

CSR Engagement and Earnings Quality in Banks. The Moderating Role of Institutional Factors

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ABSTRACT

Our main objective is to study whether banks that follow CSR practices enhance earnings quality. We also analyse whether differences in earnings quality that are driven by CSR engagement are affected in a complementary or substitutive manner by levels of investor protection and bank regulation for financial institutions across countries. To test our predictions, we use a sample of 877 observations, corresponding to 159 banks from 9 countries, for the period 2004–2010. Our results indicate that a bank's commitment to CSR practices enhances earnings persistence as well as cash flow predictability. The empirical evidence also shows that the effect of CSR on the quality of bank earnings is particularly high in countries with higher levels of investor protection and bank regulation, providing evidence that these institutional factors are complementary mechanisms for CSR activities in banks, and suggesting that more socially responsible banks have higher earnings quality in a stricter regulatory environment. Copyright © 2017 John Wiley & Sons, Ltd and ERP Environment

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Introduction

BANKS TODAY ARE INCREASINGLY EXPOSED TO THE DYNAMICS OF CORPORATE SOCIAL RESPONSIBILITY (CSR), EITHER DIRECTLY, as companies themselves, or indirectly,¹ when they finance the activities of companies that are not considered 'ethical' (Sarokin & Schulkin, 1991; Thompson & Cowton, 2004; Viganò & Nicolai, 2009). According to Carnevale *et al.* (2012), banks' approach to CSR has changed, as they have become more careful about managing the risks arising from lending to firms exposed to environmental and social problems. Thus, since CSR has become a necessary aspect of business in relation to all companies' commitments to society and the community, banks are redirecting their activities towards socially responsible behaviour in order to satisfy

¹In Australia, the public image of the Big Four banks has suffered greatly because the banks have drawn the ire of environmental activists by extensively funding the fossil fuel industry, coal mining along the Great Barrier Reef, and the manufacture of nuclear arms. Oxfam Australia claims that the Big Four are also backing agricultural and timber companies that are accused of grabbing land in developing countries.

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the expectations of a broad group of stakeholders (O'Donovan, 2002) and to ensure their survival through undertaking activities that match up with the values and norms of society (Deegan *et al.*, 2002).

The existing literature shows that CSR activities in banks influence their performance (Bihari & Pradhan, 2011; Ahmed *et al.*, 2012; Jo *et al.*, 2015). For instance, Wu and Shen (2013) note that CSR is positively associated with a bank's financial performance, in terms of return on assets and return on equity, and that it is primarily a strategic choice for banks to engage in CSR. Transparency and accountability are also essential for investors and other stakeholders, because high earnings quality provides information about the features of a firm's financial performance that is relevant to a specific decision made by a specific decision-maker (Dechow *et al.*, 2010). Therefore, an examination of the role of CSR in relation to earnings quality is required. Earnings quality refers to the stability and persistence of reported earnings, the use of reported earnings to predict future cash flow, and the ability of reported earnings to reflect the company's true earnings (Mahjoub & Khamoussi, 2013).

We assume that activities in banks related to social, environmental, and ethical issues may influence earnings quality. Our main objective is then to study whether banks that follow CSR practices (hereinafter termed 'CSR banks') have better earnings quality. Using Kanagaretnam *et al.*'s (2014) definition of earnings quality, we consider two related but distinct measures of earnings quality: earnings persistence (sustainable earnings stream) and the ability of current earnings to predict future cash flow. We also analyse whether differences in earnings quality that are driven by CSR engagement are affected in a complementary or substitutive manner by levels of investor protection and bank regulation for financial institutions across countries.

To test our predictions, we use a sample of 877 observations, corresponding to 159 banks from nine countries, for the period 2004–2010. To measure CSR performance, we use, according to the previous literature (Jamali *et al.*, 2008), a multidimensional construct that addresses all the actions carried out, especially those taken in social and environmental contexts, as well as the bank's ethical commitment. Our results indicate that a bank's commitment to CSR practices enhances earnings persistence as well as cash flow predictability. Hence, this study highlights that social, ethical, and environmental conduct can drive bank managers to generate high-quality earnings. In addition, our results suggest that institutional factors play a significant and complementary role in the effect of CSR on bank earnings quality. We show that, in contexts where there is greater regulation and investor protection, CSR has more influence on a bank's earnings quality.

