

Factors influencing bank transparency: Case of emerging markets

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ABSTRACT

Using a random effect regression, this paper examines internal and external factors that may explain the differences of transparency across banks. Our sample is an unbalanced panel data of 69 commercial banks operating in seven emerging countries (Egypt, Lebanon, Malaysia, Morocco, Thailand, Tunisia and Turkey) over the period 2006-2009. The results relative to governance variables indicate that ownership concentration has a negative effect on transparency. We also find a positive correlation of transparency with government ownership. Concerning macroeconomic and juridical indicators, we observe a positive association of transparency with the existence of an explicit system of deposits insurance, the protection of stockholders' rights, and a negative one with the development of financial market and inflation. Finally, as for the impact of banks' characteristics, the empirical results show only an association between transparency and profitability measured by ROE and ROA.

Keywords: Basel II, Stability, Transparency, Information, Corporate Governance.

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1. INTRODUCTION

The recent wave of corporate scandals (Enron, Equitable life, WorldCom, Xerox, heath south and others) and financial crises (subprime 2008, Asia,1998, Mexico, 1994,...) has revived the interest for the issue of governance and transparency, especially with regard to countries seeking access to capital markets. Many experts generally agree that the main failure leading to financial crises stemmed directly from the lack of disclosure and obscure management practices. For instance, the study of [1] showed that weak corporate governance mechanisms in banks are pointed out as the main factors contributing to the recent financial crisis. Several international institutions, such as the Basel Committee on Banking Supervision (Basel 2 and 3), G7 Finance Ministers, International Monetary Fund, World Bank and the Financial Stability Board have called for increased transparency and disclosure in the banking sector. Recently, Basel 3 introduces several new rules to increase the stability and transparency of the banking sector [2]. In addition, numerous scholars, such as [3, 4, 5, 6, 7, 8, 9] also advocate a transparent bank system. It has been argued that the measures that enhance transparency reduce the likelihood of major bank problems, increase financial stability or at least limit the accumulation of bad debts [10]. Bank opacity contributes to instability. The main argument for transparency is that it improves market discipline. Pillar three of Basel Capital Accord (Basel 2) addresses corporate governance concerns by focusing on market-discipline mechanism to improve the flow of information between management and investors. Market discipline is a set of disclosure recommendations which is expected to enhance transparency, to limit excess risk-taking, to allow market participants to assess key information for banks financial position and to permit better supervision [11, 12]. In the banking literature, the issue about the benefits of enhancing bank transparency is very ambiguous. Many researchers conclude that transparency may have various beneficial effects. According to [13, 14, 15, 16], transparency can increase fundamental value and reduce overall funding costs by facilitating screening and monitoring. Other empirical studies [17, 18, 19] have demonstrated that high-quality disclosures improve a firm's market liquidity and reduce its cost of capital. Transparency can also diminish some risks. Bank can hedge risk liquidity and attract external refinancing by enhancing the ability to communicate solvency information to outsiders and establish effective communication transparency [20]. However, the size of the gains of transparency may vary considerably depending on the informativeness of disclosed information as well as on the ways the information is disseminated and used [21]. On the other hand and according to many studies, transparency has not always been considerably desirable in all circumstances. The research of [5] concluded that the exposit beneficial effects of transparency are far less obvious, especially when an adverse shock has occurred and the bank is already in difficult. Another study [22] showed that in cases when bank risk is exogenous and beyond the control of the bank, enhanced transparency can lead to reduction of the bank's value. More precise information need not be better: it may make an economy fragile in the sense that bank runs may occur and it may decrease welfare [23]. These costs and benefits of transparency (transparency-stability or stability-fragility; [24]) raise the question of transparency determinants. The factor impacting disclosure and transparency remain of much interest to managers, investors and researchers. In the literature, there are a number of papers that identify the determinants of disclosure and transparency, especially in the developed countries and in non-financial companies. However, in the banking sector, a few studies have investigated the determinants of bank's transparency in developing countries ([25](18 countries); [17](Indian banks); [21] (Indian banks); [26] (Kazakhstan banks);...). To fill in this gap, the present paper contributes to the existing literature by examining the factors influencing the transparency of banks in seven emerging countries. Since transparency and corporate disclosure are quite complex, we attempt in this research to consider a large number of variables that represent determinants of transparency. Then, the aim of this study is to analyze how bank's specific characteristics, bank governance and the

