

## The Effect of Governance Mechanisms on the Disclosure of IAS/IFRS Information: The Cases of Tunisia, France and Canada

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### **Abstract**

*In this study, the effect of governance mechanisms on the disclosure of IAS/IFRS information has been studied in conjunction with the national context. Thus, we worked on the companies belonging to different trading indices and from countries with cultures and different economic development levels. The selected countries are Tunisia, France and Canada. Our sample includes 52 Tunisian companies (40 listed on the first market and 12 on the alternative market), 244 French companies (35 CAC40 Index (top 40 French firms) and 209 CACsmall (index of French firms Small Cap)) and 223 Canadian companies (36 ^TX60 (first 60 Canadian companies) and 187 small-cap Canadian firms (^TX20 index)). The duality is the dominant variable in the explanation of the disclosure of IAS/IFRS information followed by the board size, the diversity in gender, the presence of foreign members, proxies of nationality France and Canada, the presence of controlling shareholders, the power of creditors, the audit committee, the nomination committee, the proportion of independent directors and the Compensation Committee.*

*Our results showed that the determinants of disclosure of IAS/IFRS information will vary depending on the nationality of the firm and also showed the importance of the nationality of the firm in explaining disclosed information since the proxy used "country" has significant coefficients.*

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**Keywords:** *governance mechanisms, nationality of the firm, information disclosure, IAS/IFRS.*

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### **1. Introduction**

Financial scandals and financial crises have shown the importance of internal and external governance mechanisms in explaining the disclosure of information. Thus, the characteristics of the firm, cultural and economic dimensions factors can't explain the entire disclosure. Indeed, well-structured companies that are located in a country with favorable environment for disclosure adopt information retention strategies. In this sense, by analyzing in depth the factors behind its retention strategies, we can demonstrate the existence of governance mechanisms which are barriers to the release of the desired information. Indeed, Armitage and Marston (2008) showed that the attitudes of leaders to mandatory disclosure are negative and Adelopo (2011) showed that the percentage of managerial share and the existence of a percentage of block share ownership are two factors that do not support the information since they have the ability to access internal sources of information.

Two internal governance mechanisms have attracted much attention: ownership structure and attributes of the board. Since the two extreme types of ownership structures that are diffuse ownership and

concentrated ownership can generate two types of agency problems: the managerial expediency and opportunism of shareholders (Wan-Hussin, 2009).

Studies have examined the attributes of the Board and their consequences on the disclosure of information. Thus, the diversity of the board type is associated with a high quality of debate and communication which facilitates proper dissemination of information by the Board of Directors to investors (Aliani and Zarai, 2012a, p.75).

Cheung, Jiang and Tan (2010) developed an index to measure transparency mandatory and voluntary disclosure. The results show the existence of a positive and significant relationship between transparency and market valuation of the firm. The transparency index is calculated from the governance principles. It can be calculated from, in addition to annual reports, conference reports of financial analysts, websites of firms, etc.

This paper investigates the effect of governance mechanisms on the disclosure of IAS/IFRS information. The majority of research has taken into account the firm's governance mechanisms and has neglected the importance of the national context in the explanation of the disclosure. Our study considers the nationality of the firm as an additional governance mechanism that is usually the country of domicile of the parent company.

The rest of the paper is organized as follows: we present the literature on the effect of governance mechanisms on the disclosure of IAS/IFRS information and hypotheses of the study (section 2), the research methodology (section 3), the results (section 4) and finally the conclusion (section 5).

## **2. Literature review and formulation of hypotheses**

Codes of corporate governance practices have improved transparency in the disclosure of information by companies. In this sense, studies have tried to identify and rank the importance of governance mechanisms that affect the disclosure of information. In this sense, Cheung, Jiang and Tan (2010) developed an index based on the Organization for Economic Cooperation and Development (OECD) principles of corporate governance, which are the rights of shareholders, equitable treatment of shareholders especially minority, the role of stakeholders and the composition and transparency of board committees. A positive relationship between good governance and pollution disclosures was found by Cong and Freedman (2011).

Other studies see, in strategies based on maximum disclosure of information by companies, the attitude to reduce the cost of capital or the cost of debt. In this sense, Omar and Simon (2011) considered that large companies seek to increase the trust of their partners and to advance a positive image about their activities and therefore they try to disclose more information and profitable firms disclose the maximum information to show the public the profitability of their activities and therefore to possibly benefit from external funding.

Alencar and Lopes (2010) considered that firms are encouraged to produce high quality financial reports to reduce significantly the cost of capital. Among the reasons behind the incentives of firms to differentiate disclosure standards of their country is to attract external funding sources. They have shown that more disclosure leads to a lower cost of capital. Armitage and Marston (2008) showed that firms provide information to rating agencies, banks and financial analysts to reduce the cost of debt. The costs of disclosure are related to the production of information and the loss of competitive advantages.

“The agency theory suggests that large board can play a crucial role in monitoring the board and in making strategic decisions...In addition, previous research has shown that large board size leads to higher disclosure quality” (Samaha Dahawy, Hussainey and Stapleton, 2012, p 170).

**H1: board size has a positive effect on the disclosure of IAS/IFRS information.**

The presence of controlling shareholders or block share ownership not favors disclosure because they have the ability to access internal sources of information. In the presence of a diffuse capital, firms have the tendencies to disclose more information to satisfy the needs of shareholders (Samaha, Dahawy, Hussainey and Stapleton (2012) and Adelopo (2011)).

**H2: the presence of controlling shareholders has a negative effect on the disclosure of IAS/IFRS information.**

Since the tax optimization strategy is the corollary of the earnings management and therefore it has some effect on the quality and quantity of the information disclosed, Aliani and Zarái (2012a) showed that firms' diverse board have minimum effective tax rates compared to homogeneous firms' *board*. Moreover, the presence of independent directors is positively associated with the effective tax rate. Good governance practices encourage tax minimization strategies. Gender diversity positively impacts the effective tax rate (Aliani and Zarái, 2012b). Gender diversity of the board, the duality and the existence of feminine values are significant variables in explaining tax optimization (Aliani, M'hamid and Zarái, 2011). For their part, M'hamid, Hachana and Omri (2011) found that diversity in terms of gender and the presence of outside directors in the board have a positive effect on the performance of Tunisian companies. On the contrary, duality has a negative effect.

**H3: gender diversity has a positive effect on the disclosure of IAS/IFRS information.**

**H4: the duality has a negative effect on the disclosure of IAS/IFRS information.**

Wang and Campbell (2012) considered that an independent board significantly reduces earnings management when state-ownership is not the case. However, conflicting results have been found by Gisbert and Navallas (2013) which showed that independent and qualified professionals improve transparency.

**H5: the presence of independent directors has a positive effect on the disclosure of IAS/IFRS information.**

Eng and Mak (2003) examined the impact of the ownership structure and board composition on voluntary disclosure. They found that larger firms and firms with lower debt have a high level of disclosure. For his part, Ledentu (2008) identified the following external mechanisms: the power of shareholders, the power of stock markets, the power of the creditors and the influence of the legal environment.

**H6: the power of creditors has a negative effect on the disclosure of IAS/IFRS information.**

Zarái and Bettabaï (2007) found that the attributes of the Audit Committee such as independence, orientation, expertise and diligence positively influence earnings quality and the existence of a charter defining the powers and scope of authority of the Audit Committee, attendance at meetings, the size of the committee and the quality of the external audit are positively correlated with the level accounting conservatism. In addition, the independence, experience and education of the members of the audit committee are positively correlated with the adequacy of benefits.

**H7: the attributes of the Audit Committee have a positive effect on the disclosure of IAS/IFRS information.**

Behn, Brian, Carver and Neal (2013) found that firms listed on the NYSE are required to set up a board and an independent audit, nomination and compensation committees. Moreover, these companies are required to develop and implement a governance policy. They consider that all these measures are aimed to better protect investors and enhance the relevance and reliability of financial reporting especially for firms that invest little in governance mechanisms. They developed a new composite measure of the board

structure.

**H8: the attributes of the nomination committee have a positive effect on the disclosure of IAS/IFRS information.**

**H9: the attributes of the Compensation Committee have a positive effect on the disclosure of IAS/IFRS information.**

Governance mechanisms influence the disclosure of IAS/IFRS information, such as the institutional shareholding and foreign representation in the boards (Ebrahim and Abdel Fattah, 2015).

