Are governance practices associated with good results?

The case of Colombia

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SUMMARY:

Since 2007 Colombian listed firms, non-financial and financial, are required to disclose their compliance to a governance country code. The compliance is interpreted as the level of governance and used as independent variable for regressions looking for the determinants of performance and dividends. The results mostly confirm a positive association of governance with performance, and a U-shaped effect of governance on dividend payout. The effect of governance is higher for non-financial firms and for large non-financial firms.

Keywords: Corporate governance, performance, dividends

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1. Introduction

Regulatory boards and practitioners both recommend high corporate governance standards. The rationality of this guideline is rooted on the agency theory. Agents of any kind committed to extract less private benefits (given their higher levels of governance), increase the availability of funding to the firm, reducing its cost of capital and monitoring costs. Decreasing private benefits and monitoring costs indirectly increases performance. A long list of literature has tested this claim, with mixing results (See section 3). Here I perform a test in the same vein. Using data from Colombian listed firms and their associated governance scores, I assembled a database to perform a series of regressions intended to uncover if there is any relationship between firms results and decisions on one side and, on the other hand, governance levels.

The results show a positive association between governance and results; and, ceteris paribus, that dividends payout goes down as governance scores goes up, until an inflection point, where further increments of governance are associated with increments in the percentage of dividends being paid out. Large non-financial firms have more positive effects of code compliance than small firms.

The rest of the paper is organized as follows: 2) the governance requirements of Colombian listed firms, 3) a brief review or related studies, 4) a description of the Colombian code, 5) the database, 6) the econometric setting and regressions, and 7) the conclusion.

2. Governance requirements for Colombian listed firms

The earliest governance code or guideline is the British Cadbury report, which was issued in 1992 as a result of high profile corporate scandals in the United Kingdom, attributed mostly to deficient governance practices; since then many countries, multilateral institutions and even trade associations have produced their own. As of 2012 the European Corporate Governance Institute lists more than 350 documents from 91 countries and 6 other institutions related to governance codes and guidelines, issued since 1992. The standard practice now is that exchanges and regulators recommend certain governance practices and firms have to produce annual written reports answering how close they adhere to the desired practices, in a method known as "comply or explain". Following its own share of corporate scandals and bankruptcies the US congress approved the Sarbanes-Oxley act of 2002 raising the exigencies and creating new duties for the boards and the auditing practices. Laws with the same purpose have also been approved by Japan (2005), Germany (2002), France (2003), Italy (2005), Australia (2003), India (2000), and Colombia (2005) among others.

Regarding governance guidelines and following the international trend, the Colombian Association of Chambers of Commerce (Confecámaras) sponsored the discussion and issuing of the first Colombian guidelines in 2001. The Colombian regulator, Superintendencia de Valores (today Superintendencia Financiera), required, also in 2001, that all firms with listed securities and that intended to receive funds from pension funds produced a Governance Code. In 2005, the Congress enacted the Law of the Securities Market. The law introduced compulsory norms regarding board of directors' structure and shareholder agreements. The board related norms included: 1) A board size between 5 and

10 members; 2) At least 25% of independent board members and the conditions to be met by those members, 3) The ban of CEO-Chairman duality, and 4) The obligation by the board to consider proposals backed by at least the 5% of shareholders.

Finally, in 2007 the Superintendencia adopted a Country Governance Code and demanded that issuers answered a Governance Survey about their compliance of the guidelines included in the Code, under the methodology of comply or explain (why they choose do not meet or apply what the Code demands).

3. Some Studies about governance and performance

Since the beginning of the movement towards stricter levels of governance, researchers have tried to find an association between the levels of governance and any kind of performance. One of the first studies was a report by Credit Lyonnais Securities Asia (CLSA)[1] who in 2001 calculated an index of corporate governance for 495 firms across 25 emerging markets and 18 sectors, the statistics of the report showed that firms ranked high in the corporate governance index had better performance and higher stock returns than companies with lower levels of governance. Klapper and Love (2004) used the rankings from CLSA and showed that corporate governance provisions were lower in countries with weak legal environments, nevertheless in these countries it mattered the most. Since those pioneering studies different tests have been performed. Some researchers built their governance index, while others retort to measurements resulting from the scores the firms get from the adherence to a particular code. In the US, Brown and Caylor (2006) built their own governance index and found that firms with higher scores were more profitable, more

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[1] Credit Lyonnais Securities Asia, report titled "Saints and Sinners: Who's got religion", April 2001.

valuable and paid more dividends. Similar results for Venezuelan firms and a governance index built by the authors were obtained by Garay et al. (2006). Padgett and Shabbir (2005) study the code compliance for listed U.K. firms and find that higher levels of compliance with governance guidelines produce higher total shareholder returns. Djodat (2008) report a higher return on equity for firms disclosing more governance practices in Brasil, Russia, India, China and Korea.