92 banking environment (macroeconomic and juridical indicators) affect the transparency of
93 banks. By considering all these factors together, we can develop a more comprehensive
94 model of the transparency decision including several variables that have not been
95 empirically examined in the prior literature or have not yielded consistent results. In addition,
96 we can also control interrelationships among various indicators on transparency. This paper
97 makes several contributions. It is the first study that analyzes the determinants of banks'
98 transparency in these developing countries (Egypt, Lebanon, Malaysia, Morocco, Thailand,
99 Tunisia and Turkey). Second, we examine a variety of variables by introducing internal and
100 external factors that may be important in explaining the level of transparency in a bank.
101 Finally, we collect data from an important number of banks (69) for a recent period 2006-
102 2009. The rest of the paper is organized as follows. The next section presents the sample,
103 analyzes the factors influencing the level of transparency and describes the model used in
104 this study. Section 3 reports empirical findings and section 4 concludes the paper.

105 2. METHODOLOGY

106 2.1. Sample and data

107 To compute the composite index of transparency and to analyze the determinants of bank's
108 transparency, we use annual data from balance sheet accounts and income statements of
109 69 banks operating in seven emerging countries (12 banks in Tunisia, 5 banks in Morocco, 6
110 banks in Lebanon, 15 banks in Egypt, 15 banks in turkey, 12 banks in Thailand and 4 banks
111 in Malaysia) over the period 2006-2009. All bank financial statement data is taken from
112 Bankscope Database of bureau Van Dijk's company. The macroeconomic variables are
113 sourced from annual report published by central banks in each country and from the
114 International Financial Statistics (IFS). The data of corporate social responsibility is collected
115 from CSR report and annual report for each bank. The rest of variables such as the
116 corruption index and the insurance deposit are collected from the website of transparency
117 international organization and from the report of central bank of each country respectively.

118 2.2. Measure of transparency

119 In the literature, we find several measures of transparency. Some studies (e.g., [27], [28])
120 simply used the summary scores published by Standard and Poor's in 2001 and 2002 and
121 their samples consist exclusively of non-banking firms. The most known research related to
122 the banking sector is the study of [29]. These two authors developed a measure of the
123 banking transparency based on the disclosed information, but this measure proves to be
124 deficient in the sense of the third pillar of Basel II agreements. In addition, these previous
125 studies simplified their measures by assessing the degree of transparency by the volume of
126 revealed information. The measure of transparency used here is based on the study of [30].
127 This research develops a composite index of the transparency of a bank based on four
128 dimensions: completeness, opportunity, credibility and accessibility of information according
129 to [31] and not only on the basis of the volume of revealed information. This measure of
130 banking transparency represents the aggregation of four intermediate indexes. Each index
131 represents one of the four dimensions of information. The first index related to the
132 completeness of information contained financial information (17 sub-indexes) proposed by
133 [29] and non-financial information (19 sub-indexes) defined by [32]. The opportunity of
134 information index is represented by the frequency of interim reports (biannual or quarter
135 reports). The third index concerning the credibility of information is formed by three sub-
136 indexes: audit, accounting standards and accounts adjusted by inflation. The accessibility of
137 information index is proxied by two sub-indexes: annual reports disclosure on the bank
138 website and rating agency classification (for more details of all indexes see the study of
139 [30]).

141 2.3. Determinants of transparency

142 Once the composite disclosure index is calculated bank by bank and of each year of our
143 sample, we examine internal and external factors that may explain the differences of
144 transparency across banks. The vector of explanatory variables comprises bank-governance
145 characteristics, macroeconomic and juridical indicators, and bank-specific variables
146 (Table 1).

147 2.3.1.Characteristics of the bank governance

148 The bank bank-governance variable that we include in our model represents information
149 about ownership structure, composition of the board of directors and the activities of social
150 responsibility.

151 * Ownership structure

152 The ownership structure consists in detailed distribution of common stock among the
153 different shareholders' categories. First of all, the major shareholders' ownership represents
154 the part of common stock held by the relatively important shareholders. The study of [33]
155 identified the major shareholder as the direct or indirect holder of 10 % or above of the voting
156 rights in the firm. However, another research considered that the shareholder as a major one
157 if he detains 5 % or above of the firm's common stock [34]. Some studies found that the
158 ownership concentration will imply information opacity because major shareholders have a
159 direct access to information via the board of directors [35, 36, 37]. According to the above-
160 mentioned studies, we assume that the part of the common stock held by major
161 shareholders affects the bank transparency as follows:

162 **H1a:** where the common stock is concentrated in the hands of major shareholders the bank
163 has a relatively weak transparency.

