot (2004) indicated that financial performance measures such as interest margin, return on assets, and capital adequacy are positively correlated with customer service quality. To evaluate bank performance, it is necessary to analyze financial reports, which generally include a balance sheet, income

statement, cash flow statement, statement of changes in equity, and notes to the financial statements (Salhuteru & Wattimena, 2015).

Some financial ratio data are often compared with CAMELS indicators to properly identify or predict crisis events. However, in some cases, the relevant factors behind future failures or rating downgrades are adequately captured by well-designed risk-sensitive summary statistics derived from conventional balance sheet data (Derviz & Podpiera, 2008).

2.5.1. CAMELS Components

Capital (C): The first group of variables includes capital indicators such as capital levels and capital-to-asset ratios, reflecting the strength of the institution.

Asset Quality (A):Asset quality ratios represent one of the main risks faced by banks. Since loans carry the highest default risk, an increase in non-performing loans indicates a deterioration in asset quality.

Management Quality (M):Management is a qualitative aspect, such as risk-taking ability, and is generally difficult to measure. However, it can be assessed using key ratios included in the CAMELS model.

Earnings (E):Earnings are the most important measure of bank performance. Earnings ratios and related financial ratios are calculated in this study.

Liquidity (L): Liquidity risk measures the ability of an institution to meet unexpected withdrawal demands from depositors. Liquidity ratios are expected to be both positively and negatively related to the probability of failure.

Sensitivity (S): Sensitivity ratios relate to risk exposure and the institution's hedging capacity. These indicators are crucial and are included to complete the bank performance model.

The analysis of banking sector financial performance using the CAMEL(S) method has been widely studied by researchers, academics, and policymakers over different periods (Cole & Gunther, 1998; Hirtle & Lopez, 1999; DeYoung et al., 2001; Gupta & Siabal, 2007; Desta, 2016).

3. Hypothesis Development

3.1. First Main Hypothesis

Several studies confirm a positive relationship between ownership structure and firm performance.

Empirical evidence on the relationship between state ownership, ESOPs, institutional investors, sovereign wealth funds, and firm/bank performance shows no universal consensus among scholars. However, the majority of studies support a positive impact.

H1:There is a positive relationship between ownership structure and bank performance.

The presence of the state, ESOPs, and sovereign wealth funds as shareholders enhances bank performance.

3.2. Second Main Hypothesis

Hermalin and Weisbach found no relationship between board composition and firm performance, but identified a negative relationship between board size and firm performance.

However, Jensen and Meckling argue that agency problems can be mitigated through effective monitoring, suggesting that boards with more independent directors can better control management.

Fama, Connors, Baysinger, and Hoskisson also argue that independent directors can objectively assess company development and more effectively monitor management due to their professional expertise and independence.

H2. Therefore, a higher proportion of independent directors is expected to have a positive effect on firm performance.

Finally, we note that our research model is structured as follows:

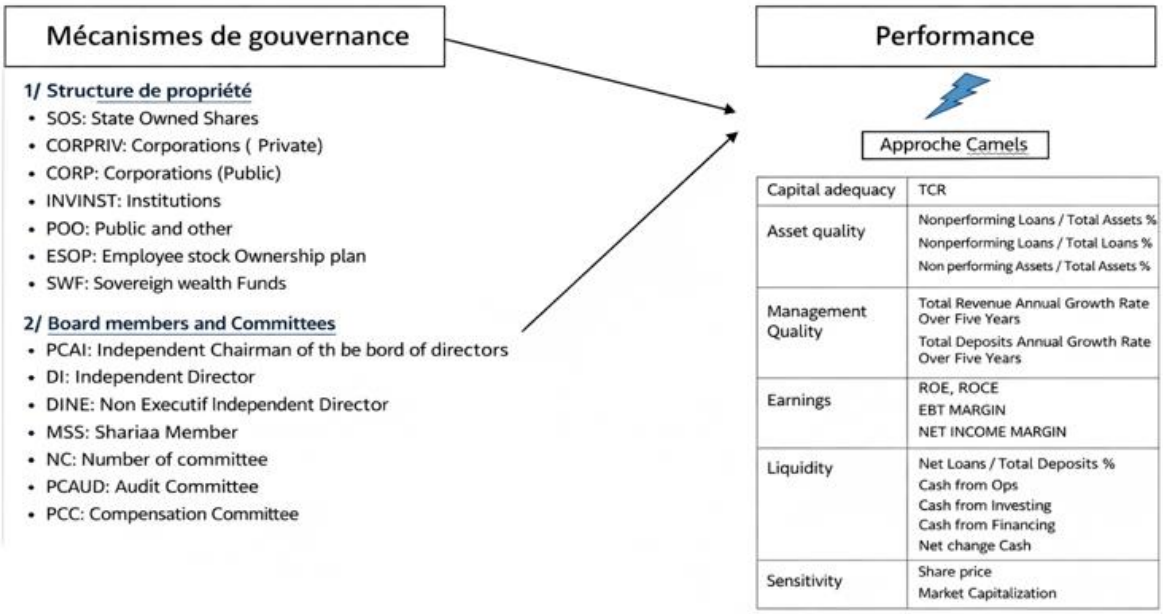


Figure 1 : Our research model

4. Research Methodology

To test the hypotheses, a quantitative method is used to measure the effects of corporate governance mechanisms on bank performance.

Definition of hypotheses: Based on preliminary research and literature review, and after defining the research problem, hypotheses were formulated using an hypothetico-deductive approach. The model includes a wide range of variables: descriptive, analytical, and causal.

Determination of variables: A table was developed listing the different variables and their corresponding measures based on the selected hypotheses.

Data collection: For the empirical analysis, data were collected to test the hypotheses. We relied on the S&P Capital IQ database, a research division of S&P Global, one of the world's leading providers of ratings, data, research, and indices.

4.1. Sampling

This study aims to examine the relationship between governance mechanisms and the performance of listed banks in Morocco.

More specifically, we analyzed the effect of ownership structure and board characteristics (board size, presence of independent directors, committees, shareholding structure, etc.) on the financial performance of listed Moroccan banks (ROA, ROE, generated cash flows, market capitalization, capital adequacy, etc.).

The study uses data covering the period 2004–2024 (20 years), making it a longitudinal study.

The sample includes 7 banks:

AWB, BMCI, BMCE, BCP, CDM, CIH, CFG.

5. Data Analysis

In this study, we focus on internal governance mechanisms of listed banks in Morocco

Our research adopts quantitative criteria :

Table 1 : Selected variables

Dependent Variables		
Performance according to the camel approach	Capital adequacy	Total Capital Ratio
	Asset quality	Return On Asset Nonperforming Loans / Total Assets % Nonperforming Loans / Total Loans % Nonperforming Assets / Total Assets %
	Management Quality	Total Revenue Annual Growth Rate Over Five Years Total Deposits Annual Growth Rate Over Five Years
	Earnings	ROE ROCE SVA EBT MARGIN NET INCOME MARGIN
	Liquidity	Net Loans / Total Deposits % Cash from Ops Cash from Investing Cash from Financing Net change Cash
	Sensitivity	Share price Share out Market Capitalization
Independent Variables		
Ownership structure	PAM : Presence of major shareholder; SOS: State Owned Shares; CORPRIV: Corporations (Private); CORP: Corporations (Public); INVINST: Institutions; INDINS: Individuals/Insiders POO : Public and other ESOP : Employee stock Ownership plan SWF: Sovering wealth Funds	PAM SOS COPRIV CORP INVINST INDINS POO
Board members and Committes	PCAI: Independent Chairman of the board of directors, DI: Independent Director; DINE : Non Executif Independent Director; DNE: Non Executif Director,	PCAI DI DINE DNE
Control Variables		
Bank Size : TCA		

Table 2 : Methodological summary

Method	Collection Techniques	Processing Tools

Quantitative Survey	**S&P Capital IQ Platform:** S&P Global is an American company based in New York specializing in financial information and analysis. It is the parent company of the financial analysis agency Standard & Poor's (S&P). Its main competitors are Moody's and Fitch Ratings. S&P Global (formerly McGraw-Hill Financial) is a former branch of the American publishing group McGraw-Hill and is independent of the former education branch, which exists today as McGraw-Hill Education.	**Descriptive Statistics** **ANOVA TEST** **CHI-Square TEST** **Multicollinearity Test** **Multiple Regression**

5.1. Statistical Analysis and Results

Table 3 : Statistical analysis (descriptive statistics)