**H10: the presence of foreign members has a positive effect on the disclosure of IAS/IFRS information.**

The effect of governance mechanisms on the disclosure of IAS/IFRS information depends on the national context of the firm. Indeed, both companies have the same characteristics but not in the same country, not disclose the same quantity and the same quality of IAS/IFRS information.

**H11: the nationality of the firm has an effect on the disclosure of IAS/IFRS information.**

### 3. Research Methodology

A regression model by ordinary least square is applied in which the dependent variable is the disclosure of IAS/IFRS information and the independent variables are the governance mechanisms.

For each firm  $i$  of a country  $c$ , we calculate the quantity and quality of information disclosure and then we apply the following regression model:

Disclosure of information $_{ic} = \beta_0 + \beta_1 \text{board size}_{ic} + \beta_2 \text{controlling shareholders}_{ic} + \beta_3 \text{diversity}_{ic} + \beta_4 \text{duality}_{ic} + \beta_5 \text{independent directors}_{ic} + \beta_6 \text{power of creditors}_{ic} + \beta_7 \text{audit committee}_{ic} + \beta_8 \text{nomination committee}_{ic} + \beta_9 \text{compensation committee}_{ic} + \beta_{10} \text{foreign directors}_{ic} + \beta_{11} \text{country}_i + \epsilon_{ic}$

**Table1: Governance mechanisms and the disclosure of information**

<i>Variables</i>	<i>Measures</i>	<i>Predicted Sign</i>
Disclosure score	$\sum_{i=1}^p \frac{I_i}{p}$ Where $I_i$ : item $i$ that has 1 if it is disclosed, 0 otherwise and $p$ : the number of applicable items.	
Board Size	Number of board members	+
Controlling shareholders	1 if block share ownership exists, 0 otherwise	-
Diversity	Proportion of the women in the board	+
Duality	1 if board chair is also chief executor officer	-
Independent directors	Proportion of independent directors in the board	+
Power of creditors	Total debt/total assets	-
Audit, nomination and compensation committees	Number of members + numbers of meetings per year + 1 for the existence of accounting competence, 1 for the existence of financial competence and 1 for the existence of experimented supervisor, 0 otherwise.	+
Foreign members	Proportion of foreign members in the corporate board	+
Country $_i$	1 if the company belongs to the country $i$ , 0 otherwise	+/-

For testing our hypotheses, we proceeded as follows:

- identify the items contained in accounting standards;
- select country and study samples;

- assess the level of disclosure by companies in annual reports;
- explain and interpret the disclosure of information by country;

We have deeply analyzed the annual reports to identify applicable and inapplicable items standard by standard and item by item.

The disclosure index is calculated as follows:

- read in depth the Tunisian accounting standards and international standards;
- identify items of the mandatory disclosure. The list of these items is largely under the title “Disclosures” in each standard;
- read carefully the annual reports and try to identify both the applicable and inapplicable items;
- count the number of applicable items and that of inapplicable items for each category of items; and
- calculate the extent of disclosure index for each category of items using the following formula:  
Total disclosed items/Total of the applicable items.

For Tunisian companies and after reading the texts governing the Tunisian accounting system as well as the general standard and thematic standards, we have been able to identify and present the items whose disclosure is mandatory or voluntary for all companies.

Table 2 summarizes the number of items whose disclosure is mandatory or voluntary for each Tunisian accounting standard.

**Table 2: Number of items of mandatory and voluntary disclosure by Tunisian accounting standards and number of consolidation items**

Standards	Number	Number of items		
		Mandatory disclosure	Voluntary disclosure	Consolidation
General Accounting Standard (Notes to Financial Statements)	NC : 01	11	1	
Equity	NC : 02	11		
Revenues	NC : 03	3		
Inventories	NC : 04	4		
Tangible assets	NC : 05	14		
Intangible assets	NC : 06	5		
Financial instruments	NC : 07	4		
State income and extraordinary items (extraordinary items)	NC : 08	2		
Construction Contracts	NC : 09	3		
Deferred charges	NC : 10	8		
Changes in accounting policies	NC : 11	11		
Government Grants	NC : 12	4		
Borrowing costs	NC : 13	2		
Events after the balance sheet date	NC : 14	10	1	
Transactions in foreign currencies	NC : 15	4		
Expenditure on research and development	NC : 20	5	3	
Consolidated Financial Statements	NC : 35			6
Investments in associates	NC : 36			9
Interests in joint ventures	NC : 37			18
Business Combinations	NC : 38		1	22
Related party transactions	NC : 39	3		
Leases	NC : 41	10		
Decree No. 96-2459 §83			4	
<b>Total items</b>		<b>114</b>	<b>10</b>	<b>55</b>

We referred to the international standards that have been adopted by most countries of the world to calculate disclosure indexes of French and Canadian companies. The calculation of the disclosure index is a difficult task that requires much time and accuracy in the presence of over 40 international accounting standards.

“To identify and list the items subject of the study, we based on the texts of the standards adopted by the regulations of the Commission of European Communities, IFRS disclosure lists published by the two international firms KPMG and PriceWaterhouseCoopers” (Baazaoui, Sahnoun and Zraï, 2015).

Table 3 summarizes the number of items whose disclosure is mandatory or voluntary for each International Accounting Standard.

**Table 3: Number of items of voluntary and mandatory disclosure by IAS/IFRS**

Standards	Number	Number of items	
		Mandatory disclosure	Voluntary disclosure
Presentation of Financial Statements	IAS1	79	3
Inventories	IAS2	8	
Statement of Cash Flows	IAS7	5	4
Accounting Policies, Changes in Accounting Estimates and Errors	IAS8	26	
Events after the Reporting Period	IAS10	5	
Construction Contracts	IAS11	9	
Income Taxes	IAS12	22	1
Property, Plant and Equipment	IAS16	22	4
Leases	IAS17	18	
Revenue	IAS18	4	
Employee Benefits	IAS19	43	
Accounting for Government Grants and Disclosure of Government Assistance	IAS20	3	
The Effects of Changes in Foreign Exchange Rates	IAS21	9	
Borrowing Costs	IAS23	2	
Related Party Disclosures	IAS24	21	
Earnings per Share	IAS33	10	
Impairment of Assets	IAS36	29	1
Provisions, Contingent Liabilities and Contingent Assets	IAS37	18	
Intangible Assets	IAS38	13	2
Investment Property	IAS40	26	2
Agriculture	IAS41	35	
Share-based Payment	IFRS2	11	
Business Combinations	IFRS3	22	
Non-current Assets Held for Sale and Discontinued Operations	IFRS5	11	
Exploration for and Evaluation of Mineral Resources	IFRS6	2	
Financial Instruments: Disclosures	IFRS7	115	
Operating Segments	IFRS8	37	
Disclosure of Interests in Other Entities	IFRS12	73	
Fair Value Measurement	IFRS13	13	
<b>Total items</b>		<b>691</b>	<b>17</b>

We studied the disclosure of information IAS/IFRS whether mandatory disclosure or voluntary disclosure in three countries, France (written law country), Canada (common law country) and Tunisia, which in 1997 adopted an accounting system largely based on the international standards since there are no significant differences between the two Tunisian and international standards.

Our study examined three samples Tunisian, French and Canadian detailed as follows:

52 Tunisian companies, 40 of them listed on the main market and 12 listed on the alternative market, 35 companies listed on French CAC40 after excluding 4 financial institutions and a subsidiary of a non-French parent company, 209 companies listed on French CACsmall after excluding 4 financial institutions, 2



investment companies, 1 subsidiary of a Canadian parent and 9 companies presenting their accounts in a repository other than the IAS/IFRS, 36 Canadian companies listed on ^TX60 after excluding 10 financial institutions, 13 presenting their financial statements under US GAAP and a subsidiary of a non-Canadian parent and 187 small capitalization Canadian firms listed on ^TX20 after excluding 7 financial institutions, 15 investment companies and 14 companies presenting their financial statements according to USGAAP or Canadian GAAP.