164 Moreover, it is important to study managers' ownership as being a determiner of bank
165 transparency. Managers' ownership is measured by the percentage of the voting rights they
166 hold [38]. The study of [39] confirmed that when managers' ownership goes down, the
167 stockholders would demand a stricter monitoring of the executive directors' behavior. In fact,
168 this situation would affect negatively managers' motivation to maximize the firm profitability.
169 As a result, managers would disclose information deliberately to reduce monitoring as
170 requested by outside stockholders ([34]). Then we adopt the following assumption:

171 **H1b:** An important percentage of common stock held by the executive directors of bank
172 shows relatively a low level of transparency.

173 Finally, government ownership seems to be a factor in bank transparency. Government
174 ownership encourages the firm to disclose information [34]. Firm managers would be
175 protected for markets' discipline when they reveal information which encourages them to
176 disclose more. Generally, banks would be encouraged to disclose more information to the
177 public since the capital invested by the government belongs to the national taxpayer. As per
178 [34], we expect that government ownership enhances bank transparency.

179 **H1c:** A bank shows relatively a high level of transparency where an important percentage of
180 its common stock is held by the government.

181 *Composition of the board directors

182 The board of directors has the main role of ensuring that the executive directors of the
183 company are acting with the intention of maximizing the stockholders' wealth. According to
184 [40], the board of directors loses its effectiveness of management control if it is dominated by
185 the executive directors or by the Chief Executive Officer. To achieve its control mission, the
186 board must be independent of the firm's management. There is no consensus concerning
187 what constitutes a good board of directors. However, to maximize transparency, as shown

above, stockholders should be represented by an independent board. Several studies have analyzed the link between the percentage of non-executive managers in managers' total number in the board and volunteer disclosure of information [34, 41, 42]. In our study, we expect that the highest board independence is linked to more transparency and a better control. Consequently, we assume that:

H1d: A bank being characterized by high number of independent directors in its board shows a relatively high level of transparency.

* The activities of social responsibility

Companies have different priorities of social responsibility because processes and products differ across sectors. In the banking sector, CSR concept becomes very popular during the crisis and the discussion of the moral aspect of banking has become more intense [43]. CSR includes economic, legal, ethical and philanthropic expectation that society has in relation to companies ([44], [45]). According to [44] several key elements of CSR in the banking sector have to be defined :understanding the complexity of financial services, risk management, strengthening ethics in the banking business, strategy implementation during the financial crisis, customer protection, and establishing channels for customer complaints. Given the complexity of measuring this concept, we introduce in our study this indicator as dummy variable and we estimate that social responsibility activities would have a positive impact on the bank's volunteer transparency.

H1e: A bank that invests in CSR shows a relatively high transparency.

2.3.2 .Macroeconomic and juridical indicator

In addition to the bank governance variable, the transparency of banks is related to the economic and juridical environment of the country. We consider five external determinants: financial market, inflation, deposit insurance deposit, protection of stockholder's rights and national corruption index.

* Financial market

The banking system and financial markets are sharing the role of financing the economy. As a result, undeveloped financial markets imply that banks are the major contributor to financing the economy. On the one hand, the major economic stake would encourage them to show a relatively high level of transparency. On the other hand, when financial markets are not developed, listed banks would be less encouraged to show more transparency since investors do not have sufficient monitoring power on the bank using market discipline. Consequently, we have two contradictory possible effects. As a result, we assume the following hypothesis:

H2a: The level of financial markets development has an ambiguous effect on bank transparency.

* Inflation

In the case of high inflation countries, regulators will print too much money and as a result, cannot guarantee the stability of prices. This situation would be favorable for a climate of opacity in the banking system as a whole. In fact, banks would not be strict in terms of lending policies which may increase default risks and could lead after all to reduce the bank risk rating. Consequently, banks would be more opaque. On the contrary, regulators in low inflation countries are led to adopt a monetary policy that can guarantee the stability of prices. The adopted monetary policy allows sending a strong message to banks related to borrowers' quality. In fact, banks would be more selective in lending, which allows adopting a balanced policy of risk taking. This healthy climate would favor the bank transparency and its extroversion towards the public. Several studies ([46], [47]) showed that there is a negative

relationship between inflation and firms' information disclosure. Then, we adopt this hypothesis.