Statistiques descriptives					
	N	Minimum	Maximum	Moyenne	Ecart type
ROA	147	0%	5%	1%	1%
ROE	147	0%	38%	11%	7%
ROCE	147	0%	40%	10%	7%
SVA	147	0%	2 806	375	502
EBTM	147	0%	191%	36%	21%
NIM	147	0%	190%	22%	18%
NPLL	147	0%	24%	5%	5%
NPAA	147	0%	23%	4%	4%
NLD	147	0%	252%	90%	42%
TCR	147	0%	17%	4%	6%
COP	147	0%	36 011,80	3 364,37	5 521,38
COI	147	0%	11 253,60	1 274,48	2 122,37
COF	147	0%	25 440,78	1 728,24	2 762,58
NCC	147	0%	20 433,61	2 072,31	3 186,81
SP	147	0%	1 180,00	353,07	286,36
SO	147	0%	222,13	87,94	89,88
MC	147	0%	141 521,70	25 124,75	27 172,47
PAM	147	0%	1,00	0,29	0,45
VC/PE (FIRM>5% STAKE)	147	0%	50%	7%	17%
INSTITUT	147	0%	33%	7%	12%
SOS	147	0%	0%	0%	0%
CORPUB	147	0%	6%	1%	2%
ESOP	147	0%	1%	0%	0%
SWF	147	0%	0%	0%	0%
CORPRIV	147	0%	70%	30%	32%
VSPEFIR	147	0%	0%	0%	0%
POO	147	6%	100%	65%	41%
TCA	147	7,00	13,00	11,71	2,06
Chairman & CEO	147	0%	1,00	0,57	0,50
Chairman	147	0%	1,00	0,29	0,45
Independent chairman	147	0%	1,00	0,14	0,35
Vice président	147	0%	1,00	0,29	0,45
P indep admin	147	2,00	5,00	3,43	1,05
PEXD	147	0%	8,00	4,57	3,12
P Internal dir	147	0%	2,00	0,43	0,73
other	147	0%	7,00	2,00	2,40
N valide (liste)	147				

This analysis focuses on the provided descriptive statistics table, which aggregates financial and governance data for a sample of 147 observations (N=147).

5.1.1. Financial Performance and Profitability

Profitability indicators (ROA, ROE, ROCE) show an overall positive but modest performance, characterized by a degree of heterogeneity.

ROA (Return on Assets): The mean is 1%. This is relatively low, and the low volatility (Standard Deviation = 1%) suggests consistency across the sample in this regard.

ROE (Return on Equity): With a mean of 11% and a maximum of 38%, the return on equity is significantly higher than the return on assets. This indicates compliance with the total capital ratios required by the Basel Committee regarding equity strengthening.

NIM (Net Interest Margin): At 22%, this figure is high, which is typical for financial institutions operating with high margins.

5.1.2. Capital Structure and Ownership

This section reveals the distribution of ownership within the studied banks.

CORPRIV (Private Ownership): This is the dominant component with an average of 30%, reaching up to 70% in some cases.

POO (Public Ownership / Other): Very high with an average of 65%, indicating a significant public presence or a large free float in the capital structure.

INSTITUT (Institutional Investors): A low average of 7%, showing that institutional investors do not hold majority stakes in this sample.

Null Variables: Indicators such as SOS, SWF (Sovereign Wealth Funds), and VSPEFIR show means and standard deviations of 0%. This implies these types of shareholders are entirely absent or insignificant within the studied sample.

5.1.3. Corporate Governance

Data regarding the Board of Directors shows marked trends:

Chairman/CEO Duality: The mean is 0.57. This means that in 57% of cases, the same individual holds both the Chairman and CEO positions.

Independence: An "Independent Chairman" is present in only 14% of cases, which is quite low.

Board Size (TCA): The board consists of approximately 12 members on average (11.71), ranging from 7 to 13 members.

Independent Directors (P indep admin): There is an average of 3.43 independent directors per board, a ratio considered very low given its importance.

5.1.4. Summary of Interpretation

The sample is composed of banks where governance is centralized (high Chairman/CEO duality) and private ownership predominates. While overall profitability is stable (ROE 11%), performance varies drastically from one entity to another, as evidenced by high standard deviations in market values and volumes (MC, COP, COF).

A crucial point to note: after conducting similar research on listed banks in the MENA region (see: https://woasjournals.com/index.php/ijfaema/article/view/397), we observed a lower percentage of duality as well as a more adequate presence of independent directors.