**Table 4: Samples of the study**

	Tunisian sample		French sample		Canadian sample		Overall sample
	<i>Main market</i>	<i>Alternative market</i>	<i>CAC40</i>	<i>CACsmall</i>	<i>^TX60</i>	<i>^TX20</i>	
Initial sample	40	12	40	225	60	223	600
Financial Institutions	-		4	4	10	7	25
Investment companies				2		15	17
Subsidiary of foreign parent			1	1	1		3
Companies presenting their financial statements according to US GAAP or national GAAP				9	13	14	36
<b>Subtotal</b>	<b>40</b>	<b>12</b>	<b>35</b>	<b>209</b>	<b>36</b>	<b>187</b>	<b>519</b>
<b>Total</b>	<b>52</b>		<b>244</b>		<b>223</b>		<b>519</b>

#### 4. Results and Discussion

We shall present the characteristics of disclosure indices by standard (dependent variables), the characteristics of quantitative and qualitative independent variables, the correlation matrix of independent variables and determinants of disclosure of IAS/IFRS information whether mandatory or voluntary or elementary (by accounting standard).

##### 4.1 Characteristics of disclosure indices

The disclosure was quantified on a global scale either mandatory or voluntary and at the individual level by accounting standard for the three countries of the study.

**Table5: Characteristics of disclosure indices by accounting standard**

Standard	Tunisian sample		French sample		Canadian sample		Overall sample	
	(N) Mean	Standard deviation	(N) Mean	Standard deviation	(N) Mean	Standard deviation	(N) Mean	Standard deviation
Mandatory disclosure	(52) 0.57	0.11	(244) 0.65	0.96	(223) 0.69	0.08	(519) 0.66	0.66
Voluntary disclosure	(52) 0.01	0.06	(244) 0.30	0.15	(223) 0.37	0.16	(519) 0.30	0.18
Ias1 (nc1)	(52) 0.91	0.17	(244) 0.88	0,03	(223) 0.91	0.02	(519) 0.89	0.06
Ias2 (nc4)	(47) 0.57	0.17	(203) 0.49	0.11	(148) 0.59	0.14	(398) 0.54	0.14
Ias7 (nc8)	(2)1	-	(243) 0.23	0.25	(218) 0.49	0.39	(463) 0.35	0.35
Ias8 (nc11)	(4) 0.81	0.38	(76) 0.60	0.31	(44) 0.70	0.26	(124) 0.65	0.30
Ias10 (nc14)	(45) 0.60	0.30	(241) 0.82	0.25	(221) 0.76	0.21	(507) 0.77	0.25
Ias11 (nc9)	(1) 1	-	(31) 0.59	0.23	(9) 0.77	0.14	(41) 0.62	0.24
Ias12	-	-	(241) 0.56	0.16	(222) 0.73	0.12	(463) 0.64	0.17
Ias16 (nc5)	(50) 0.42	0.15	(244) 0.72	0.09	(220) 0.71	0.07	(514) 0.69	0.12
Ias17 (nc41)	(11) 0.24	0.11	(173) 0.31	0.14	(113) 0.35	0.18	(297) 0.32	0.16
Ias18 (nc3)	(52) 0.57	0.20	(242) 0.55	0.12	(218) 0.59	0.17	(512) 0.57	0.15
Ias19	-	-	(229) 0.60	0.16	(87) 0.86	0.19	(316) 0.67	0.20
Ias20 (nc12)	(14) 0.48	0.37	(113) 0.50	0.32	(48) 0.42	0.42	(175) 0.47	0.35
Ias21 (nc15)	(41) 0.30	0.28	(219) 1	0.04	(220) 1	0	(480) 0.94	0.21
Ias23 (nc13)	(2) -	-	(62) 0.30	0.29	(61) 0.72	0.29	(125) 0.51	0.36
Ias24 (nc39)	(46) 0.89	0.31	(242) 0.71	0.19	(219) 0.55	0.30	(507) 0.66	0.28
Ias33	-	-	(243) 0.77	0.15	(219) 0.77	0.26	(462) 0.77	0.21
Ias36	-	-	(244) 0.63	0.14	(219) 0.47	0.29	(463) 0.56	0.24
Ias37	-	-	(242) 0.50	0.14	(222) 0.50	0.14	(464) 0.50	0.14
Ias38 (nc6)	(50) 0.81	0.28	(244) 0.75	0.09	(175) 0.67	0.09	(469) 0.72	0.13
Ias40	-	-	(22) 0.61	0.24	(5) 0.74	0.07	(27) 0.64	0.22
Ias41	-	-	(4) 0.37	0.41	(1) 1	-	(5) 0.50	0.45
Ifrs2	-	-	(164) 0.66	0.14	(215) 0.77	0.13	(379) 0.72	0.15
Ifrs3 (nc38)	(20)1	-	(217) 0.55	0.14	(157) 0.65	0.18	(394) 0.61	0.18
Ifrs5	-	-	(90) 0.52	0.18	(69) 0.68	0.22	(159) 0.59	0.22
Ifrs6	-	-	(5) 0.60	0.22	(74) 0.99	0.12	(79) 0.96	0.16
Ifrs7 (nc7)	(50) 0.51	0.28	(244) 0.74	0.11	(223) 0.80	0.09	(517) 0.74	0.15
Ifrs8	-	-	(204) 0.64	0.16	(157) 0.58	0.26	(361) 0.61	0.21
Ifrs12	-	-	(229) 0.56	0.13	(168) 0.46	0.40	(397) 0.52	0.28
Ifrs13	-	-	(241) 0.24	0.21	(223) 0.35	0.35	(464) 0.29	0.29
nc2	(52) 0.67	0.29						
nc10	(32) 0.61	0.36						

For most categories of disclosure, we note that Canadian companies' disclosure scores are higher than those of French companies. The mandatory disclosure score largely reflects the compliance by companies with national regulations. The adoption of the international standard by France and Canada do not necessarily worth its implementation in these two countries.

The voluntary disclosure score of Canadian companies (37%) is higher than that of French companies (30%). Just knowing that, the score of the voluntary disclosure was calculated on the basis of standards with items whose disclosure is optional. For example, disclosure of the entity's resources not recognized in the statement of financial position under IAS/IFRS (IAS1§13 and §14) is characteristic of Canadian firms and especially those operating in the oil sector or disclosure of the amounts of unrecognized deferred tax liabilities is usually the task of Canadian firms. However, the French and Canadian companies do not



disclose voluntarily the aggregate amount of cash flows that represent enhancement in production capacity separately from those cash flows that are required to maintain this production capacity. In addition, they don't disclose the book value of temporarily unused fixed assets or the gross carrying amount of any fully depreciated property and equipment that is still in use and the carrying value of fixed assets retirements and not classified as held for sale according to IFRS5 or when the cost model is used, the fair value of property when it differs significantly from the book value.

For thematic standards related to the financial market and the fair value (IAS19, IAS40, IFRS2, IFRS5, IFRS7, IFRS13), Canadian companies have high disclosure scores. On the contrary, for standards relating to regulatory and legal framework (IAS20, IAS 24, IAS37, IFRS8 and IFRS12), French companies have high disclosure scores.

For Tunisia, the overall mandatory disclosure index is 57% which shows that almost half of the applicable items are disclosed by the companies studied.

The list of voluntary information was determined from the conceptual framework (information on projected financial statements, human resources, environmental protection and technology), the general standard (distribution of expenses by destination (NC1)), NC14 (contingencies positive impact), NC20 (research and development) and NC38 (positive effect of the business combination on the assumption of going concern). The items listed are not disclosed by the firms studied. Therefore, the disclosure index is almost zero.

Since the Tunisian standards are strongly inspired by international standards financial accounting, firms were faced situations where there are items required by the technical standards for measurement, presentation and disclosure but these firms can't disclose because the items in question can't be applied due to their nature of operations performed, the sectors in which they operate and the total dichotomy between operations, events and circumstances affected by the items contained in the accounting standards and the reality of operations, events and circumstances experienced by firms.

In this way, we consider it necessary to analyze in depth the annual reports and identify therefore applicable items whose disclosure is mandatory and standard by standard inapplicable items and item by item. The high rates of disclosure of the items contained in the general standard (NC1), the standards for accounting changes (NC11) and related parties (NC39) are primarily due to the low number of items (11 (NC1), 11 (NC11) and 03 (NC39)).

The high extent of disclosure index (81%) of the items contained in the standard for intangible assets (NC6) does not reflect the actual disclosure of the items but the existence of a high number of inapplicable items (almost 7 items inapplicable over 10 items). These items are related to intangible assets under development, improvement as well as spending on research and development. This type of operation is almost absent in the sample firms.

24 companies publishing consolidated financial statements, disclose most items under the standards for consolidation (NC35, NC36, NC37 and NC38). All surveyed companies publish the scope of consolidation, consolidation methods adopted (full consolidation, proportionate consolidation or the equity method) and the process continued in the preparation and presentation of consolidated financial statements.