H2b: Banks operating in inflationary countries show a relatively weak transparency.

* Deposit insurance system

There are two systems of deposits insurance: implicit and explicit. The implicit system represents a regime of total guarantee by public authorities. This system is based on discretionary decisions taken according to the situation. The explicit system has a known limit of deposits coverage as well as the different procedures of intervention. The majority of banking systems that have no explicit system of deposits insurance adopt an implicit system. This later favors the moral hazard. In fact, banks would have an appetite at risk since the deposits coverage exists implicitly and its border can vary according to the situation. As a result, the level of bank transparency would be relatively weak. The explicit system guarantees the confidence of the public on it and contributes to reduce the expense of banking failures. As a result, the bank would adopt balanced risk taking policies and show a relatively high level of transparency. In consequence, we assume the following hypothesis:

H2c: Banks operating in countries adopting an explicit system of deposits insurance show a relatively high level of transparency.

* Protection of stockholders' rights

According to [48], stockholders' rights differ from one country to another. The commercial laws in different countries were typically transplanted from both historically known jurisdictions: the common law which has an English origin and the codified civil law which comes from Roman law. France, Germany and Scandinavian countries had developed the civil law. The study of [48] showed that on average, countries adopting common law protect the stockholders' rights better than countries adopting civil law. Moreover, other studies such as [49] as well as [46] found that companies from common-law countries (high protection minor shareholders' rights) disclose more information than companies from civil law countries. Then, we adopt the following hypothesis: **H2d:** Banks operating in common-law countries show a relatively high level of transparency and those operating in civil-law countries show a relatively low level of transparency.

* National corruption index

According to [48], juridical standards are insufficient to protect minor shareholders; the quality of implementation of these norms is complementary. In fact, corruption is a sign of weakness of the implementation of laws related to minor shareholders protection. In the majority of countries, the biggest companies operate in a complicated political environment and have to consider several laws and regulations which constrain their activities [50]. In several countries, to avoid these pressures, firms have to corrupt politicians or regulators. We will adopt the index used by [48] who measures the corruption level of every country using ICR guide (International Country Risk). We assume that banks operating in corrupted countries are necessarily opaque. The scale from 0 to 10 classifies countries from the most corrupted to the most transparent.

H2e: The domiciled banks operating in highly-corrupted countries show a relatively low level of transparency.

2.3.3. Bank-specific variables

In addition to governance variables, economic and juridical indicators, there are other variables explaining bank transparency. Based on previous studies such as: [51, 46, 34, 52], we include the following control variables: bank size, opportunities of growth, debt ratio,

deposits, profitability (return on equity and return on assets). These variables are assumed to be linked to bank transparency as follows:

H3a: Large banks show a relatively high level of transparency.

H3b: A bank, in which deposits represent an important part of its liabilities, shows a relatively low level of transparency.

H3c: A bank having interesting growth opportunities shows a relatively high level of transparency.

H3d: A bank having a high debt ratio shows a relatively low level of transparency.

H3e: A bank having high profitability shows a relatively high level of transparency.

Table 5: variables' description

Variables	Definition and measure
Dependent variables TRANS: transparency index	Based on four dimension of information
Independent variables <u>Bank governance</u> -Mshare: major shareholders -Mown: manager ownership -Gown: government ownership -Bdirect: composition of the board directors -Sreso: social responsibility activities <u>Macroeconomic and juridical indicators</u> -Fmark: Financial market -Inf: inflation -Dins: deposit insurance system -Srigh: protection of stockholder's rights -Cindex: national corruption index <u>Bank-specific variables</u> -Size: bank size -Growth: opportunity of growth -Depo: deposits -Debt: debt ratio - ROE: return on equity -ROA: return on asset	The direct or indirect or indirect of 5% or above of the firm's common stock. Percentage of common stock detained by the execution directors of bank. Percentage of common stock detained by the government. Percentage of independent directors in the board of directors. 2: if 2 activities are cited in the annual report; 1: only one activity, 0: no activity. Total market capitalization to GDP Annual average rate of inflation 1: if there is an explicit system of insurance, 0: if the implicit system is adopted. 1: if the country adopts common law, 0: if the country adopts civil law. Index calculated by transparency international. Natural logarithm of total assets. Market to book value of share. Natural logarithm of total deposits Total debt (without deposits)/ total liabilities. Net income to capital equity. Net income to total assets.