Pombo and Gutierrez (2007) applied a survey to 43 Colombian listed firms, following the CLSA methodology, but they did not look for an association between the index and firm performance; however, they reported that a higher scoring in the corporate governance index is associated with the existence of an issued governance code by the firm, as was required by the Colombian law at that time. Langebaek and Ortiz (2007) do not find any association between governance and Tobin's q for Colombian firms. Benavides and Mongrut (2010), using the exogenous shock of the code requirement by the government (2001), report that return on assets improves in excess of 1% and an increment in leverage after the code issuance.

4. The Colombian country code

The Colombian code was intended to be a guideline for all firms with listed securities, shares and bonds, in the Colombian exchange. It includes 4 areas: 1) Shareholders' general assembly, 2) Board of directors, 3) Information disclosure, and 4) Controversy resolution. Each area includes a set of recommendations (best practices). For the general meeting section there are 11 recommended measures covering the convocation and celebration of the assembly, the approval of relevant operations (by the assembly), and rights and

equitable treatment of all shareholders. For the board of directors section there are 15 measures covering the size, structure and operation of the board, rights and duties of the directors, and functions of the board. For the information disclosure section there are 13 measures covering the request of information by shareholders, information for the market, and the external auditing function.[2] For the controversy resolution section there are 2 measures about how the organization chooses the method of resolution and how the shareholders are informed.

Each year firms are required to answer a survey specifying how close they adhere to the recommended measures. The results are available since 2007. A measure is considered implemented if all questions associated to a particular measure are affirmatively responded; partially implemented if at least one, but not all, of the questions is negatively responded; and non-implemented if all the questions are negatively responded. A particular question can be excluded depending of the nature of the issuer. If all questions related to a particular measure are excluded, that measure is also excluded.

I implement a very simple measure of compliance: given the 41 measures, a point is awarded if all the questions from a particular measure are answered affirmatively; half a point is awarded if the measure is partially implemented; no points are awarded if the questions are negatively answered or are excluded. The sum of points is divided by 41; the denominator is the whole number of measures, regardless of whether for a particular firm one or more measures are excluded. Thus, the code compliance score goes from 0 to 1, being 1 the highest level of governance.

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[2] In Colombia the external auditing function is regulated by law. The auditor has the duty of certifying the procedures used in the construction of the financial statements. His signed statement should include a paragraph asserting that the results truly reflex show the firm operations.
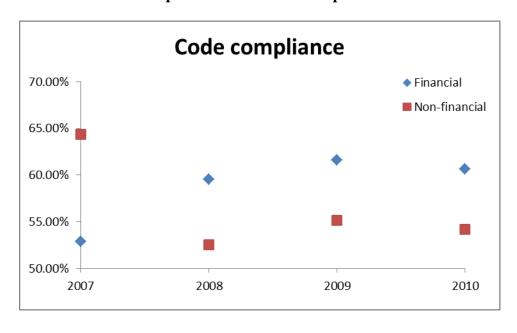
The table 1 reports the statistics for the calculated compliance. The non-financial sector reports a distinctively higher compliance for 2007, as the graphic 1 shows; nevertheless, I chose to keep those data in order to preserve the spirit of the tests. Financial firms, after 2007, show higher levels of compliance then non-financial firms.

Table 1: Statistics of code compliance (governance)

Sector	Year	Obs	Mean	Std. Dev.	Min	Max
Financial	2007	48	0.529	0.157	0.098	0.902
	2008	48	0.595	0.157	0.293	0.890
	2009	49	0.616	0.168	0.244	0.902
	2010	42	0.607	0.163	0.195	0.866
Non-financial	2007	98	0.643	0.068	0.476	0.915
	2008	97	0.525	0.154	0.183	0.927
	2009	96	0.551	0.149	0.159	0.902
	2010	87	0.542	0.144	0.159	0.878

Source: Superintendencia financiera and own calculations

Graphic 1: Evolution of compliance

5 The database

I study 155 firms, financial (50) and nonfinancial (105), issuers listed at the Colombian Stock Exchange (BVC) between 2007 and 2010 with 545 firm-year observations. The source is the Superintendencia Financiera, the Colombian regulator, Reuters and Economatica. The sample is subsequently reduced to the 105 non-financial firms with 365 firm-year observations, and, for the final regressions, to 35 non-financial firms with 121 firm-year observations and dividend information.

Statistics for the financial information are reported in table 2. I observe differences between the profitability of the non-financial firms and the financial firms, while the return on assets of the first ones is 4.4% the number for the second ones is 2.2%; however, the numbers are reversed for the return on equity with the financial firms having the edge with an 11%, while their counterparts just show a very conservative 5.4%. Obviously the difference is the different nature of the business, and the low leverage of nonfinancial firms which is a characteristic of the Colombian firms[3].