#### **4.2 Characteristics of the explanatory variables**

Table 6 shows the characteristics of quantitative variables.

**Table 6: Characteristics of quantitative variables**

	<i>Tunisian sample</i>	<i>French sample</i>	<i>Canadian sample</i>	<i>Overall sample</i>
<b>Board size</b>	<b>34</b>	<b>244</b>	<b>223</b>	<b>501</b>
Minimum	3	3	4	3
Maximum	12	19	16	19
Mean	6.38	7.94	8.42	8.05
standard deviation	2.45	3.44	2.46	3.01
<b>Independent directors</b>	<b>0</b>	<b>231</b>	<b>220</b>	<b>451</b>
Minimum		0	0.33	0
Maximum		1	1	1
Mean		0.41	0.75	0.58
standard deviation		0.25	0.13	0.26
<b>Power of creditors</b>	<b>34</b>	<b>243</b>	<b>223</b>	<b>500</b>
Minimum	0.01	0.02	0.02	0.01
Maximum	1.07	10.67	1.79	10.67
Mean	0.49	0.62	0.47	0.54
standard deviation	0.27	0.68	0.24	0.51
<b>Audit committee</b>	<b>0</b>	<b>128</b>	<b>183</b>	<b>311</b>
Minimum		4	8	4
Maximum		19	18	19
Mean		10.47	11.75	11.22
Standard deviation		2.76	1.86	2.36
<b>Nomination committee</b>	<b>0</b>	<b>76</b>	<b>184</b>	<b>260</b>
Minimum		4	6	4
Maximum		22	17	22
Mean		9.88	10.26	10.15
Standard deviation		2.72	2.44	2.53
<b>Compensation committee</b>	<b>0</b>	<b>100</b>	<b>186</b>	<b>286</b>
Minimum		4	6	4
Maximum		22	18	22
Mean		9.38	11.11	10.50
Standard deviation		2.64	2.51	2.68
<b>Diversity</b>	<b>34</b>	<b>242</b>	<b>208</b>	<b>484</b>
Minimum	0	0	0	0
Maximum	0.4	0.75	0.50	0.75
Mean	0.06	0.23	0.11	0.17
Standard deviation	0.11	0.13	0.11	0.14
<b>Foreign members</b>	<b>34</b>	<b>199</b>	<b>16</b>	<b>249</b>
Minimum	0	0	0	0
Maximum	0.40	0.73	0.62	0.73
Mean	0.03	0.08	0.28	0.08
Standard deviation	0.09	0.15	0.20	0.16

The mean of the size of the Canadian companies' board of directors is higher than that of French or Tunisian companies. It is the same for the percentage of independent directors on the board. Creditors' Canadian companies have a less power compared to French companies and Tunisian companies. Scores of audit, nomination and remuneration committees are higher in Canadian companies than among French companies. On the contrary, for Tunisian companies, the data for these committees are not available and therefore we don't know if these companies have such committees or not. High scores of Canadian companies are mainly due to the high number of meetings per year compared to French companies.

The presence of women on the board is higher for French companies compared to Canadian companies.

French companies publish information on the presence of foreign board members opposed to Canadian companies since the last write a lot about diversity in terms of gender, competence, experience, etc.

Table 7 shows the characteristics of qualitative variables.

**Table 7: Characteristics of qualitative variables**

	<i>Tunisian sample</i>	<i>French sample</i>	<i>Canadian sample</i>	<i>Overall sample</i>
<b>listing status<sup>(1)</sup></b>				
Indice1	22 (65%)	35 (14%)	36 (16%)	93(19%)
Indice0	12 (35%)	209 (86%)	187 (84%)	408 (81%)
<b>Total</b>	34(100%)	244 (100%)	223 (100%)	501 (100%)
<b>Duality</b>				
1	18 (69%)	138 (57%)	40 (18%)	196 (39%)
0	16 (31%)	106 (43%)	182 (82%)	304 (61%)
Missing data			1 (0%)	1 (0%)
<b>Total</b>	34 (100%)	244 (100%)	223 (100%)	501 (100%)
<b>Controlling shareholders</b>				
1	34 (100%)	218 (89%)	131 (59%)	383 (76%)
0	0 (0%)	16 (7%)	78 (35%)	94 (19%)
Missing data		10 (4%)	14 (6%)	24 (5%)
<b>Total</b>	34	244	223 (100%)	501 (100%)

(1): indice1: main market (Tunisia), cac40 (France) and ^TX60 (Canada) and indice0: Alternative Market (Tunisia), CACsmall (France) and ^TX20 (Canada).

Companies listed on indice1 represent 19% of the overall sample. Except for Canadian companies, functions of control and management are combined, in most cases, for Tunisian and French companies. The shareholders block exists in the majority of companies studied.

### 4.3 Correlations

**Table 8: Correlations matrix**

	borS	Duality	contS	inddirec	powerC	audC	nomC	comC	diversity	foreM	Tunisia	France	Canada
<b>Tunisian sample</b>													
borS	1												
duality	-0.22	1											
contS			na										
inddirec				na									
powerC	0.20	0.21			1								
audC						na							
nomC							na						
comC								na					
diversity	0.01	-0.15			0.01				1				
foreM	-0.08	-0.00			-0.10				-0.15	1			
<b>French sample</b>													
borS	1												
duality	0.07	1											
contS	-0.23	0.08	1										
inddirec	0.23	-0.05	-0.29	1									
powerC	0.21	0.12	-0.00	-0.06	1								
audC	0.74	0.07	-0.28	0.26	0.24	1							
nomC	0.42	-0.12	-0.44	0.36	-0.01	0.54	1						
comC	0.41	-0.05	-0.49	0.34	-0.03	0.53	0.92	1					
diversity	0.23	0.15	-0.27	0.17	-0.04	0.18	0.05	0.08	1				
foreM	0.28	-0.02	-0.37	0.54	-0.18	0.26	0.15	0.13	0.11	1			
<b>Canadian sample</b>													
borS	1												
duality	0.01	1											
contS	0.10	-0.12	1										
inddirec	-0.70	-0.30	-0.40	1									
powerC	0.50	0.15	0.36	-0.69	1								

audC	0.50	-0.16	0.47	-0.45	0.75	1							
nomC	0.26	0.27	-0.08	0.07	0.29	0.19	1						
comC	0.34	-0.42	-0.19	0.13	0.25	0.45	0.45	1					
diversity	0.25	-0.39	0.23	0.01	0.24	0.41	0.31	0.13	1				
foreM	-0.18	0.17	0.23	0.04	0.01	0.02	-0.11	0.13	-0.25	1			
<b>Overall sample</b>													
borS	1												
duality	0.06	1											
contS	-0.18	0.05	1										
inddirec	0.15	-0.11	-0.31	1									
powerC	0.25	0.14	0.08	-0.15	1								
audC	0.71	0.03	-0.21	0.25	0.26	1							
nomC	0.39	-0.08	-0.38	0.37	0.03	0.51	1						
comC	0.38	-0.15	-0.44	0.39	-0.02	0.53	0.85	1					
diversity	0.21	0.12	-0.15	0.02	0.03	0.13	-0.01	-0.05	1				
foreM	0.21	-0.02	-0.27	0.52	-0.16	0.26	0.15	0.21	-0.03	1			
Tunisia	na	Na	na	na	na	na	na	na	na	na	1		
France	-0.02	0.12	0.11	-0.32	0.10	-0.15	-0.23	-0.34	0.36	-0.27	na	1	
Canada	0.02	-0.12	-0.11	0.32	-0.10	0.15	0.23	0.34	-0.36	0.27	na	-1	1

**Benchmark:**borS: board size, contS: controlling shareholders, inddirec: independent directors, powerC: power of creditors, audC: audit committee, nomC: nomination committee, comC: compensation committee, foreM: foreign members.

The board size is negatively correlated with controlling shareholders for French companies and independent directors for Canadian companies. The larger the size of the board, the more capital is diffused among shareholders for French companies and less presence of independent directors for Canadian companies. It is positively associated with the power of creditors, the diversity, the presence of foreign board members and audit, nomination and remuneration committees for French and Canadian companies and for the full sample. The larger the size of the board, the larger the company is in debt (Power of creditors), the more the board is diverse in gender and nationality, the more the scores of committees are high. It is also positively related to independent directors for French companies.