6. Multiple Regression Analysis

6.1. Pearson Correlation

Table 4 : Pearson correlation matrix

Corrélations

		ROA	ROE	ROCE	SVA	EBTM	NIM	NPLL	NPAA	NLD	TCR	COP	COI	COF	NCC	SP	SO	MC
ROA	Corrélation de Pearson	1	,866**	,863**	0,101	,842**	,863**	0,045	0,038	,255**	0,040	,235**	,209*	,199*	,208*	,163*	,191*	,265**
	Sig. (bilatérale)		0,000	0,000	0,224	0,000	0,000	0,586	0,649	0,002	0,627	0,004	0,011	0,016	0,011	0,049	0,021	0,001
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
ROE	Corrélation de Pearson	,866**	1	,991**	0,077	,703**	,679**	-0,024	-0,029	,347**	-0,006	,227**	,177*	,260**	,182*	0,147	,281**	,268**
	Sig. (bilatérale)	0,000		0,000	0,351	0,000	0,000	0,769	0,732	0,000	0,942	0,006	0,032	0,001	0,027	0,076	0,001	0,001
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
ROCE	Corrélation de Pearson	,863**	,991**	1	0,070	,703**	,697**	-0,024	-0,022	,334**	0,007	,214**	0,156	,244**	,162*	0,147	,241**	,235**
	Sig. (bilatérale)	0,000	0,000		0,398	0,000	0,000	0,776	0,789	0,000	0,934	0,009	0,059	0,003	0,050	0,076	0,003	0,004
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
SVA	Corrélation de Pearson	0,101	0,077	0,070	1	0,077	-0,027	,290**	,205*	0,049	0,094	,396**	,322**	,233**	,515**	0,071	,492**	,586**
	Sig. (bilatérale)	0,224	0,351	0,398		0,354	0,746	0,000	0,013	0,555	0,259	0,000	0,000	0,005	0,000	0,392	0,000	0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
EBTM	Corrélation de Pearson	,842**	,703**	,703**	0,077	1	,930**	0,015	-0,009	,325**	0,093	,239**	,246**	0,127	,218**	,245**	,192*	,276**
	Sig. (bilatérale)	0,000	0,000	0,000	0,354		0,000	0,854	0,910	0,000	0,260	0,004	0,003	0,125	0,008	0,003	0,020	0,001
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
NIM	Corrélation de Pearson	,863**	,679**	,697**	-0,027	,930**	1	-0,050	-0,043	,220**	0,042	0,102	0,100	0,035	0,075	0,105	0,004	0,075
	Sig. (bilatérale)	0,000	0,000	0,000	0,746	0,000		0,548	0,607	0,007	0,614	0,218	0,229	0,674	0,364	0,206	0,958	0,367
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
NPLL	Corrélation de Pearson	0,045	-0,024	-0,024	,290**	0,015	-0,050	1	,981**	,268**	,310**	0,059	0,115	0,024	0,144	,209*	0,123	,196*
	Sig. (bilatérale)	0,586	0,769	0,776	0,000	0,854	0,548		0,000	0,001	0,000	0,476	0,166	0,773	0,082	0,011	0,138	0,017
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
NPAA	Corrélation de Pearson	0,038	-0,029	-0,022	,205*	-0,009	-0,043	,981**	1	,281**	,295**	-0,007	0,029	-0,028	0,058	,244**	-0,012	0,067
	Sig. (bilatérale)	0,649	0,732	0,789	0,013	0,910	0,607	0,000		0,001	0,000	0,934	0,726	0,732	0,485	0,003	0,883	0,421
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
NLD	Corrélation de Pearson	,255**	,347**	,334**	0,049	,325**	,220**	,268**	,281**	1	,167*	0,032	0,058	0,031	0,028	,370**	0,078	0,074
	Sig. (bilatérale)	0,002	0,000	0,000	0,555	0,000	0,007	0,001	0,001		0,043	0,696	0,488	0,708	0,738	0,000	0,347	0,371
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
TCR	Corrélation de Pearson	0,040	-0,006	0,007	0,094	0,093	0,042	,310**	,295**	,167*	1	0,041	0,036	-0,016	0,143	0,143	0,017	0,083
	Sig. (bilatérale)	0,627	0,942	0,934	0,259	0,260	0,614	0,000	0,000	0,043		0,625	0,666	0,848	0,085	0,084	0,837	0,316
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
COP	Corrélation de Pearson	,235**	,227**	,214**	,396**	,239**	0,102	0,059	-0,007	0,032	0,041	1	,655**	,612**	,732**	0,069	,522**	,706**
	Sig. (bilatérale)	0,004	0,006	0,009	0,000	0,004	0,218	0,476	0,934	0,696	0,625		0,000	0,000	0,000	0,403	0,000	0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
COI	Corrélation de Pearson	,209*	,177*	0,156	,322**	,246**	0,100	0,115	0,029	0,058	0,036	,655**	1	,333**	,553**	-0,047	,565**	,668**
	Sig. (bilatérale)	0,011	0,032	0,059	0,000	0,003	0,229	0,166	0,726	0,488	0,666	0,000		0,000	0,000	0,572	0,000	0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
COF	Corrélation de Pearson	,199*	,260**	,244**	,233**	0,127	0,035	0,024	-0,026	0,031	-0,016	,612**	,333**	1	,240**	-0,015	,458**	,436**
	Sig. (bilatérale)	0,016	0,001	0,003	0,005	0,125	0,674	0,773	0,732	0,708	0,848	0,000	0,000		0,003	0,859	0,000	0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
NCC	Corrélation de Pearson	,208*	,182*	,162*	,515**	,218**	0,075	0,144	0,058	0,028	0,143	,732**	,553**	,240**	1	0,042	,568**	,716**
	Sig. (bilatérale)	0,011	0,027	0,050	0,000	0,008	0,364	0,082	0,486	0,738	0,085	0,000	0,000	0,003		0,610	0,000	0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
SP	Corrélation de Pearson	,163*	0,147	0,147	0,071	,245**	0,105	,209*	,244**	,370**	0,143	0,069	-0,047	-0,015	0,042	1	-,241**	-0,010
	Sig. (bilatérale)	0,049	0,076	0,076	0,392	0,003	0,206	0,011	0,003	0,000	0,084	0,403	0,572	0,859	0,610		0,003	0,904
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
SO	Corrélation de Pearson	,191*	,281**	,241**	,492**	,192*	0,004	0,123	-0,012	0,078	0,017	,522**	,565**	,458**	,568**	-,241**	1	,853**
	Sig. (bilatérale)	0,021	0,001	0,003	0,000	0,020	0,958	0,138	0,883	0,347	0,837	0,000	0,000	0,000	0,000	0,003		0,000
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
MC	Corrélation de Pearson	,265**	,268**	,235**	,586**	,276**	0,075	,196*	0,067	0,074	0,083	,706**	,668**	,436**	,716**	-0,010	,853**	1
	Sig. (bilatérale)	0,001	0,001	0,004	0,000	0,001	0,367	0,017	0,421	0,371	0,316	0,000	0,000	0,000	0,000	0,904	0,000	
	N	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147