2.4. Model formulation

In order to investigate the internal and external factors that affect the transparency of banks, we use a two-stage procedure. In the first stage of analysis, we build a multidimensional measure of the transparency which is based on four the dimensions of information. In the second stage, we examine the determinants influencing the transparency of banks by adapting the following linear model:

$$\text{TRANS}_{i,t} = \alpha + \beta_1 X_{i,t} + \beta_2 Y_t + \beta_3 Z_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where $\text{TRANS}_{i,t}$, is the measure of transparency of bank i in year t , α is a constant, $X_{i,t}$ represents the vector of characteristics of governance' bank, Y_t indicates the macroeconomic and juridical variables, $Z_{i,t}$ concerns the bank- specific variables, β_1 , β_2 and β_3 are the vector of regression coefficients, and ε is the disturbance term.

This model is estimated by using fixed effect model (FEM) and random effect model (REM). The first one is tested by Fisher test (F), while the second is examined by Lagrange Multiplier test (LM). In order to find which of these models (FEM, REM) is the most appropriate, we calculate the Hausman test (H).

3. RESULTS AND DISCUSSIONS

The empirical findings on the transparency of banks in seven emerging countries are structured on two main parts. First, we compute the transparency measure using the four dimensions of information and develop a composite index which represents four intermediate indexes. In the second part, we attempt to identify internal and external factors that explicate differences in transparency between banks.

3.1. Transparency measures of banks

The composite index of transparency is calculated bank by bank and for each country of our sample.

3.1.1. Transparency score by bank

Overall, we have detected a considerable disparity among banks concerning their transparency indexes. The results show that the least transparent bank is the 'Société Arabe Internationale de Banque' in Egypt with a transparency index equal to 14.57 %. This means that this bank is far from being in compliance with the recommendations of the Basel Committee. On the other hand, the most transparent bank is the Audi SAL bank in Lebanon, which possesses a transparency index equal to 85.03 %. Moreover, a wide disparity exists also among banks of the same country. For example, in Lebanon, the Bank of Beirut SAL has a transparency index of 39.29% which is the lowest at the country level. On the other hand, the transparency index of the Audi SAL bank is 85.03 %. This statement emphasizes the voluntary action of that bank to meet international banking standards.

3.1.2. Transparency by country

Table 2 shows that there is a disparity between seven countries in our sample. First, we observe a lack of banking transparency in the countries of North Africa. Indeed, this statement is due to several factors: micro and macroeconomic, cultural and political factors. Second, Turkey and Thailand appear on the top of the list and seem to be the countries most prepared to apply the Basel II agreements among those of the sample. Indeed, a big effort has been undertaken in these countries regarding banking transparency; for example, Turkey is trying hard to be coherent with European standards at the political, economic, and financial level with the aim of acceding to the European Union. On the other hand, Thailand

342 is a country which attracts important foreign investments in particular in the banking domain.
343 Accordingly, banking transparency is guaranteed.

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345 *Table 2: National average of banking transparency*

Rank	Country	Number of studied banks	National average of the banking transparency
1	Turkey	15	63,24%
2	Thailand	12	61,63%
3	Lebanon	6	59,80%
4	Malaysia	4	51,91%
5	Morocco	5	51,32%
6	Tunisia	12	35,30%
7	Egypt	15	30,15%
	Total	69	

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347 **3.2. Determinants of bank transparency**

348 Our next analysis is to investigate the factors which could affect the transparency of banks.
349 For this reason, we regress the score of transparency on a number of three groups of
350 variables comprising four bank governance characteristics¹, five macroeconomic and
351 juridical indicators and six bank-specific variables. To estimate the panel regression model
352 (equation1), we used three alternative models: pooled ordinary least square, fixed effects
353 model and random effects model. Three tests are used to choose between these models.
354 Firstly, the F test shows that individual effects are present since the relevant F statistic is
355 significant at the 1% level ($F(48, 167) = 18.34$), thus we choose the fixed effects model.
356 Secondly, for the random effects model and in order to investigate whether there is evidence
357 of heteroscedasticity in the residual variance, the Breush-Pagan Lagrange multiplier (LM) is
358 calculated. With the large chi-squared (LM statistic=38.57 with $p < 0.000$), we reject the null
359 hypothesis in favour of the random effects model. Finally, to choose between these two
360 models (fixed and random), we apply the Hausman test. The result ($H=9.13$, with
361 $\text{prob} > \chi^2_2 = 0.8456$) provides evidence in favour of a random effects model. Table 7 reports
362 the results of regression using the random effects model.