For Canadian companies, the duality is positively related to the audit committee and negatively to the independent directors, the nomination and compensation committees and diversity.

The controlling shareholders is negatively related to the independent directors, committees, foreign members and diversity for the French and overall sample. It is positively associated with power of creditors, audit committee, diversity and foreign members for Canadian companies.

The presence of independent directors is positively associated with committees, foreign members and the diversity in gender for French and overall sample but is negatively associated with the power of creditors and the audit committee. On a global scale, it is associated positively with Canada and negatively with France.

The power of creditors is positively associated with committees for all samples, and the diversity in the Canadian sample. It is negatively associated with the presence of foreign members for the French sample.

The audit Committee is positively associated with the diversity, the presence of foreign members and other committees for all samples.

The diversity is positively associated with France and negatively with Canada.

#### 4.4 Determinants of the disclosure of IAS/IFRS information

Table 9 shows the results for the 4 sample categories regression models.

#### Table 9: Determinants of disclosure of IAS/IFRS information

Dependent variable	Independent variables			
	Tunisia	France	Canada	Overall sample
<b><u>Mandatory disclosure</u></b>	diversity : -0.40 (0.04), (R <sup>2</sup> =0.13, Adjusted R <sup>2</sup> =0.10, prob(F)=0.04)	audC : 0.00 (0.01) duality : -0.01 (0.48) (R <sup>2</sup> =0.06, Adjusted R <sup>2</sup> =0.05, prob(F)=0.02)	duality: 0.03 (0.02) PowerC : 0.07 (0.00) Diversity: 0.15 (0.00) (R <sup>2</sup> =0.12, Adjusted R <sup>2</sup> =0.11,prob(F)=0.00)	BorS : -0.00 (0.04) AudC : 0.01 (0.01) ForeM : 0.03 (0.36) France: -0.07 (0.00) orCanada : 0.07 (0.00) (R <sup>2</sup> =0.28, Adjusted R <sup>2</sup> =0.26, prob(F)=0.00)
<b><u>Voluntary disclosure</u></b>	borS : 0.01 (0.01), duality : -0.04 (0.11), (R <sup>2</sup> =0.23, Adjusted R <sup>2</sup> =0.18, prob(F)=0.02)	nomC : 0.02 (0.01), foreM : 0.08 (0.33) (R <sup>2</sup> =0.13, Adjusted R <sup>2</sup> =0.11, prob(F)=0.01)	diversity : 0.28 (0.01) duality : 0.05 (0.03) borS : 0.02 (0.00) (R <sup>2</sup> =0.23, Adjusted R <sup>2</sup> =0.22, prob(F)=0.00)	borS : 0.01 (0.00) foreM : 0.10 (0.21) Canada : 0.25 (0.00) (R <sup>2</sup> =0.20, Adjusted R <sup>2</sup> =0.19, prob(F)=0.00)
<b><u>ias1 (nc1)</u></b>	foreM : -0.36 (0.01), diversity : -0.66 (0.10), (R <sup>2</sup> =0.35, Adjusted R <sup>2</sup> =0.23, prob(F)=0.03)	borS : -0.00 (0.00) foreM : 0.02 (0.15) (R <sup>2</sup> =0.04, Adjusted R <sup>2</sup> =0.03, prob(F)=0.01)	comC : 0.00 (0.00) powerC : 0.02 (0.02) duality : 0.00 (0.37) diversity: -0.00 (0.97) (R <sup>2</sup> =0.10, Adjusted R <sup>2</sup> =0.08, prob(F)=0.00)	diversity : -0.03 (0.08) France : -0.03 (0.00) (R <sup>2</sup> =0.12, Adjusted R <sup>2</sup> =0.11, prob(F)=0.00)
<b><u>ias2 (nc4)</u></b>	duality : 0.14 (0.02) diversity : -0.42 (0.14) (R <sup>2</sup> =0.27, Adjusted R <sup>2</sup> =0.22, prob(F)=0.01)	audC : 0.01 (0.00) duality : -0.03 (0.23) (R <sup>2</sup> =0.09, Adjusted R <sup>2</sup> =0.07,prob(F)=0.01)	nomC : 0.01 (0.00) duality : 0.05 (0.10) powerC : -0.08 (0.20) diversity : 0.24 (0.04) (R <sup>2</sup> =0.17, Adjusted R <sup>2</sup> =0.14, prob(F)=0.00)	nomC: 0.01 (0.00) France : -0.05 (0.00) orCanada : 0.05 (0.00) (R <sup>2</sup> =0.13, Adjusted R <sup>2</sup> =0.12, prob(F)=0.00)
<b><u>ias7 (nc8)</u></b>	-	audC : 0.02 (0.03) duality : 0.05 (0.23) contS : -0.12 (0.09) powerC : 0.23 (0.06) foreM : 0.02 (0.86) (R <sup>2</sup> =0.18, Adjusted R <sup>2</sup> =0.14, prob(F)=0.00)	-	audC : 0.01 (0.31) France : -0.20 (0.00) orCanada : 0.20 (0.00) (R <sup>2</sup> =0.09, Adjusted R <sup>2</sup> =0.09, prob(F)=0.00)
<b><u>ias8 (nc11)</u></b>	-	borS : -0.03 (0.01) foreM : -0.31 (0.19) duality : -0.06 (0.42) contS : 0.06 (0.57) (R <sup>2</sup> =0.23, Adjusted R <sup>2</sup> =0.17, prob(F)=0.01)	comC : -0.03 (0.10) diversity : -0.73 (0.10) (R <sup>2</sup> =0.13, Adjusted R <sup>2</sup> =0.08,prob(F)=0.08)	borS : -0.03 (0.00) France : -0.20 (0.23) (R <sup>2</sup> =0.19, Adjusted R <sup>2</sup> =0.16, prob(F)=0.00)
<b><u>Nc10</u></b>	borS : -0.04 (0.11) diversity : -1.11 (0.08) foreM : -1.95 (0.04) (R <sup>2</sup> =0.31, Adjusted R <sup>2</sup> =0.21, prob(F)=0.06)		-	-
<b><u>ias10 (nc14)</u></b>	borS: -0.04 (0.10) diversity : -0.77 (0.16) (R <sup>2</sup> =0.17, Adjusted R <sup>2</sup> =0.10, prob(F)=0.10)	borS : -0.04 (0.00) duality : -0.06 (0.04) contS : 0.20 (0.00) foreM : -0.21 (0.05) (R <sup>2</sup> =0.46, Adjusted R <sup>2</sup> =0.45, prob(F)=0.00)	borS : -0.02 (0.00) duality : -0.07 (0.05) diversity : -0.29 (0.06) (R <sup>2</sup> =0.14, Adjusted R <sup>2</sup> =0.13, prob(F)=0.00)	borS: -0.04 (0.00) inddirec : -0.20 (0.00) foreM : -0.26 (0.00) France : 0.07 (0.21) or Canada : -0.07 (0.21) (R <sup>2</sup> =0.50, Adjusted R <sup>2</sup> =0.49, prob(F)=0.00)
<b><u>ias11 (nc9)</u></b>	-	powerC: 1.12 (0.00) duality: 0.08 (0.32) contS : 0.04 (0.64) (R <sup>2</sup> =0.40, Adjusted R <sup>2</sup> =0.32, prob(F)=0.01)	-	powerC : 0.74 (0.00) France : -0.28 (0.00) or Canada : 0.28 (0.00) (R <sup>2</sup> =0.37, Adjusted R <sup>2</sup> =0.34, prob(F)=0.00)
<b><u>ias12</u></b>	-	borS : 0.01 (0.00) duality : 0.02 (0.40) contS : -0.11 (0.01) foreM : 0.26 (0.00) (R <sup>2</sup> =0.27, Adjusted R <sup>2</sup> =0.25, prob(F)=0.00)	borS : 0.02 (0.00) duality : 0.01 (0.56) diversity : 0.02 (0.82) (R <sup>2</sup> =0.26, Adjusted R <sup>2</sup> =0.24, prob(F)=0.00)	borS : 0.02 (0.00) foreM: 0.28 (0.20) France : -0.24 (0.00) or Canada : 0.24 (0.00) (R <sup>2</sup> =0.43, Adjusted R <sup>2</sup> =0.42, prob(F)=0.00)
<b><u>ias16 (nc5)</u></b>	powerC : -0.16 (0.15) diversity : 0.52 (0.06) (R <sup>2</sup> =0.16, Adjusted R <sup>2</sup> =0.11, prob(F)=0.07)	contS : 0.06 (0.01) foreM : -0.04 (0.42) duality : -0.02 (0.09) borS : -0.01 (0.00) (R <sup>2</sup> =0.16, Adjusted R <sup>2</sup> =0.14, prob(F)=0.00)	-	borS : -0.00 (0.32) France : 0.05 (0.00) (R <sup>2</sup> =0.05, Adjusted R <sup>2</sup> =0.04, prob(F)=0.00)