Governance is code compliance (see previous section); plant capacity is the percentage of the plant capacity used for the reported year; cash flow on assets is the operating cash flow divided by assets. For the tangibility of assets the ratio of property, plant and equipment (PPE) on assets for the non-financial firms is used, as a corresponding variable for the financial firms the ratio of credits on assets is calculated. The definition of the other variables is evident.

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[3] Céspedes, Gonzalez, and Molina (2008)

Dummies identifying financial firms (Df) and large non-financial firms (Dlr) are also defined (See table 2). Interaction variables among the dummies, the code compliance (governance) and control variables are used in the regressions.

The correlations for the variables are shown in the table 3. For the overall sample the highest correlation for the governance variable is with size (Ln(Assets) or Ln(Revenues)). For the non-financial sample apart from the high correlation with size, it is interesting to note that governance is negatively related with plant capacity, showing the far reaching effects that governance can have.

Table 2: Database statistics and auxiliary variables

Variable	Nonfinancial firms			Financial firms		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Ebit/Revenue	376	0.175	0.513	187	0.089	0.202
Net Income/Revenue	376	0.146	0.495	187	0.081	0.160
Net Income/Assets	376	0.044	0.083	187	0.022	0.052
Net Income/Equity	376	0.054	0.273	187	0.110	0.168
Governance	376	0.565	0.140	187	0.586	0.164
Ln(Assets)	376	12.623	1.924	187	14.077	2.009
Cashflow/Assets	338	7.284	24.387	-		
Debt/(Debt+Equity)	376	0.211	0.196	-		
Liabilities/Assets	376	0.333	0.229	187	0.796	0.197
Employees/Assets	339	0.157	1.324	-		
Plant Capacity	339	54.593	43.469	-		
% Alien shareholders	376	0.110	0.246	-		
PPE/Assets, Credits/Assets	376	0.204	0.183	187	0.617	0.283
Dividends/Net Income	128	0.677	1.886	-		
Dividends/Assets	130	0.027	0.028	-		

Dummies	
Financial firm (Df)	1 if financial, 0 otherwise
Large nonfinancial firm (Dlr)	1 if Ln(Assets)≥Avg(Assetsnf) and firm is non-financial,
	0 if Ln(Assets)≤Avg(Assetsnf) and firm is non-financial,
	Non defined otherwise (financial)
Interaction variables	
Df . CVj	Financial firm and control variables
Dlr . CVj	Large non-financial firm and control variables
CC . CVj	Code compliance and control variables
Df . CC . CVj	Financial firm, code compliance and control variables
Control variables (CVj)	For j:1 to 3. Size, Leverage and Tangibles (non financial)

Table 3: Correlations

a. Overall sample

Overall	Ebit/Revenue		Net Income/Revenue		Net Income/Assets		Net Income/Equity		Governance		Ln(Assets)		Ln(Tot. Revenue)	
Net Income/Revenue	0.78	***												
Net Income/Assets	0.23	***	0.43	***										
Net Income/Equity	0.06		0.12	***	0.59	***								
Governance	0.19	***	0.19	***	- 0.00		- 0.09	*						
Ln(Assets)	0.14	***	0.12	***	- 0.17	***	0.10	**	0.35	***				
Ln(Tot. Revenue)	- 0.07		- 0.12	***	- 0.02		0.20	***	0.26	***	0.87	***		
Liabilities/Assets	- 0.37	***	- 0.51	***	- 0.39	***	0.28	***	- 0.03		0.34	***	0.36	***

Table 3: Correlations

b. Non-financial sample

Non-financial

	Ebit/Revenue		Net Income/Revenue		Net Income/Assets		Net Income/Equity		Governance		Ln(Assets)	
Net Income/Revenue	0.90	***										
Net Income/Assets	0.25	***	0.39	***								
Net Income/Equity	0.13	**	0.19	***	0.59	***						
Governance	0.20	***	0.17	***	0.06		- 0.03					
Ln(Assets)	0.22	***	0.20	***	0.14	***	0.09	*	0.38	***		
Ln(Tot. Revenue)	0.12	**	0.13	**	0.15	***	0.07		0.23	***	0.85	***
Liabilities/Assets	- 0.14	***	- 0.19	***	- 0.19	***	- 0.12	**	- 0.06		0.03	
Employees/Assets	- 0.03		- 0.02		- 0.02		0.01		- 0.04		- 0.12	**
Plant Capacity	- 0.15	***	- 0.12	**	- 0.05		0.02		- 0.21	***	- 0.18	***
Foreign Own./Tot. Own.	- 0.13	**	- 0.14	***	- 0.10	*	- 0.01		- 0.09	*	0.17	***
PPE/Assets	- 0.18	***	- 0.17	***	- 0.04		0.01		- 0.04		- 0.03	
Dividends/NI	- 0.23	**	- 0.12		- 0.16	*	- 0.16	*	- 0.00		0.04	
Dividends/Assets	0.14		0.12		0.64	***	0.58	***	- 0.14		- 0.24	***