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¹ The variable manager ownership is eliminated in our model because of the high number of missing values

Table 3: Regression results of bank risk measures on ownership structure variables

Explanatory Variables	Coefficient	t-Student
<u>Bank Governance</u>		
Major Shareholders	-0.518	(-1.94)***
Government ownership	0.001	(2.16)**
Composition of the board directors	-0.0007	(-0.89)
Social responsibility activities	-0.005	(-0.42)
<u>Bank-characteristics</u>		
Size	0.0006	(0.37)
Deposits	-0.001	(-0.07)
Opportunity of growth	0.0001	(0.51)
Debt ratio	-0.083	(-0.63)
ROE	-0.0039	(-1.67)***
ROA	0.001	(1.87)***
<u>Macroeconomic and Juridical indicators</u>		
Financial market	-0.0003	(-1.84)***
Inflation	-0.003	(-1.67)***
Deposit Insurance system	0.146	(2.89)*
Protection of stockholder's rights	0.081	(4.20)*
National corruption index	0.005	(0.29)
Number of observation	235	
F-value	52.76*	
Adjusted R2	0.309	
Lagrange multiplier (LM)	38.57	
Hausman test	9.13	

Notes: t- statistics are between parentheses. *, ** and *** indicate statistical significance at 1%, 5% and 10%, respectively.

As can be seen in table 3, the coefficient of ownership concentration is statistically significant at 5% and negatively related to the index of transparency. The result means that a highly-concentrated bank capital is associated with a low level of its transparency. In fact, when the part of capital owned by major shareholders is increasing, the bank is less motivated to show its transparency since these shareholders would have a direct access to information via the board of directors. Our result is in line with [53, 37], as well as [54]. However some studies did not find any effect of ownership concentration (e.g.,[55]) or reported a positive relationship between transparency and ownership concentration (e.g.,[56]). As expected, the government ownership indicator has a positive and statistically (5%) significant impact on the level of transparency. This result proves that government ownership is in line with the high level of bank transparency. This finding is consistent with the study of with [34]. However, other studies ([57], [58]) showed that government ownership of banks is associated with poor corporate governance and lower transparency. According to the research of [57] government ownership of banks are less efficient than private ownership. In addition the study of [59] concerning emerging economies confirmed that bank stocks in countries with more bank state ownership have less bank specific information content. Referring to the board composition, the variable is insignificant. In our case, the composition of the board of directors (percentage of independent directors) does not explain the level of bank transparency. This is inconsistent with a result reported by other studies ([26]: a negative impact, [21]: a positive effect). A possible reason for this statement is that social and cultural factors can intervene to blur this lane. These factors differ from a country to another and do not allow giving a clear tendency of this variable in the sample. For instance, in Turkey, we pointed out that banks are characterized by boards of directors with low percentage of independent managers while their transparency indexes are higher than other studied

405 countries. Also, the variable of social responsibility activities is insignificant. As a result, the
406 existence of social and environmental activities undertaken by the bank does not allow the
407 explanation of its transparency level. This finding could be attributed to the nature of the
408 chosen measure. In fact, this measure allocates the same value to two banks investing
409 different amounts in social and environmental activities. In other words, using this measure,
410 we cannot differentiate between the bank which makes considerable efforts in social
411 responsibility and the one which invests low amounts only for marketing.