6.1.1. Profitability Analysis (ROA, ROE, ROCE)

Extremely strong and significant correlations ($p<0.01$) are observed between the traditional profitability indicators:

ROE and ROCE (0.991): A near-perfect correlation, suggesting that within this sample, the financing structure impacts the return on equity and the return on capital employed in an identical manner.

ROA with ROE/ROCE (approx. 0.86): A very solid relationship indicating that asset performance translates directly into profitability for shareholders.

6.1.2. Performance Drivers (EBTM and NIM)

EBTM (Earning Before Tax Margin): Highly correlated with ROA (0.842) and NIM (0.930). This demonstrates that the pre-tax margin is primarily dictated by the entity's ability to generate a net interest margin.

NIM (Net Interest Margin): Shows a strong correlation with ROA (0.863) but, interestingly, a weaker correlation with ROE (0.679). This suggests that while interest margins are vital for asset efficiency, other factors (such as leverage and taxation) influence the return on equity.

6.1.3. Risk and Cost Analysis (NPLL, NPAA, COF)

Asset Quality (NPLL & NPAA): These two variables are correlated at 0.981, which is logical as they both measure non-performing assets (bad debt).

Key Observation: They show almost no significant correlation with ROA or ROE. This could indicate that during the period studied, risk provisioning was not the major limiting factor for profitability, or that risk variations were smoothed out.

6.1.4. Structure and Valuation (SVA, NCC, MC)

Market Capitalization (MC): Market cap reveals several interesting correlations:

Strong correlation with SO (0.853) (Shares Outstanding): This is a mechanical/mathematical relationship.

Solid correlation with NCC (0.716), COP (0.706), and COI (0.668).

SVA (Shareholder Value Added): Correlated at 0.588 with MC, confirming that the creation of shareholder value added is positively recognized and penalized (rewarded) by the market.