Non-financial

	Ln(Tot. Revenue)		Liabilities/Assets		Employees/Assets		Plant Capacity		Foreign Own./Tot. Own.		PPE/Assets		Dividends/NI
Liabilities/Assets	0.35	***											
Employees/Assets	- 0.11	**	- 0.00										
Plant Capacity	- 0.02		- 0.03		0.06								
Foreign Own./Tot. Own.	0.25	***	0.21	***	- 0.01		0.11	**					
PPE/Assets	0.11	**	0.15	***	0.05		0.23	***	0.14	***			
Dividends/NI	- 0.06		0.12		0.02		- 0.12		0.08		- 0.05		
Dividends/Assets	- 0.19	**	- 0.12		- 0.11		- 0.16	*	- 0.12		- 0.02		0.08

6   The econometric setting and regressions

The regressions are performed using a generalized least squares method with coefficients corrected for heterorescedastic panels with and uncorrelated error structure and AR1 autocorrelation structure for time.

This work attempts to test different hypothesis regarding the relationship of governance levels with performance and firm financial decisions. The first (H_1) is the expected positive association between governance and performance. Additionally, a difference between the effect of governance of non-financial and financial firms is also expected ($H_{1,1}$); given that financial firms are closely followed by the regulator and disclose information on a more frequent basis, the effect of governance levels should be lower for this type of firms. Through the interaction variables a subsequent hypothesis is tested: Does governance influence the way size and leverage affect performance ($H_{1,2}$)? Finally, I hypothesize that the effect of governance compliance should be more acute for large non-financial firms ($H_{1,3}$).

A second hypothesis posits that higher dividend payouts should be associated with higher governance compliance (H_2). The alternative hypothesis is that dividends are negatively associated with governance (H_{2a}), the rationale for this hypothesis is that given that better governed firms are more profitable, lower levels of payouts are enough to keep shareholders happy. The tests include a squared term to test for a possible nonlinear association.

Hypothesis H_1

Table 4 reports regressions where performance variables are regressed on code compliance, size, and leverage. The equation is:

$$\text{Performance}_{it} = a_0 + a_1.CC_{it} + a_2.\text{Ln(Assets)}_{it} + a_2.L/A_{it} + e_{it}$$

The dependent variables are operational margin, sales margin, return on assets and return on equity, all of them different measures of accounting performance. The independent variables are: 1) Code compliance (CC), with an hypothesized positive coefficient, and 2) Control variables which are known having an effect on performance, such size and leverage.

The results support the main hypothesis H_1 except for the return on equity coefficient; the interpretation being that for the heavily ownership concentrated Colombian firms, higher levels of governance imply that sizable benefits are going to different stakeholders (as is confirmed by the positive effect of governance on return on assets), reducing the amount left for the stockholders.

Table 5 reports regressions where performance variables are regressed on code compliance, size, and leverage and some interaction variables. The equation is:

$$\text{Performance}_{it} = a_0 + a_{0,f}D_f + (a_1 + a_{1,f}D_f).CC_{it} + (a_2 + a_{2,f}D_f).\text{Ln(Assets)}_{it} + (a_3 + a_{3,f}D_f).L/A_{it} + e_{it}$$

The additional independent variables are: 1) Financial firm dummy (D_f), and 2) the interactions among D_f and the other primary independent variables.

The Hypothesis $H_{1,1}$ is confirmed by the negative and significant coefficient that accompanies the interaction variable Gov-Fin in 3 of the 4 regressions. Interestingly the

remaining interaction variables are mostly negative, implying that the effects of size and leverage are smaller for non-financial firms than for financial firms.

Panel A in table 6 reports the regressions where performance variables are regressed on code compliance, size, and leverage and some interaction variables. The equation is:

$$\text{Performance}_{it} = a_0 + a_{0,f}D_f + (a_1 + a_{1,f}D_f + (a_2 + a_{2,f}D_f).\text{Ln}(\text{Assets})_{it}).CC_{it} + a_3.L/A_{it} + e_{it}$$

The additional independent variables are: 1) Financial firm dummy (D_f), and 2) the interactions among D_f, Code compliance (CC) and size.

Panel b in table 6 shows the results of the interactions and the relevant partial derivatives evaluated at the minimum, average and maximum value of the remaining variable. All tests of the relevant coefficients are significant (Not shown).

The Hypothesis $H_{1,2}$ is confirmed in the following way. For non-financial firms the overall effect of governance is positive for the average and large size firm (see partial derivatives for non-financial firms); however, the effect turns to be negative if the firm is small. For financial firms the results are less clear, for profitability margins and return on equity the positive effect of governance for the smallest financial firm change to a negative one for larger firms; the opposite happens when performance is measured as return on equity. Turning to the effect of size on performance, when interactions with the type of firm and governance are considered, I observe that just when governance is very low the effect of size can be negative, this is true for both type of firms.

