Does country-level governance influence auditing and financial reporting standards? Evidence from a cross-country analysis

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This article highlights the influence of country-level governance on auditing and financial reporting standards. We have used the governance indicators developed by World Bank as proxies for country-level governance. Using a cross-sectional sample of 396 years observations covering 132 countries over 2009–2011, the article provides empirical evidence that good governance has a significant effect on the strength of auditing and reporting standards (SARS). The findings suggest that government effectiveness, regulatory quality and rule of law are highly significant factors for SARS. The aim is to emphasize the need for accounting and audit scholars to be sensitive to the complex of determinant factors on SARS, and their potential impact on standards-setting process. This article also proposes a cross-country empirical analysis in order to further investigate the effects of legal environment factors on auditing and reporting standards.

Keywords: Auditing and financial reporting standards, country-level governance, cross-country analysis.

THIS article aims to explore an insufficiently developed issue in the literature on whether the country-level governance increases or decreases the strength of auditing and reporting standards (SARS). As some academics[1,2] point out, the process of implementing and applying worldwide the international auditing standards (ISAs) and International Financial Reporting Standards (IFRS) is far from being uniform due to various factors such as political, legislative, cultural, economic and educational. At the same time, the adoption of IFRS by over a 100 countries since 2004 (and with more countries planning to do so in future), has been globally recognized as 'a major development for accounting regulation throughout the world'[3]. The recent global trend in favour of using IFRS may suggest the efforts made by policy makers 'to reduce information asymmetries for international investors'[4].

It is generally accepted that the knowledge of mechanisms which influence the politics concerning standards setting and applying them is still only rudimentary[5], while some[6] acknowledge the significant gap between the rhetoric and practice in the global understanding of the politics that determines the accounting and financial reporting standards-setting process.

Based on the available literature and results of the comparative empirical international accounting and audit research that highlights the idea of the relationships between the quality of the regulatory framework and SARS, the present study investigates whether country-level governance captured by governance indicators developed by the World Bank[7] affects SARS (as it is measured by the World Economic Forum). Also, additional analyses, including robustness tests are performed along with other variables related to governance in order to check the accuracy and stability of the results.

The article also provides new extensions of certain lines of research in the literature. It adds to a growing body of accounting and audit research documenting that the legal framework, regulatory quality and effectiveness of government are some of the factors effecting SARS worldwide. Also, with the increasing interest in the literature for using cross-country data, the empirical evidence provided by this article contributes to the understanding of the relevance of governance and legal framework for the auditing and accounting standards.

Background literature and hypothesis development

The available literature stresses on the idea of positive connections between governance and various business and economic development outcomes. A previous study[8] argued that the impact of governance on the economic and business environment is proved by starting from the premise that an economy with a moderate level of

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bureaucracy, a high concern for law compliance and control of corruption is expected to create and develop a business environment favourable to economic performance. Also, it has been stated[9] that a good country-level governance should lead to a transparent economic and business environment, being at the same time a promoter of free market policies, justice and rule of law. It is widely accepted that the effects of good governance are felt by the business and economic environment, because a strong national governance should imply fair regulatory frameworks, accountability and transparent policy-making, all these proxies being significant for the country-level economic activity. Therefore, a good governance framework should be able to provide a good predictability of economic interactions among various players within the economic environment.

Arguing for a full understanding of accounting relationship to the macro political and legal framework, Arnold[5] states that there are some gaps between accounting research and practice, since 'mainstream accounting research has not developed the theoretical capability to analyze and interpret the relationship between accounting and the macro political and economic environment in which it operates'. Based on state theory, in the context of capitalist societies, the relevance of analysing the role that accounting plays in the interaction between macro political, legal framework and market economies has been argued[10,11].

In this context, a major question still needs relevant answers: what is the impact of the quality of country-level governance on SARS? It has been admitted[5] that further research is needed to examine how accounting and financial reporting rules are influenced by macro political and legal framework proxies. This need is particularly felt in the context of the major function of accounting to provide transparency to the markets. It has been stated that financial reporting and auditing fulfil a 'quasi-regulatory role'[5], which is derived from their social responsibility to provide reasonable assurance that relevant and reliable information is disclosed to the investors.