<u>ias17 (nc41)</u>	-	contS : -0.09 (0.02) (R <sup>2</sup> =0.03, Ajusted R <sup>2</sup> =0.03, prob(F)=0.02)	nomC : 0.02 (0.04) diversity : -0.07 (0.73) powerC : 0.21 (0.02) (R <sup>2</sup> =0.11, Ajusted R <sup>2</sup> =0.08, prob(F)=0.01)	nomC: 0.02 (0.02) powerC : 0.34 (0.00) foreM : 0.12 (0.22) France : -0.06 (0.23)orCanada : 0.06 (0.23) (R <sup>2</sup> =0.22Ajusted R <sup>2</sup> =0.17, prob(F)=0.00)
<u>ias18 (nc3)</u>		borS : 0.02 (0.00) duality : 0.05 (0.00) powerC : -0.00 (0.66) diversity : 0.01 (0.89) (R <sup>2</sup> =0.22, Ajusted R <sup>2</sup> =0.21, prob(F)=0.00)	duality : 0.11 (0.00) nomC : 0.01 (0.02) powerC : -0.07 (0.29) diversity : 0.55 (0.00) (R <sup>2</sup> =0.23, Ajusted R <sup>2</sup> =0.21,prob(F)=0.00)	borS : 0.01 (0.00) contS : -0.06 (0.06) inddirec : -0.00 (0.93) foreM : 0.05 (0.35) France : -0.23 (0.00) orCanada : 0.23 (0.00) (R <sup>2</sup> =0.44, Ajusted R <sup>2</sup> =0.42prob(F)=0.00)
<u>ias19</u>	-	audC : 0.02 (0.00) duality : 0.03 (0.22) (R <sup>2</sup> =0.20, Ajusted R <sup>2</sup> =0.18, prob(F)=0.00)	-	audC : 0.02 (0.00) foreM : 0.11 (0.12) France : -0.16 (0.00)orCanada : 0.16 (0.00) (R <sup>2</sup> =0.36, Ajusted R <sup>2</sup> =0.34prob(F)=0.00)
<u>ias20 (nc12)</u>	-	borS : 0.02 (0.00) duality : -0.12 (0.03) diversity: -0.35 (0.14) powerC : -0.21 (0.17) (R <sup>2</sup> =0.22, Ajusted R <sup>2</sup> =0.19, prob(F)=0.00)	inddirec: -0.86 (0.06) (R <sup>2</sup> =0.08, Ajusted R <sup>2</sup> =0.05, prob(F)=0.06)	borS : -0.03 (0.00) contS: 0.14 (0.05) Canada : 0.05 (0.46) (R <sup>2</sup> =0.13, Ajusted R <sup>2</sup> =0.11, prob(F)=0.00)
<u>ias21 (nc15)</u>	diversity : -0.79 (0.07) (R <sup>2</sup> =0.12, Ajusted R <sup>2</sup> =0.08, prob(F)=0.07)	-	-	-
<u>ias23 (nc13)</u>	-	foreM : 0.69 (0.00) duality : 0.04 (0.56) powerC : 0.10 (0.64) diversity : -0.25 (0.48) (R <sup>2</sup> =0.22, Ajusted R <sup>2</sup> =0.16, prob(F)=0.01)	inddirec : -0.51 (0.09) diversity : 0.66 (0.09) (R <sup>2</sup> =0.08, Ajusted R <sup>2</sup> =0.05, prob(F)=0.09)	France : -0.41 (0.00)orCanada : 0.41 (0.00) (R <sup>2</sup> =0.34, Ajusted R <sup>2</sup> =0.33, prob(F)=0.00)
<u>ias24 (nc39)</u>	-	audC : 0.01 (0.01) duality : 0.02 (0.38) (R <sup>2</sup> =0.06, Ajusted R <sup>2</sup> =0.05, prob(F)=0.02)	audC 0.04 (0.00) (R <sup>2</sup> =0.06,Ajusted R <sup>2</sup> =0.05, prob(F)=0.00)	audC : 0.02 (0.00) contS : 0.04 (0.28) Canada : -0.18 (0.00) or France : 0.18 (0.00) (R <sup>2</sup> =0.14, Ajusted R <sup>2</sup> =0.13, prob(F)=0.00)
<u>ias33</u>	-	contS : -0.11 (0.00) duality : -0.02 (0.28) powerC : 0.01 (0.42) R <sup>2</sup> =0.04, Ajusted R <sup>2</sup> =0.03, prob(F)=0.02)	-	
<u>ias36</u>	-	nomC : 0.01 (0.09) duality : -0.05 (0.10) diversity : 0.24 (0.09) (R <sup>2</sup> =0.10, Ajusted R <sup>2</sup> =0.07, prob(F)=0.05)	nomC: 0.02 (0.05) duality : 0.10 (0.10) contS : -0.05 (0.29) (R <sup>2</sup> =0.28, Ajusted R <sup>2</sup> =0.27, prob(F)=0.00)	nomC : 0.01 (0.01) foreM : 0.00 (0.94) diversity : 0.24 (0.09) France : -0.13 (0.00)or Canada : 0.13 (0.00) (R <sup>2</sup> =0.27, Ajusted R <sup>2</sup> =0.23, prob(F)=0.00)
<u>ias37</u>	-	audC : 0.13 (0.00) duality : 0.01 (0.66) (R <sup>2</sup> =0.11, Ajusted R <sup>2</sup> =0.09, prob(F)=0.00)	borS: 0.03 (0.00) duality : 0.06 (0.01) (R <sup>2</sup> =0.41, Ajusted R <sup>2</sup> =0.40, prob(F)=0.00)	audC : 0.02 (0.00) duality : 0.05 (0.01) (R <sup>2</sup> =0.12, Ajusted R <sup>2</sup> =0.11, prob(F)=0.00)
<u>ias38 (nc6)</u>	borS: 0.02 (0.12) diversity -1.39 (0.00) (R <sup>2</sup> =0.37, Ajusted R <sup>2</sup> =0.33, prob(F)=0.00)	nomC : 0.01 (0.06) (R <sup>2</sup> =0.05, Ajusted R <sup>2</sup> =0.03, prob(F)=0.06)	borS : 0.01 (0.00) duality : 0.06 (0.00) contS : -0.02 (0.17) (R <sup>2</sup> =0.18, Ajusted R <sup>2</sup> =0.16, prob(F)=0.00)	nomC: 0.01 (0.03) foreM : 0.06 (0.20) (R <sup>2</sup> =0.09, Ajusted R <sup>2</sup> =0.07, prob(F)=0.03)
<u>ifrs2</u>	-	duality : -0.05 (0.01) borS : -0.01 (0.03) diversity : -0.11 (0.21) (R <sup>2</sup> =0.08, Ajusted R <sup>2</sup> =0.06, prob(F)=0.00)	duality : -0.04 (0.11) diversity : -0.19 (0.03) (R <sup>2</sup> =0.03, Ajusted R <sup>2</sup> =0.03, prob(F)=0.03)	duality : -0.05 (0.00) inddirec : -0.05 (0.23) France : -0.10 (0.00) or Canada : 0.10 (0.00) (R <sup>2</sup> =0.15, Ajusted R <sup>2</sup> =0.15, prob(F)=0.00)