7. Results and Discussion

The multiple regression analysis excluded non-significant elements, retaining only the significant relationships with the following variables:

- ROA (Return on Assets):

This new set of data presents the results of several multiple linear regressions conducted on the same sample (N=147). The objective here is to determine how governance variables (Ownership Structure and Board of Directors) influence performance indicators.

Below is the detailed analysis by model:

7.1. Analysis of Findings

Variable Filtering: By removing non-significant predictors, the model highlights the specific governance drivers that truly impact the bank's return on assets.

Ownership Impact: The regression measures how shifts in private versus public ownership concentrations significantly correlate with changes in ROA.

Board Effectiveness: The analysis isolates whether board size or the presence of independent directors serves as a statistically significant predictor of financial efficiency.

7.2. Synthesis

Table 5 : Summary of regression results

Indicator	Model Significance	(Adj. R^2)	Conclusion
ROA	No	3.20%	Governance does not explain the gross performance of assets.
ROE	Yes	9.30%	Modest positive impact linked to the presence of internal directors on financial performance.
SVA	Yes (Strong)	27.70%	The presence of independent directors and major shareholding held by a private corporation seem t a major lever for stock market value creation.
EBTM	Weak	5.10%	Minor influence on overall profitability.
NIM	Null	-1%	The core banking business escapes the control of the governance structure.
NPLL	Moderate	19%	Governance seems linked to risk management (non-performing loans).The ownership structure does not have a significant impact on non-performing loans; however, we note that the presence of the vice president and internal directors has a moderate effect on the management of non-performing loans.
TCR	Weak	9%	Weak impact of banking governance mechanisms (ownership structure and board of directors) on the financial performance of listed Moroccan banks.
COP	Strong	40%	Cash flows from operations are mainly impacted by public shareholding.This can be interpreted through a confidence bias (reduction in the cost of risk and stability of deposits).However, this hypothesis is no longer valid if the bank sacrifices its commercial margin for public policy objectives.
COI	Strong	32%	Cash flows from investments are impacted by a high rate of presence of independent directors but also by the private corporation as a shareholder and the free float.
COF	Moderate	23%	Modest impact of the presence of either public or private shareholding, depending on the context.
NCC	Strong	35%	The NET CASH FLOWS determining the survival and growth capacity of banks are mainly influenced by the presence of independent directors, the type of private corporate shareholding, and the free float.
SP	High	67%	The most spectacular impact is on market variables (Stocks price, Market Capitalization, Shares outstanding). We note a very significant impact of the majority of variables relating to the selected governance mechanisms.
SO	High	96%	
MC	High	81%	
PAM	High	100%	We select this variable as a control variable.

This empirical study examines the impact of governance mechanisms on the financial, operational, market performance, and cash flow dynamics of listed banks in Morocco over a long-term period (2004 to 2024). To structure this rigorous analysis, the findings are categorized into major analytical dimensions :

7.2.1. Market and Stock Performance: A Spectacular Impact

Moroccan bank governance displays its strongest explanatory power in this category, with models yielding exceptionally high adjusted R/2 values.

Presence of a Majority Shareholder (100% Control Variable): Selected purely as a control variable, its maximum explanatory power validates the model's overall structure.

Sectoral Interpretation (2004–2024):

Board structure and ownership type are the primary drivers of how financial markets (Casablanca Stock Exchange) perceive a bank. A governance framework deemed robust—specifically through the presence of independent directors and majority ownership held by private corporations—highly reassures investors. This directly optimizes stock prices, overall valuation (MC), and shareholder value creation

(SVA). Over the 2004–2025 period, which was marked by Bank Al-Maghrib's regulatory reforms, the market heavily overvalued banks with transparent, private governance.

7.2.2. Cash Flow Dynamics: A Predominant Influence

Governance heavily dictates how cash flows are generated, invested, and retained.

COP (Cash Flow from Operations): Strong Significance ;

Key Mechanism: Primarily impacted by public ownership. The presence of the State or public entities creates a "confidence bias." This stabilizes customer deposits and lowers the cost of risk, optimizing operational flows. However, the study highlights a critical limit: this advantage is negated if the bank is forced to sacrifice its commercial margin to serve public policy objectives (subsidized loans, supporting sectors in crisis, etc.).

-NCC (Net Cash Flow / Survival Capacity): Strong Significance

Influenced by independent directors, private ownership, and the stock float.