The relationship between the quality of country-level governance and audit and financial reporting requirements is highly debated[12], because governance has a significant impact on the information environment of a country. Therefore, good governance should generate an increasing demand for high-quality information in a country. High-quality information within the economic environment is provided by high-quality audits. Some researchers suggest[12] that governance quality plays a vital role in financial reporting and audit quality, because 'countries with high-quality governments are more likely to strongly enforce accounting standards'.

The context and challenges generated by implementing and applying the financial reporting and auditing standards have been widely explored in the literature, but few studies address the effect of the quality of governance on SARS. A general consensus seems to be that the rise and implementation of both ISA and IFRS vary from one country to another. This has influenced specialists from different interdisciplinary accounting areas to look for potential explanations of this problematic process[1,2,13–19]. Even more, as some scholars admit[1], the research interest for determinant factors for audit and financial reporting standardization goes beyond the accounting literature to the wider areas of social and political sciences in order to understand how global economic governance could influence the accounting and auditing standards-setting processes[1,20,21].

An empirical study[22] was developed in order to explore the influence of various determinant factors on SARS in European countries, providing empirical evidence that judicial independence, efficiency of the legal framework, ethical behaviour of firms, efficiency of corporate boards and characteristics of financial market are the determinants for SARS.

The influence of the rule of law and regulation was also highlighted by some authors[23], who analysed three important regulatory developments in 2009 for accounting systems by private entities in Europe. Using the case of Germany, Hellmann et al.[2] suggested that the accounting system and practices, including the successful adoption of financial reporting standards (IFRS) are strongly influenced by social, political and economic environment proxies.

By investigating the main obstacles to global financial reporting at a high level of quality, and discussing two relevant issues such as comparability and convergence, a detailed analysis was made by Zeff[15], on the impact of politics on the accounting standards-setting process. The author concluded that more rigorous enforcement mechanisms are needed for the national accounting standards in order to strengthen the effort to ensure compliance with IFRS. The findings by Zeff[15] are consistent with the results of Xiao et al.[17] who suggest that strong political influence, along with the proxies of a weak equity market 'have strongly influenced the nature of the accounting system in a developing economy'. These findings[17] reinforced previous results[19] and extended the conclusions by Nobes[24].

The present article proposes the following research hypothesis: There is a positive association between country-level governance quality and SARS.

Research methodology and sample

Houqe et al.[12] argue that a good government is vital for creating demands for high-quality auditing. Agreeing with Houqe et al.[12], we argue that a good government is also vital for improving SARS. For measuring the quality of governance, we have used the governance dimensions developed by Kaufmann et al.[7]. Therefore, the first

Table 1. Description of variables and data sources

Variable	Source	Measure
Strength of auditing and reporting standards (SARS)	World Competitiveness Report[30] for: • 2012–2013 • 2011–2012 • 2010–2011	1, Extremely weak; 7, extremely strong (2011–12 weighted average) (2010–11 weighted average) (2009–10 weighted average)
Voice and accountability (Gov_VA) Political stability and absence of violence (Gov_PS) Government effectiveness (Gov_GE) Regulatory quality (Gov_RQ) Rule of law (Gov_RL) Control of corruption (Gov_CC)	The Worldwide governance indicators[31] (WGI) project 1996–2011 (data used for 2009–2011)	Ranges from approximately – 2.5 (weak) to 2.5 (strong) governance performances

dataset used was given by a report issued by the World Bank – The Worldwide Governance Indicators.

The second dataset used was the ranking assigned to the assessment of financial auditing and reporting standards regarding company financial performance from the Global Competitiveness Report issued by the World Economic Forum. The variable used in this article is given by the SARS, which is a component of the first pillar presented in the report. The data sources for all variables used and their description are summarized in Table 1.

Given all these datasets, the final data sample includes 132 countries for which all the variables were available during 2009–2011, following a final sample of 396 observations. The research methodology used the panel least squares (PLS) with SARS as endogenous variable. The other variables capturing the dimensions of country-level governance for the sampled countries are considered exogenous.