The final test reinforces the differences in governance impact depending on the size of the firm. Panel A in table 6 reports regressions where performance variables are regressed on code compliance, size, and financial leverage, tangibles, and some interaction variables. The equation is:

$$Performance_{it} = a_0 + a_{0,lf}D_{lf} + (a_1 + a_{1,lf}D_{lf}).CC_{it} + a_3.Ln(Assets)_{it} + a_4.D/(D+E)_{it} +$$

$$a_4.PPE/A_{it} + e_{it}$$

The additional independent variables are: 1) large non-financial firm dummy (D_{lf}), which takes the value of 1if $Ln(Assets)_{it} > Avg(Ln(Assets))$ and 0 otherwise; 2) financial leverage ($D/(D+E)$) the ratio of debt to debt plus equity; 3) the percentage of tangible assets (PPE/A) the ratio of property, plant and equipment to total assets; and 4) the interaction among D_{lf} and Code compliance (CC).

Panel b in table 6 reports the result of the interaction for the intercept and governance.

The Hypothesis $H_{1,3}$ is confirmed by the positive and significant coefficient that accompanies the interaction variable Largef-Gov in all regressions. All tests of the relevant coefficients are significant (Not shown). The coefficient of governance is positive and significant for the profitability margin measures, but not significant for the return on assets and return on equity. Once the dummy and the interaction are included, the effect of governance for small firms is mostly negative for all measures of performance.

Hypothesis H_2

The second purpose of this study is to asses if the levels of governance are associated with the payout policy. Brown and Caylor (2006) find that in 2002 US firms with higher levels of governance were more valuable and paid out more dividends.

Table 7 reports regressions for non-financial firms where two alternative definitions of dividend payout are regressed on: code compliance (and its square), profitability, market power, size, and leverage. The equation is:

$$\text{Payout}_{it} = a_0 + a_1.\text{CC}_{it} + a_2.\text{CC}^2_{it} + a_3.\text{Performance} + a_4.\text{Market power} + a_5.\text{Size}_{it} + a_6.\text{L/A}_{it}$$

$$+ \Sigma \, a_j.\text{CV}_{jit} + e_{it}$$

The dependent variable is dividends on net income or dividends on assets, both alternative measures of payout. The independent variables are: 1) Code compliance (CC), and 2) Control variables which are known having an effect on payout such as performance (net income on assets or net income on equity), market power (Ebit/NI), size (Ln(Revenue)), and leverage (liabilities on assets). Additional control variables, available just to non-financial firms, are related to use of plant capacity, foreign ownership, operating cash flow, and number of employees.

The hypotheses H_2 and H_{2a} are partially confirmed by the results. What emerges from the tests is a U-shaped association between dividend payout and governance, stronger for the standard payout measure. Increments of governance levels go with lower levels of payout until an inflection point, around 0.63, where further increments of governance are associated with higher levels of dividend payouts. The positive influence of governance is felt when governance levels are sufficiently high. Regarding the additional control variables, it is not surprising that the use of plant capacity is negatively related to dividends: firms working closer to their installed capacity should require more money to fund capital expenditures in order to be able of increasing their production volume, thus reducing their payout policy. In panel B the percentage of foreign owners goes with a positive and significant coefficient , the implication is that foreign owners demand more dividends than their local counterparts, in a result that can be related with the distance between managers and shareholders. Foreign shareholders considering their investment in Colombian firms as a portfolio investment, in opposition to their Colombian counterparts which are closer to

the firm and subject to more influence by management, demand and get higher payout policies.

Table 4: Accounting performance and governance

The dependent variables are operational margin, sales margin, return on assets and return on equity. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation and an AR1 autocorrelation correction. The panel consists of public Colombina firms and it covers four years (2007-2010).

Dep. Variable	Ebit/ Revenue	NI/ Revenue	NI/ Assets	NI/ Equity
Governance	0.0905***	0.0294*	0.00578**	-0.0374***
	(0.014)	(0.018)	(0.002)	(0.014)
Ln(Assets)	0.0440***	0.0389***	0.00277***	0.0101***
	(0.003)	(0.003)	(0.000)	(0.002)
Liabilities/Assets	-0.230***	-0.242***	-0.0698***	0.0382***
	(0.012)	(0.019)	(0.003)	(0.011)
Constant	-0.401***	-0.299***	0.0304***	-0.0494***
	(0.027)	(0.034)	(0.004)	(0.019)
Observations	545	545	545	545
Number of conf	155	155	155	155
W-test	554.2	246	722.7	109
Prob>chi2	0	0	0	0
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

Table 5: Accounting performance and governance, interactions for financial firms

The dependent variables are operational margin, sales margin, return on assets and return on equity. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation and an AR1 autocorrelation correction. D-Financial is dummy that takes the value of 1, if the firm is financial, Gov-Fin, Ln(A)-Fin and L/A-Fin are interaction variables of Governance, Ln(Assets) and Liabilities/Assets and with D-Financial. The panel consists of public Colombian firms and it covers four years (2007-2010).