-Net Cash Flow determines the bank's long-term survival and growth capacity. An active public float and independent directors act as safeguards, preventing cash destruction and forcing a prudent allocation of liquid resources.

COI (Cash Flow from Investments): Strong Significance

Linked to high ratios of independent directors, private corporate ownership, and the public float.

Long-term investment decisions (technology, expansion, M&A) depend heavily on the oversight exercised by independent board members, preventing unprofitable vanity projects.

COF (Cash Flow from Financing): Moderate Significance |

The impact on financing flows (fundraising, dividends) is intrinsically context-dependent (the trade-off between public and private ownership).

7.2.3. Risk Management and Prudential Governance: A Targeted Influence

In the Moroccan banking sector, governance is not just about making a profit; it must ensure stability.

NPLL (Non-Performing Loans Level): Moderate Significance

Notably, ownership structure (whether the shareholder is public or private) has zero influence on the volume of bad debt. Instead, internal managerial organization—the active presence of a Vice President and internal directors—shows a moderate effect on controlling default risks.

TCR (Regulatory Capital Ratio / Solvency): Weak Significance

Governance (board and ownership) has only a marginal impact (9%) on regulatory solvency ratios. This makes perfect sense in the Moroccan context: the TCR is a strict statutory constraint dictated by Basel II, III, and IV standards uniformly enforced by Bank Al-Maghrib. Banks comply out of regulatory obligation, regardless of their internal governance style.

7.2.4. Operational and Accounting Profitability: The Dead Center

The study's most surprising finding lies in the near-total inability of governance to explain pure operating profitability.

ROE (Return on Equity): Statistically Significant

Very modest impact, specifically correlated with the presence of internal directors.

EBTM (Earnings Before Taxes and Management fees): Weak Significance

Governance has only a minor influence on gross overall profitability.

ROA (Return on Assets): Not Significant

The model fails to prove a link. Governance in no way explains how efficiently a bank utilizes its assets to generate profit.

NIM (Net Interest Margin): Zero Impact |

There is a complete absence of impact. The core banking business (collecting deposits and lending at a certain rate) entirely escapes the control or influence of governance.

During the 2004–2024 period in Morocco, the Net Interest Margin (NIM) and Return on Assets (ROA) depended on external macroeconomic and structural variables: national monetary policy (Bank Al-Maghrib's benchmark interest rate), the global economic environment, sectoral competition, and GDP growth. A bank's corporate governance cannot magically alter market rates or the country's economic climate.

8. Comparative Conclusion: Toward a Dual Model of Bank Governance

The cross-analysis of both studies (MENA REGION and MOROCCO) reveals a strong academic consensus while highlighting the profound impact of institutional ecosystems on financial performance.

8.1. The Universality of Independent Counter-Power

Both research works indisputably converge on one major point: **independent directors constitute the backbone of modern corporate governance in the region.**

- At the macro-regional level (MENA), their presence is directly associated with an overall improvement in banking performance.
- At the micro-sectoral level (Morocco), their impact is more targeted but equally fundamental: they act as watchdogs over resource allocation, the strategic relevance of long-term investments (COI), and the preservation of shareholder value (SVA).

This finding strongly validates agency theory: in banking environments characterized by high ownership concentration, board independence remains the most powerful signal of trust sent to financial markets.

8.2. The Mutation of State Capital: From Welfare-State to Investor-State

The most insightful divergence lies in the nature and impact of public ownership within the capital structure:

- **The Moroccan model** illustrates the ambivalence of traditional public shareholding. While it brings undeniable stability to operational cash flows (COP) via a "confidence bias", it carries the structural risk of commercial margin erosion whenever the bank is utilized to serve socio-economic public policy objectives.
- **The MENA model** highlights a different, modern reality: the rise of **Sovereign Wealth Funds (SWFs)**. In this context, state capital is no longer synonymous with domestic sector constraints, but rather with **financial muscle**. By positively and significantly impacting **liquidity**, MENA sovereign funds act as macroeconomic shock absorbers and long-term stability providers, without

suffering from the value-destroying political trade-offs observed within the strictly Moroccan perimeter.

8.3. In Summary

By blending our findings with the Moroccan study, it becomes clear that ideal bank governance in the MENA region relies on a subtle equilibrium: **strong backing from a state or sovereign shareholder** (guaranteeing liquidity and systemic resilience), which must imperatively be **disciplined by a highly independent board of directors** (guaranteeing efficiency and value creation).

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