Empirical results

Main analysis

To investigate the impact of country-level governance on SARS, the following regression model for panel data was developed:

$$SARS_{i,t} = \beta_0 + \beta_1 Gov\_VA_{i,t} + \beta_2 Gov\_PS_{i,t}$$
$$+ \beta_3 Gov\_GE_{i,t} + \beta_4 Gov\_RQ_{i,t} + \beta_5 Gov\_RL_{i,t}$$
$$+ \beta_6 Gov\_CC_{i,t} + \varepsilon_{i,t}, \qquad (1)$$

where SARS, Gov_VA, Gov_PS, Gov_GE, Gov_RQ, Gov_RL, Gov_CC are variables defined in Table 1, ε is the error term, i the country and t represents the time. The sign and significance of $\beta_{i,t}$ are of interest, because the premise of the study is that all $\beta_{i,t}$ coefficients are expected to be positive, reflecting the positive association between SARS and the characteristics of country-level governance. The PLS method employed here measures the variation of SARS for the period 2009–2011 determined by country-level governance dimensions. The estimated panel results for the relationship between SARS and country-level governance dimensions are given in Table 2.

The estimated results for country-level governance dimensions on SARS indicate a positive and significant impact for three of the six governance proxies considered. The computed coefficients for Gov_GE (P-value < 0.01), Gov_RQ and Gov_RL (P-value < 0.05) are positive and significant, supporting the hypothesis that a higher ranking for Gov_GE, Gov_RQ and Gov_RL corresponds to a higher ranking for SARS. A one standard-deviation increase in Gov_GE, Gov_RQ and Gov_RL increases SARS by 0.586 points, 0.399 points and 0.596 points respectively. The adjusted R^2 of the model is 96%, which shows that the variance of the endogenous variable (SARS) is explained in proportion of 96% by the exogenous variables considered in the regression model. The statistic F test reveals that the regression equation is highly significant with an $F = 71.53$, which means that it is unlikely that the regressions results are determined by a sampling bias. Also, the Durbin–Watson statistic that tests the autocorrelation in the residuals from the panel regression analysis has a value of 2.16, which means that there is no autocorrelation in the regressed sample.

These findings provide empirical evidence which supports the hypothesis that SARS is strongly influenced by some of the country-level governance proxies such as government effectiveness (consistent with previous results[12,17,19,25]); regulatory quality and rule of law (this finding is in line with previous studies[2,12,26,27]).

Robustness checks

In order to ensure the accuracy and stability of the empirical results, we performed two robustness checks (Table 3). For the first case, we used other variables to measure the impact of certain governance dimensions on SARS. Considering the results of the main analysis presented above, for the robustness test we selected alternative

Table 2. SARS and country-level governance dimensions: linear relationship

Variable	Coefficient	Standard error	t-Statistic	P-value
Constant	4.427	0.038	115.01	0.000
Gov_VA	0.232	0.192	1.206	0.228
Gov_PS	0.009	0.081	0.116	0.907
Gov_GE	0.586	0.175	3.348	0.000
Gov_RQ	0.399	0.181	2.199	0.028
Gov_RL	0.596	0.243	2.451	0.014
Gov_CC	−0.272	0.160	−1.703	0.089

Effects specification
Cross-section fixed (dummy variables)

Adjusted R^2	0.960	SD dependent variable	0.817
SE of regression	0.161	Akaike info criterion	−0.534
Sum squared residuals	6.766	Schwarz criterion	0.852
Log likelihood	243.8	Hannan–Quinn criterion	0.015
F-statistic	71.53	Durbin–Watson statistic test	2.166
Prob (F-statistic)	0.000		

Dependent variable: SARS; Method, PLS; Sample, 2009–2011; Cross-sections included, 132; Total panel (balanced) observations, 396. Source: Author's computations using Eviews 7.0 software.