Dep. Variable	Ebit/ Revenue	NI/ Revenue	NI/ Assets	NI/ Equity
Governance	0.134***	0.0625**	-0.000108	-0.00699
	(0.022)	(0.024)	(0.007)	(0.012)
Ln(Assets)	0.0480***	0.0423***	0.00599***	0.00639***
	(0.004)	(0.004)	(0.001)	(0.001)
Liabilities/Assets	-0.205***	-0.284***	-0.0555***	0.0258**
	(0.020)	(0.025)	(0.005)	(0.012)
D-Financial	0.538***	0.438***	0.107***	-0.0252
	(0.087)	(0.071)	(0.016)	(0.058)
Gov-Fin	-0.181***	-0.0801**	-0.00422	-0.177***
	(0.047)	(0.040)	(0.008)	(0.044)
Ln(A)-Fin	-0.0291***	-0.0245***	-0.00374***	0.0173***
	(0.007)	(0.005)	(0.001)	(0.004)
L/A-Fin	-0.0574	-0.000303	-0.0683***	-0.106**
	(0.074)	(0.054)	(0.015)	(0.054)
Constant	-0.474***	-0.353***	-0.0151	-0.021
	(0.050)	(0.051)	(0.010)	(0.019)
Observations	545	545	545	545
Number of conf	155	155	155	155
W-test	337	300.3	799.5	222.2
Prob>chi2	0	0	0	0
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

Table 6: Accounting performance and governance, interactions

Panel A: Regressions

The dependent variables are operational margin, sales margin, return on assets and return on equity. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation and an AR1 autocorrelation correction. D-Financial is dummy that takes the value of 1, if the firm is financial, Gov-Fin, and Ln(A)-Fin are interaction variables of Governance, and Ln(Assets) with D-Financial. The panel consists of public Colombian firms and it covers four years (2007-2010).

Dep. Variable	Ebit/ Revenue	NI/ Revenue	NI/ Assets	NI/ Equity
Governance	-0.752***	-1.977***	-0.192**	-0.480***
	(0.268)	(0.266)	(0.077)	(0.127)
Ln(Assets)	0.00188	-0.0640***	-0.00332	-0.0185***
	(0.014)	(0.014)	(0.004)	(0.006)
Liabilities/Assets	-0.210***	-0.267***	-0.0667***	-0.00986
	(0.016)	(0.019)	(0.007)	(0.013)
D-Financial	-0.497**	-1.255***	-0.01	-0.555***
	(0.230)	(0.201)	(0.053)	(0.201)
Gov-Fin	1.479***	2.649***	0.145*	0.764**
	(0.363)	(0.327)	(0.086)	(0.340)
Ln(A)-Fin	0.0473***	0.111***	0.00193	0.0514***
	(0.018)	(0.016)	(0.004)	(0.014)
Gov-Ln(A)	0.0732***	0.169***	0.0155***	0.0409***
	(0.023)	(0.022)	(0.006)	(0.010)
Gov-Ln(A)-Fin	-0.126***	-0.218***	-0.0120*	-0.0668***
	(0.028)	(0.026)	(0.006)	(0.023)
Constant	0.0789	0.911***	0.102**	0.272***
	(0.160)	(0.165)	(0.047)	(0.079)
Observations	545	545	545	545
Number of conf	155	155	155	155
W-test	391.6	349.8	297	197.7
Prob>chi2	0	0	0	0
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

Table 6: Accounting performance and governance, interactions

Panel B: Average coefficients
The numbers are the coefficient reported in Panel A, plus the results of the interaction terms. The partial derivatives are evaluated at the mean values of the remaining variables.

	Non-financial	Ebit/ Revenue	NI/ Revenue	NI/ Assets	NI/ Equity
	Constant	0.079	0.911	0.102	0.272
	Governance	-0.752	-1.977	-0.192	-0.480
	Gov-Ln(A)	0.073	0.169	0.016	0.041
	Ln(Assets)	0.002	-0.064	-0.003	-0.019
	Financial				
	Constant-Fin	-0.418	-0.344	0.092	-0.283
	Gov-Fin	0.727	0.672	-0.047	0.284
	Gov-Ln(A)-Fin	-0.053	-0.049	0.004	-0.026
	Ln(A)-Fin	0.049	0.047	-0.001	0.033
	Both				
	Liabilities/Assets	-0.210	-0.267	-0.067	-0.010
Min	$dPerf_{n\text{-}fin}/dGov$	-0.248	-0.814	-0.085	-0.198
Avg	$dPerf_{n\text{-}fin}/dGov$	0.172	0.156	0.004	0.036
Max	$dPerf_{n\text{-}fin}/dGov$	0.472	0.848	0.067	0.204
Min	$dPerf_{fin}/dGov$	0.357	0.328	-0.022	0.102
Avg	$dPerf_{fin}/dGov$	-0.016	-0.018	0.002	-0.081
Max	$dPerf_{fin}/dGov$	-0.208	-0.195	0.015	-0.174
Min	$dPerf_{n\text{-}fin}/dSize$	0.013	-0.037	-0.001	-0.012
Avg	$dPerf_{n\text{-}fin}/dSize$	0.043	0.032	0.005	0.005
Max	$dPerf_{n\text{-}fin}/dSize$	0.070	0.093	0.011	0.019
Min	$dPerf_{fin}/dSize$	0.044	0.042	-0.001	0.030
Avg	$dPerf_{fin}/dSize$	0.018	0.018	0.001	0.018
Max	$dPerf_{fin}/dSize$	0.002	0.003	0.002	0.010