412 Turning to the macroeconomic and juridical indicators, table 3 shows that the development
413 of financial market is statistically significant (10%) and negatively related to transparency
414 score. This complies with our prediction in the sense that the development of financial
415 markets led banks to get financed by issuing new securities and to finance the economy by
416 buying securities. At the same time, banks tremendously developed their off balance sheet
417 activities (Securities investment, lines of credit, guarantees, contracts on interest rates or on
418 exchange rates, swap, options, etc). These new banking activities favored the bank opacity,
419 a result which obviously complies with [60]. We also find a negative relationship between
420 inflation and transparency. This result means that banks operating in countries having a
421 comparatively weak level of inflation show a comparatively high level of transparency.
422 Similar results which support the argument of a negative association between bank
423 transparency and inflation were reported in other studies ([46], [61]). Concerning the juridical
424 indicators, we observe, as expected, that the coefficient of deposit insurance system is
425 significant (1%) and positively correlated to the index of transparency. This result confirms
426 that the existence of an explicit system of deposits insurance encourages banks to show a
427 comparatively high level of transparency compared to the case of an implicit system. The
428 importance of this variable in the explanation of the level of transparency chosen by the bank
429 is in coherence with the report published in 2009 by the Basel Committee on Bank
430 Monitoring and the International Association of Deposits Insurers. The report stipulates that
431 the regulating authorities of the banking system do not control enough the levels of risk
432 chosen by banks and think that the explicit system of the bank deposits insurance plays the
433 role of the supplementary control tool of banks risk taking. As for the proxy of protection of
434 stockholders' rights, the results showed that this variable is significant (1%) and positively
435 correlated with bank transparency. The banks operating in countries adopting Common Law
436 are more transparent than those operating in Civil Law countries. **The same result is**
437 **confirmed by [46].** This statement was also supported by [61] who showed that in emergent
438 countries with weak protection of stockholders, companies which want to reduce their
439 expenses of external financings have to reinforce their governance mechanisms rather than
440 adopt more transparent disclosure policies. Finally, table 3 reveals that corruption has no
441 influence on transparency. This finding can be explained by the following reason: some
442 transparent banks represent subsidiaries of Europeans or North American banks and are in
443 obligation to satisfy the same conditions of transparency applied by the mother bank. For
444 instance, several French banks (BNP Paribas, Société Générale, Credit Agricole...) have
445 subsidiaries in Tunisia, Morocco and Egypt.

446 Now, regarding the effect on bank-specific (control variables) on transparency, the results
447 summarized in table 3 showed that profitability indicators (ROE, ROA) are strongly
448 associated with bank transparency. Contrary to our expectation, we find a negative
449 association between ROE and the bank transparency level. However, the result shows a
450 positive impact on transparency. This is consistent with the idea that more profitable banking
451 companies disclose significantly more information than do less profitable ones. This issue in
452 the literature is ambiguous. Some studies have shown that profitability influences the level of
453 transparency in a company (e.g., [62, 63, 21]). Other researchers found no relationship
454 between profitability and transparency (e.g., [64]) and some others suggested that the
455 direction of the relationship is not clear (e.g., [65]). In our case, we think that this interesting
456 difference between ROE and ROA is due to the ownership structure of banks. When we

analyzed the ownership structure of banks in these countries, we faced considerable difficulties to reveal the 'shareholders of last resort': The ownership origin. In fact, several politicians and Businessmen from Gulf countries are investing in banks capital via funds. The ownership structure of these funds is very difficult to reveal. This could point out the influence of political and cultural factors on bank transparency in emergent countries. Banks in these countries would be more opaque in the case of the high shareholders' profitability. So, this opacity would serve for hiding the wealth of politicians. The remaining control variables are insignificant. In fact, size, deposits, debt ratio and growth variables did not serve to explain the level of transparency of banks.

By analyzing the model's results, we can conclude that all governance, economic and juridical variables are significant except for two variables: board composition and corruption. As for bank characteristics, only the profitability indicator proved to be significant.

4. CONCLUSION

Transparency is a key variable in the financial markets, and even more so in the banking sector. It is widely considered as an important contributor to bank stability because of the use of financial reports in effective market discipline and bank supervision. It is also regarded as a necessary condition for the implementation of corporate governance especially in emerging economies. However, the issue related to factors influencing bank transparency is less analyzed in the banking literature. In order to formulate policies for an enhanced transparency of banks, this paper has used regression analysis to investigate the determinants of banks' transparency for 69 banks operating in 7 emerging economies. The factors that may affect transparency, measured by composite disclosure index, have involved bank's characteristics, Governance variables, and macroeconomic and juridical indicators.