Table 3. Data sources and description of variables used in robustness checks

Variable	Source	Measures and definitions
Judicial independence (JI)	World competitiveness report for:	1, A judiciary system heavily influenced;
Efficiency of legal framework	• 2012–2013 (2011–2012 weighted average)	7, A judiciary system entirely independent
in challenging regulations (ELF)	• 2011–2012 (2010–2011 weighted average)	1, Extremely inefficient; 7, Highly efficient
	• 2010–2011 (2009–2010 weighted average)	
Strength of investor protection (SIP)		Strength of investor protection index on a 0–10 (best) scale
Protection of minority interest (PMI)		1, Interests of minority shareholders not protected;
		7, Interests of minority shareholders fully protected.
Legal origin (LO)	La Porta *et al.*[27–29]	The legal origin of the Company Law/Commercial Code of each country;
		(1) English Common Law;
		(2) French Commercial Code;
		(3) German Commercial Code;
		(4) Scandinavian Commercial Code; and
		(5) Socialist/Communists laws.

proxies for government effectiveness and quality of regulatory environment. In order to analyse the impact of legal environment on SARS, two other country-level variables, judicial independence and efficiency of legal framework, have been used by researchers[16,22]. We have also used these variables in the additional analysis.

Consistent with previous results[18] which suggest that 'higher quality accounting standards and the compliance with them though higher quality auditing are more likely to exist in countries with strong investor protection', two more proxies were added in order to perform the robustness checks – strength of investor protection and protection of minority interest. These two variables were also used by Booklay[22] to analyse their influence on SARS in Europe. Considering the previous results[12,19,25,27–29] that connect the legal system with the strength of investor protection, a last proxy concerning the type of legal system was also included in the additional analysis.

The estimated panel results for the relationship between SARS and variables considered are reported in Table 4.

The findings reported above reveal that all proxies considered for measuring the influence of regulatory and legal environment on SARS are significant. Thus, the significance of JI, ELF, PMI and LO is lower than 1%, while that of SIP would be lower than 10%. The adjusted R^2 of the model is 97.3%. Considering the results of the additional analysis, one can conclude that the effects of country-level governance quality on SARS are validated by other variables discussed in the literature, in spite of the fact that some of these findings are not totally consistent with the earlier ones (note 1).

Table 4. Results of robustness analysis[25]

Variable	Coefficient	Standard error	t-Statistic	P-value
Constant	2.590	0.191	13.552	0.000
JI	0.166	0.026	6.156	0.000
ELF	0.152	0.013	11.632	0.000
SIP	0.031	0.017	1.770	0.077
PMI	0.466	0.022	20.845	0.000
LO	−0.558	0.107	−5.213	0.000

Effects specification
Cross-section fixed (dummy variables)

R^2	0.982	Mean dependent variable	4.682
Adjusted R^2	0.973	SD dependent variable	0.817
SE of regression	0.133	Akaike info criterion	−0.919
Sum squared residuals	4.626	Schwarz criterion	0.457
Log likelihood	319.113	Hannan–Quinn criterion	−0.374
F-statistic	106.673	Durbin–Watson statistic test	2.489
Prob (F-statistic)	0.000		

Dependent variable, SARS; Method, PLS; Sample, 2009–2011; Cross-sections included, 132; Total panel (balanced) observations, 396; White cross-section standard errors and covariance*.
*White test was applied in order to face heteroscedasticity of standards-errors and to use cross-section standard errors corrected.

For the second robustness check, the regressions were run separately for each year between 2009 and 2011. The results for the individual periods are in line with the general results when the regressions are run, including all the data from 2009 to 2011.

Conclusion

This study extends and complements the cross-country empirical literature and uses a set of country-level data across 132 countries for 2009–2011 to investigate whether the quality of country-level governance influences SARS. Given the substantiated empirical evidence obtained, the results of this study imply that governance proxies such as government effectiveness, rule of law and regulatory quality are determinant factors for SARS.

A limitation of our study is that, as it is common in empirical researches, the results achieved are subjected to possible bias as a result of omitted unknown, but significant variables. Future research, using this sample for a larger period (and possibly using firm-level data), may shed more light on this issue. But this limitation could be a venue for future research on auditing and accounting. Thus, additional research is required to further explore the impact of other factors that have been emphasized as significant for SARS. These include proxies for corporate governance, characteristics of financial market or the level of education for the accounting and auditing profession.

Note

1. For a sample of European countries, the model used by Booklay[22] leads to the conclusion that neither investor protection nor protection of minority interest is significant for SARS.

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