Table 6: Accounting performance and governance, the effect of size on non-financial firms

The dependent variables are operational margin, sales margin, return on assets and return on equity. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation and an AR1 autocorrelation correction. D-large firm is a dummy that takes the value of 1, if Ln(Assets) is greater than the average. Largef-Gov is an interaction variable that multiplies Largef and Governance. The panel consists of public Colombian firms and it covers four years (2007-2010). Panel A reports the regressions. Panel B reports the results of interactions for large firms.

Panel A								
Dep. Variable	Ebit/Revenue		NI/Revenue		NI/Assets		NI/Equity	
Governance	0.141***	0.036	0.374***	-0.113***	0.00217	-0.0506***	-0.00194	-0.0921***
	(0.030)	(0.030)	(0.037)	(0.039)	(0.009)	(0.015)	(0.013)	(0.023)
Ln(Assets)	0.0518***	0.0664***	0.0599***	0.0487***	0.00436***	0.00643***	0.00787***	0.0120***
	(0.004)	(0.008)	(0.004)	(0.007)	(0.001)	(0.002)	(0.002)	(0.003)
Debt/(Debt+Equity)	-0.121***	-0.0894***	-0.349***	-0.225***	-0.0611***	-0.0553***	-0.0430***	-0.0295**
	(0.023)	(0.020)	(0.023)	(0.026)	(0.010)	(0.009)	(0.011)	(0.015)
PPE/Assets	-0.213***	-0.257***	-0.375***	-0.0949**	0.0176	0.0237**	0.0196	0.027
	(0.042)	(0.040)	(0.028)	(0.040)	(0.011)	(0.010)	(0.018)	(0.018)
D-large firm		-0.232***		-0.455***		-0.0732***		-0.134***
		(0.042)		(0.077)		(0.014)		(0.022)
Largef-Gov		0.320***		0.822***		0.108***		0.197***
		(0.065)		(0.126)		(0.024)		(0.038)
Constant	-0.533***	-0.629***	-0.637***	-0.370***	-0.00707	-0.00258	-0.0319	-0.0311
	(0.050)	(0.091)	(0.036)	(0.073)	(0.015)	(0.022)	(0.022)	(0.033)
Observations	365	365	365	365	365	365	365	365
Number of conf	105	105	105	105	105	105	105	105
W-test	201	217.4	746.4	300	54.05	75.01	52.17	62.45
Prob>chi2	0	0	0	0	0	0	0	0
Standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								
Panel B								
Large Firms	Ebit/Revenue		NI/Revenue		NI/Assets		NI/Equity	
Constant		-0.861		-0.825		-0.07578		-0.1651
Governance		**0.356**		**0.709**		**0.0574**		**0.1049**

Table 7: Payoff policy and governance, the effect of size on non-financial firms

The dependent variables are dividends on net income and dividends on assets. The table reports the results of GLS panel regressions corrected for a heteroskedastic error structure with no cross-sectional correlation and an AR1 autocorrelation correction. The panel consists of public Colombian firms and it covers four years (2007-2010). Panel A reports the regressions for dividends on net income and the inflection point for governance. Panel B does the same for dividends on assets.

Panel A				
Dep. Variable	Payoff: Dividends/NI			
Governance	-2.380***	-1.902***	-1.913***	-1.851***
	(0.437)	(0.498)	(0.560)	(0.552)
Governance Squared	1.917***	1.500***	1.498***	1.425***
	(0.389)	(0.440)	(0.537)	(0.537)
NI/Assets	-1.318***		-1.533***	
	(0.329)		(0.434)	
NI/Equity		-1.325***		-1.368***
		(0.192)		(0.309)
NI/Tot.Revenue	-0.128*	-0.0879	-0.225*	-0.220**
	(0.078)	(0.091)	(0.124)	(0.107)
Ln(Tot.Revenue)	-0.0768***	-0.0547***	-0.0708***	-0.0619***
	(0.017)	(0.014)	(0.024)	(0.021)
Liabilities/Assets	0.416***	0.471***	0.333**	0.484***
	(0.103)	(0.118)	(0.155)	(0.130)
Plant Capacity			-0.00180*	-0.00190**
			(0.001)	(0.001)
Foreign Own./Total Onwership			-0.000653	-0.0126
			(0.195)	(0.180)
Cash flow/Assets			0.000745	0.000758
			(0.001)	(0.001)
Employees/Assets			0.212	0.108
			(0.214)	(0.204)
Constant	2.147***	1.767***	2.069***	1.951***
	(0.255)	(0.235)	(0.320)	(0.288)
Observations	121	121	115	115
Number of conf	35	35	34	34
W-test	120.7	161.1	82.85	109.7
Prob>chi2	0	0	0	0
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				
Inflection point for governance	0.62	0.63	0.64	0.65