We have obtained several interesting results. First, the transparency scores show an important disparity between banks as well as between countries. The level of transparency in countries of North Africa for all categories of information is low compared to Asia countries. For instance, Turkey is twice as transparent as Egypt. We can explain these differences by several factors, such as micro, macroeconomic, cultural and political factors. Second according to [30] the decline of transparency indexes in the majority of countries is due to opportunity and credibility indexes. It means that the lack of transparency can be explained by the disparity between qualitative and quantitative of information. Information in these banks is not revealed on time, and its reliability is subject to criticism too. Third, a regression analysis provides evidence that the level of transparency is shaped especially by corporate governance attributes and economic as well as juridical factors. The results suggest that ownership concentration is negatively related to transparency. Our findings support the view that a higher level of transparency occurs in a bank when the part of capital owned by major shareholders is decreasing. We also find a positive relationship between government ownership and transparency. This result is consistent with our hypothesis but is contrary with other studies ([57, 58]). State ownership of bank presenting a problem for corporate governance since it creates a situation of conflict of interest between the state as a monitoring authority and as a regulatory authority [66]. The variables related to board composition and CSR had an insignificant effect on transparency. Concerning the macroeconomic and juridical indicators, proxies of the development of financial market, inflation, the deposit insurance system and juridical system (stockholder's rights) display the expected sign and have an impact on the level of transparency. Fourth, most bank's characteristics variables such as size, opportunity of growth, deposits and debt ratio are insignificant in explaining the transparency levels. Only, we find association between profitability and transparency.

506 Based on the results of this study, banks have to increase disclosure and enhance
507 transparency by improving their corporate governance and implementing of voluntary
508 disclosure system with the four categories of information. In addition, makers in these
509 emerging markets, particularly in North Arica, have to undertake actions to develop financial
510 market, to implement an explicit system of insurance and give more protection to minor
511 shareholders.

512 There are several limitations to this study. First, our study does not include some variables in
513 our model such as market structure ([67]), the number of subsidiaries in a bank ([56]) and
514 cultural variables ([63]). Second, the time period of analysis is relatively short (4 years), and
515 we estimate that the results can be different if a larger time frame is used. Finally, it would be
516 interesting to widen the sample of study by adding other financial institutions such as
517 insurance and financial companies.

518

519 **AUTHORS' CONTRIBUTIONS**

520

521 'S.S.' designed the study, performed the statistical analysis, wrote the protocol, and wrote
522 the first draft of the manuscript. 'B.D.' prepared data, managed the analyses of the study
523 and approved the final manuscript

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677

678 APPENDIX

List of banks included in the sample

Country	Bank
Egypt	Ahli United Bank (Egypt) SAE Arab African International Bank Arab Banking Corporation - Egypt Bank of Alexandria BLOM Bank Egypt SAE BNP Paribas Egypt Credit Agricole Egypt Egyptian Gulf Bank HSBC Bank Egypt S A E National Bank for Development National Société Générale Bank SAE Piraeus Bank Egypt SAE Société Arabe Internationale de bank Suez Canal Bank Union National Bank - Egypt SAE
Lebanon	BLC Bank S.A.L. Bank Audi S.A.L. BLOM Bank S.A.L. Byblos Bank S.A.L Bank of Beirut Banque BEMO
Malaysia	Alliance Financial Group EON Capital Berhad

	Malayan Banking Berhad Hong Leong Bank Berhad
Morocco	CREDIT MAROC BMCE BANK Attijariwafa bank banquecentralepopula BMCI
Thailand	ACL Bank Public Comp Siam City Bank Public TMB Bank Public Comp Krung Thai Bank Public Bangkok Bank Public Company Limited Bank of Ayudhya Public Company Ltd Bankthai Public Company Limited (CIMB) Finansa Public Co, Ltd Kasikornbank Public Company Limited Kiatnakin Bank Public Company Limited Siam Commercial Bank Public Company Limited Standard Chartered Bank (Thai) Public Company Limited
Tunisia	BH BT UIB ATTIJARI BANK UBCI STB BTK BTE BNA ATB AMEN BANK BIAT
Turkey	TurkiyeKalkinma Bank Alternatifbank A.S. TekstilBankasi A.S.-Te Industrial Develop Bank Sekerbank T.A.S. Fortis Bank AS (absorbée par TEB en 2008) Denizbank A.S. Finansbank A.S. TurkiyeHalkBankasi TurkiyeVakiflarBankasi YapiVeKrediBankasi TurkiyeGarantiBankasi Akbank T.A.S. Turkiye is Bankasi A.S. Turk EkonomiBankasi A.S.