<i>ifrs3 (nc38)</i>	-	audC : 0.02 (0.00) duality : 0.01 (0.73) (R <sup>2</sup> =0.17, Ajusted R <sup>2</sup> =0.15, prob(F)=0.00)	borS : 0.03 (0.00) duality 0.08 (0.02) contS : -0.03 (0.26) (R <sup>2</sup> =0.28, Ajusted R <sup>2</sup> =0.27,prob(F)=0.00)	audC : 0.02 (0.00) contS : -0.08 (0.02) foreM : 0.00 (0.95) France : -0.22 (0.00) orCanada : 0.22 (0.00) (R <sup>2</sup> =0.48Ajusted R <sup>2</sup> =0.45, prob(F)=0.00)
<i>ifrs5</i>	-	powerC : 0.03 (0.10) (R <sup>2</sup> =0.03, Ajusted R <sup>2</sup> =0.02, prob(F)=0.10)	-	-
<i>ifrs7 (nc7)</i>	diversity : -0.80 (0.08) (R <sup>2</sup> =0.10, Ajusted R <sup>2</sup> =0.07, prob(F)=0.08)	-	borS : 0.01 (0.00) duality : 0.04 (0.01) (R <sup>2</sup> =0.21, Ajusted R <sup>2</sup> =0.20, prob(F)=0.00)	duality : -0.02 (0.36) contS : -0.02 (0.58) foreM : 0.07 (0.27) comC : -2.93 10 <sup>-5</sup> (0.99) Canada : 0.17 (0.00)or France : -0.17 (0.00) (R <sup>2</sup> =0.30, Ajusted R <sup>2</sup> =0.25, prob(F)=0.00)
<i>ifrs8</i>	-	contS : -0.11 (0.01) (R <sup>2</sup> =0.04, Ajusted R <sup>2</sup> =0.03, prob(F)=0.01)	borS : 0.03 (0.00) duality : 0.10 (0.05) (R <sup>2</sup> =0.14, Ajusted R <sup>2</sup> =0.13,prob(F)=0.00)	borS : 0.01 (0.00) France : 0.06 (0.00)or Canada : -0.06 (0.00) (R <sup>2</sup> =0.07, Ajusted R <sup>2</sup> =0.06, prob(F)=0.00)
<i>ifrs12</i>	-	borS : 0.01 (0.00) diversity : 0.15 (0.03) (R <sup>2</sup> =0.10, Ajusted R <sup>2</sup> =0.09, prob(F)=0.00)	nomC : 0.06 (0.00) contS : 0.10 (0.15) (R <sup>2</sup> =0.12, Ajusted R <sup>2</sup> =0.10, prob(F)=0.00)	borS : 0.01 (0.00) contS : -0.11 (0.00) foreM : 0.08 (0.19) France : -0.19 (0.00) or Canada : 0.19 (0.00) (R <sup>2</sup> =0.35, Ajusted R <sup>2</sup> =0.34, prob(F)=0.00)
<i>ifrs13</i>	-	borS : 0.03 (0.00) (R <sup>2</sup> =0.27, Ajusted R <sup>2</sup> =0.27, prob(F)=0.00)	borS : 0.06 (0.00) (R <sup>2</sup> =0.16, Ajusted R <sup>2</sup> =0.16, prob(F)=0.00)	borS : 0.02 (0.00) foreM : 0.39 (0.02) France : -0.37 (0.00) or Canada : 0.37 (0.00) (R <sup>2</sup> =0.51, Ajusted R <sup>2</sup> =0.50, prob(F)=0.00)

**Benchmark:**borS: board size, contS: controlling shareholders, inddirec: independent directors, powerC: power of creditors, audC: audit committee, nomC: nomination committee, comC: compensation committee, foreM: foreign members.

All equations presented in the above table are significant (prob (F) = 0.00). In addition, variables that mandatory disclosure not exhibit significant coefficients are integrated into the equation to improve the ability of other explanatory variables.

Variables are dominant in the explanation of the disclosure of 82 equations presented: the duality is in 37 equations, the size of the board is in 31; the diversity in gender and the presence of foreign board members are in respectively 25 and 23 equations, proxies of France and Canadian nationality are in 20 equations, the presence of controlling shareholders is in 19 equations, the power of creditors is in 15 equations, the audit committee is in 14 equations, the nomination committee is in 12 equations, the presence of independent directors is in 5 equations and the Compensation Committee is in 3 equations.

Table 10 shows the significant independent variables in explaining the disclosure of IAS/IFRS information.

**Table 10: Order of importance of the independent variables**

Independent variable	Dependent Variables (sign)			
	<i>Tunisian sample</i>	<i>France sample</i>	<i>Canadian sample</i>	<i>Overall sample</i>

<b>Duality</b>	voluntary disclosure (-), ias2(+)	mandatory disclosure (-), ias2(-), ias7(+), ias8(-), ias10(-), ias11(+), ias12(+), ias16(-), ias18(+), ias19(+), ias20(-), ias23(+), ias24(+), ias33(-), ias36 (-), ias37 (+), ifrs2(-), ifrs3 (+)	mandatory disclosure (+), voluntary disclosure (+), ias1 (+), ias2 (+), ias10 (-), ias12 (+), ias18 (+), ias36 (+), ias37 (+), ias38 (+), ifrs2 (-), ifrs3 (+), ifrs7 (+), ifrs8 (+)	ias37 (+), ifrs2 (-), ifrs7 (-)
<b>Subtotal</b>	<b>1(+)</b> + <b>1(-)</b> = <b>2</b>	<b>9(+)</b> + <b>9(-)</b> = <b>18</b>	<b>12 (+)</b> + <b>2(-)</b> = <b>14</b>	<b>1(+)</b> + <b>2(-)</b> = <b>3</b>
<b>Total</b>	<b>23(+)</b> + <b>14(-)</b> = <b>37</b>			
<b>Board size</b>	voluntary disclosure (+), nc10 (-), nc14 (-), nc6 (+)	ias8 (-), ias10 (-), ias12 (+), ias16 (-), ias18 (+), ias20 (+), ifrs2 (-), ifrs12 (+), ifrs13 (+)	voluntary disclosure (+), ias1 (-), ias10 (-), ias12 (+), ias37 (+), ias38 (+), ifrs3 (+), ifrs7 (+), ifrs8 (+), ifrs13 (+)	mandatory disclosure (-), voluntary disclosure (+), ias8 (-), ias10 (-), ias12 (+), ias16 (-), ias18 (+), ias20 (-), ifrs8 (+), ifrs12 (+), ifrs13 (+)
<b>subtotal</b>	<b>2 (+)</b> + <b>2 (-)</b> = <b>4</b>	<b>5(+)</b> + <b>4(-)</b> = <b>9</b>	<b>8 (+)</b> + <b>2 (-)</b> = <b>10</b>	<b>6 (+)</b> + <b>5 (-)</b> = <b>11</b>
<b>Total</b>	<b>21 (+)</b> + <b>13 (-)</b> = <b>34</b>			
<b>Diversity</b>	mandatory disclosure (- , nc1 (-), nc4 (-), nc10 (-), nc14 (-), nc5 (-), nc15 (-), nc6 (-), nc7 (+)	ias20 (-), ias18 (+), ias23 (-), ias36 (+), ifrs2 (-), ifrs12 (+)	mandatory disclosure (+), voluntary disclosure (+), ias1 (-), ias2 (+), ias8 (-), ias10 (-), ias12 (+), ias17 (-), ias18 (+), ias23 (+), ifrs2 (-)	ias1 (-), ias36 (+)
<b>Subtotal</b>	<b>1 (+)</b> + <b>8 (-)</b> = <b>9</b>	<b>3 (+)</b> + <b>3 (-)</b> = <b>6</b>	<b>6 (+)</b> + <b>5 (-)</b> = <b>11</b>	<b>1 (+)</b> + <b>1 (-)</b> = <b>2</b>
<b>Total</b>	<b>11 (+)</b> + <b>17 (-)</b> = <b>28</b>			
<b>Foreign members</b>	nc (-), nc10 (-)	ias7 (+), ias8 (-), ias10 (-), ias12 (+), ias16 (-), ias23 (+)	voluntary disclosure (+), ias1 (+)	mandatory disclosure (+), voluntary disclosure (+), ias10 (-), ias12 (+), ias17 (+), ias18 (+), ias19 (+), ias36 (+), ias38 (+), ifrs3 (+), ifrs7 (+), ifrs12 (+), ifrs13 (+)
<b>Subtotal</b>	<b>2 (-)</b>	<b>3 (+)</b> + <b>3 (-)</b> = <b>6</b>	<b>2 (+)</b>	<b>12 (+)</b> + <b>1(-)</b> = <b>13</b>
<b>Total</b>	<b>17 (+)</b> + <b>6 (-)</b> = <b>23</b>			
<b>France</b>				mandatory disclosure (-), ias1 (-), ias2 (-), ias7 (-), ias8 (-), ias10 (+), ias11 (- , ias12 (-), ias16 (+), ias17 (-), ias18 (-), ias19 (-), ias23 (-), ias24 (+), ias36 (-), ifrs2 (-), ifrs3 (- , ifrs7 (-), ifrs8 (+), ifrs12 (-), ifrs13 (-)
<b>Total</b>	<b>4 (+)</b> + <b>17 (-)</b> = <b>21</b>			