Table 7: continuation

Panel B				
Dep. Variable	Payoff: Dividends/Assets			
Governance	-0.0604	-0.0849***	-0.0757*	-0.0768*
	(0.045)	(0.031)	(0.042)	(0.045)
Governance Squared	0.0459	0.0699**	0.0585	0.0609
	(0.041)	(0.029)	(0.038)	(0.040)
NI/Assets	0.179***		0.240***	
	(0.027)		(0.030)	
NI/Equity		0.0720***		0.168***
		(0.018)		(0.024)
NI/Tot.Revenue	-0.0114**	-0.00896	-0.0258***	-0.0190**
	(0.006)	(0.006)	(0.009)	(0.009)
Ln(Tot.Revenue)	-0.00394***	-0.00365***	-0.00356***	-0.00418***
	(0.001)	(0.001)	(0.001)	(0.001)
Liabilities/Assets	-0.000665	-0.00729	-0.00237	-0.0216**
	(0.008)	(0.010)	(0.010)	(0.011)
Plant Capacity			-0.000192***	-0.000142**
			(0.000)	(0.000)
Foreign Own./Total Onwership			0.0117**	0.0140**
			(0.005)	(0.005)
Cash flow/Assets			0.0000364	0.0000519
			(0.000)	(0.000)
Employees/Assets			-0.0127	-0.00244
			(0.009)	(0.010)
Constant	0.0860***	0.0921***	0.0964***	0.103***
	(0.018)	(0.017)	(0.018)	(0.019)
Observations	121	121	115	115
Number of conf	35	35	34	34
W-test	77.49	31.43	112.3	91.19
Prob>chi2	0	0	0	0
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				
Inflection point for governance	0.66	0.61	0.65	0.63

7 Conclusions

This article joins to a growing trend of research that explores the links between performance and firm financial decisions with the levels of governance. Using an obligatory survey regarding how close the governance practices of a listed firm adheres to the recommended practices; a measure of code compliance was developed and assumed as the firm level of governance. The results showed a mostly significant association of governance levels with performance. The first tests showed a positive association of governance with profitability, without breaking down the different nature of the firms disclosing their levels of governance code adherence. Once more structured tests are performed a complex picture unveils: there is a stronger association of governance and performance in the non-financial firms. When interactions are considered a very interesting result emerges: governance levels by themselves are negatively associated with performance for non-financial firms; however the situation reverses if the firm is financial. The positive effect of governance for non-financial firms goes mainly through the interaction with size, while the corresponding association for financial firms is negative. Size turns to be a very important variable affecting the association of governance with performance. The subject is further explored by dividing the sample of non-financial firms in large (above the average size) and small, the results confirm the previous ones, firm size magnifies the effect of governance. Finally, it is also reported that the relationship between the dividend policy and governance is U-shaped; the positive effects of better governance practices are only there to reap when governance levels are sufficiently high.

Taken together both results provide a strong argument for the benefits of higher levels of governance.

References

Benavides, J. and **Mongrut, S.** (2010), Governance codes: facts or fictions? A study of governance codes in Colombia. *Estudios Gerenciales*, 26(117), 85-102

Klapper, L. and **Love, I.** (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, 10(5), 703-728.

Brown, L. and **Caylor, M**. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25(4), 409–434.

Garay, U., **González, G.**, **González, M.** and **Hernández, Y.** (2006). Índice de buen gobierno corporativo y desempeño financiero en la Bolsa de Valores de Caracas. *Estudio IESA*, 24.

Padgett, C. and **Shabbir, A.** (2005). *The UK code of corporate governance: Link between compliance and firm performance* (ICMA Centre, University of Reading, discussion papers in finance DP2005-17).

Djodat, N. (2008). *Corporate governance disclosure in emerging markets* (Munich Business School working paper 2008-02).

Pombo, C. and **Gutierrez, L.** (2007). *Corporate governance and firm valuation in Colombia* (RES working papers No. 4470).

Langebaek, A. and **Ortiz, J.** (2007). Q de Tobin y gobierno corporativo de las empresas listadas en bolsa. *Borradores de Economía, Banco de la República de Colombia*, 447.