<b>Canada</b>				mandatory disclosure (+), voluntary disclosure (+), ias2 (+), ias7 (+), ias10 (-), ias11 (+), ias12 (+), ias17 (+), ias18 (+), ias19 (+), ias20 (+), ias23 (+), ias24 (-), ias36 (+), ifrs2 (+), ifrs3 (+), ifrs7 (+), ifrs8 (-), ifrs12 (+), ifrs13 (+)
<b>Total</b>	<b>17 (+) + 3 (-) = 20</b>			
<b>Controlling shareholders</b>		ias7 (-), ias8 (+), ias10 (+), ias11 (+), ias12 (-), ias16 (+), ias17 (-), ias33 (-), ifrs8 (-)	ias36 (-), ias38 (-), ifrs3 (-), ifrs12 (+)	ias18 (-), ias20 (+), ias24 (+), ifrs3 (-), ifrs7 (-), ifrs12 (-)
<b>subtotal</b>		<b>4 (+) + 5 (-) = 9</b>	<b>1 (+) + 3 (-) = 4</b>	<b>2(+) + 4 (-) = 6</b>
<b>Total</b>	<b>7 (+) + 12 (-) = 19</b>			
<b>Power of creditors</b>	nc (-)	ias7 (+), ias11 (+), ias18 (-), ias20 (-), ias23 (+), ias33 (+), ifrs5 (+)	mandatory disclosure (+), ias1 (+), ias2 (-), ias17 (+), ias18 (-)	ias11 (+), ias17 (+)
<b>Subtotal</b>	<b>1 (-)</b>	<b>5 (+) + 2 (-) = 7</b>	<b>3 (+) + 2 (-) = 5</b>	<b>2(+)</b>
<b>Total</b>	<b>10 (+) + 5 (-) = 15</b>			
<b>Audit committee</b>		mandatory disclosure (+), ias2 (+), ias7 (+), ias19 (+), ias24 (+), ias37 (+), ifrs3 (+)	ias24 (+)	mandatory disclosure (+), ias7 (+), ias19 (+), ias24 (+), ias37 (+), ifrs3 (+)
<b>Subtotal</b>		<b>7 (+)</b>	<b>1 (+)</b>	<b>6 (+)</b>
<b>Total</b>	<b>14 (+)</b>			
<b>Nomination committee</b>		ias36 (+), ias38 (+)	voluntary disclosure (+), ias2 (+), ias17 (+), ias18 (+), ias36 (+), ifrs12 (+)	ias2 (+), ias17 (+), ias36 (+), ias38 (+)
<b>Subtotal</b>		<b>2 (+)</b>	<b>6 (+)</b>	<b>4 (+)</b>
<b>Total</b>	<b>12 (+)</b>			
<b>Independent directors</b>			ias20 (-), ias23 (-)	ias10 (-), ias18 (-), ifrs2 (-)
<b>Subtotal</b>			<b>2 (-)</b>	<b>3 (-)</b>
<b>Total</b>	<b>5 (-)</b>			
<b>Compensation committee</b>			ias1 (+), ias8 (-)	ifrs7 (-)
<b>Subtotal</b>			<b>1 (+) + 1 (-) = 2</b>	<b>1 (-)</b>
<b>Total</b>	<b>1 (+) + 2(-) = 3</b>			

The duality is the dominant variable in the explanation of the disclosure of IAS/IFRS information followed by the board size, the diversity in gender, the presence of foreign members, proxies of nationality France and Canada, the presence of controlling shareholders, the power of creditors, the audit committee, the nomination committee, the proportion of independent directors and the Compensation Committee.

For Canadian companies, all governance mechanisms, except for the presence of the controlling shareholders and the proportion of independent directors, present many positive signs in relations with other countries. These mechanisms positively affect the disclosure of IAS/IFRS information.

For French companies, the positive effect of governance mechanisms on disclosure of IAS/IFRS information is dominant. We have 38 positive and 26 negative signs of the coefficients of governance

variables.

For Tunisian companies, the effect of the duality and the board size on the disclosure of IAS/IFRS information is mixed. On the contrary, the effect of diversity, proportion of foreign members in the board and the power of creditors on the disclosure of IAS/IFRS information is negative.

The proxy of nationality France has many negative signs (17 (-) against 4 (+)) and positively affects the disclosure of the items contained in ias10, ias16, ifrs8 and ifrs12.

The proxy of nationality Canada has many positive signs (17 (+) against 3 (-)) and negatively affects the disclosure of the items contained in ias10, ias24 and ifrs8.

The diversity, the presence of the controlling shareholders, the proportion of independent directors on the board and the compensation Committee have a number of negative signs than there are positive signs.

**Table 11: Result of tested hypotheses**

Hypothesis	Sign	Result
<b>H1:</b> the board size has a positive effect on the disclosure of IAS/IFRS information.	+	confirmed
<b>H2:</b> the presence of controlling shareholders has a negative effect on the disclosure of IAS/IFRS information.	-	confirmed
<b>H3:</b> gender diversity has a positive effect on the disclosure of IAS/IFRS information.	+	infirm
<b>H4:</b> the duality has a negative effect on the disclosure of IAS/IFRS information.	-	infirm
<b>H5:</b> the presence of independent directors has a positive effect on the disclosure of IAS/IFRS information.	+	infirm
<b>H6:</b> the power of creditors has a negative effect on the disclosure of IAS/IFRS information.	-	infirm
<b>H7:</b> attributes of the Audit Committee have a positive effect on the disclosure of IAS/IFRS information.	+	confirmed
<b>H8:</b> attributes of the nomination committee have a positive effect on the disclosure of IAS/IFRS information.	+	confirmed
<b>H9:</b> attributes of the Compensation Committee have a positive effect on the disclosure of IAS/IFRS information.	+	infirm
<b>H10:</b> the presence of foreign members has a positive effect on the disclosure of IAS/IFRS information.	+	confirmed
<b>H11:</b> the nationality of the firm has an effect on the disclosure of IAS/IFRS information.	+/-	confirmed

All independent variables have an effect on the disclosure of IAS/IFRS information. When the direction of the sign of the effect is mostly positive, the direction is marked (+). For the variable country, the meaning of the sign varies by country. Therefore, there is no strong sense.

## 5. Conclusion

We studied the effect of governance mechanisms on the disclosure of IAS/IFRS information. The disclosure may be mandatory, voluntary or elementary (disclosure of the items contained in each standard). The dependent variable can be mandatory disclosure, voluntary disclosure or disclosure of individual items contained in the accounting standards. The independent variables are the board size, the duality, the presence of the controlling shareholders, the presence of independent directors, the power of creditors, audit,

nomination and compensation committees, the diversity in gender, the presence of foreign members in the board and the nationality of the firm (country). We have integrated a variable linked to the national context to demonstrate that governance mechanisms alone can't explain the disclosure of IAS/IFRS information but there is an external environmental factor may explain the information disclosure.

We found that mandatory, voluntary or elementary disclosure is affected by the governance mechanisms. The majority of dependent variables are influenced by governance mechanisms but don't have the same importance. These mechanisms are ranked in order of importance as follows: duality, board size, diversity in gender, the presence of foreign board members, the nationality of the firm, the presence of the controlling shareholders, the power of creditors, audit and nomination committees, the proportion of independent directors and the compensation committee.

Our results also showed that the determinants of the disclosure of (IAS/IFRS) information vary depending on the nationality of the firm and also showed the importance of the nationality of the firm in explaining information published since the proxy country has significant coefficients. In addition, for Canada, the proxy country in the majority of retained regression equations has a positive sign in explaining the disclosed items

This study suffers from some limitations. First, the governance mechanisms can't explain all of the variance in disclosure of (IAS/IFRS) information since  $R^2$  has not exceeded 51%. Then, there may exist governance mechanisms that we could not get to identify. Finally, the measures adopted governance mechanisms may not be the best.

Given these limitations, future research avenues can be opened on the identification of new governance mechanisms and the building of new measures of governance mechanisms.

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