This paper contributes to the literature on CSR and earnings quality in several ways. First, our results contribute to CSR literature as we use a multidimensional measure of CSR performance that addresses all the actions carried out, especially those in social, ethical, and environmental contexts. Other papers are based on one-dimensional measures or aggregated measures that do not include ethical issues (Mahjoub & Khamoussi, 2013; Wu & Shen, 2013). Second, there are only a few empirical studies that have examined the association between earnings quality and CSR, and most of them are based on non-financial firms (Chih *et al.*, 2008; Choi & Pae, 2011; Hong & Andersen, 2011; Mahjoub & Khamoussi, 2013). However, because of banking industry features (high leverage, opacity, complex structure, information asymmetries, etc.) and the recent concerns regarding the quality of its reported earnings, this sector requires a particular analysis of CSR and earnings quality issues. This paper complements previous research by examining the association between CSR performance and earnings quality in the financial industry. Third, unlike previous research focused on earnings management as a proxy for earnings quality, and following to Kanagaretnam *et al.* (2014), we use two related but distinct measures of earnings quality – earnings persistence and earnings ability – to predict future cash flow. Fourth, we control for a possible causal relationship between CSR and earnings quality by using Arellano and Bond's (1991) GMM estimator for panel data, which allows us to solve the possible endogeneity problem between both variables that exists in most of the previous studies. Finally, by using an international sample, this article offers new insights into whether the association between earnings quality and CSR performance is moderated by the institutional context. To the best of our knowledge, this is the first time that institutional factors, such as investor protection and bank regulation, are examined as moderators in the relationship between CSR and bank earnings quality. Our results provide some insights for global regulators and policymakers when establishing social reporting standards, indicating that they should consider how international institutional characteristics affect the influence of CSR practices on earnings quality in banks.

Development of Hypotheses and Related Literature

CSR activities and earnings quality

Despite the increasing number of studies that show that there is a growing tendency for financial institutions to perform CSR activities, the existing research mainly concentrates on the effect of CSR on bank performance (Simpson & Kohers, 2002; Bihari & Pradhan, 2011; Soana, 2011; Ahmed *et al.*, 2012; Mallin & Farag, 2014). Along these lines, Wu and Shen (2013) investigated the relationship between CSR and financial performance in the banking sector, and the motives that drive banks to conduct CSR activities. Their evidence is consistent with existing theories of the reputation of a financial intermediary, and they conclude that banks with higher CSR have higher financial earnings and asset quality. Bushman and Wittenberg-Moerman (2012) also report that banks with high reputations are associated with stronger profitability and with a better quality of reported accounting numbers for borrowers. Similarly, Cuesta-González *et al.* (2006) conclude that CSR activities by firms in the financial services sector reduce the potential risks of the financial system and improve firm performance.

Given the potential impact of CSR activities on banks' performance, there is a surprising shortage of research into the impact of CSR on earnings quality in this industry. Controversial results have emerged when the link between earnings quality and CSR has been studied, so that there has been no consensus regarding the impact of CSR on earnings quality. The studies that support a positive influence of CSR (*long-term hypothesis*) mainly conclude that there are ethical, reputational and financial performance impacts (Kim *et al.*, 2012). Institutional stakeholder theory also suggests that social initiatives that affect stakeholder relations contribute to decreases in transaction and agency costs (Scholtens & Kang, 2013).

Another view in the literature is that CSR actions are a means by which a firm can provide a positive reputational signal (Linthicum *et al.*, 2010). According to this assertion, banks conducting CSR select and attract more creditworthy borrowers, and that this contributes to them having higher profits and better asset quality. Supporting this assumption, and the resource-based view of CSR, Bushman and Wittenberg-Moerman (2012) report that banks with high reputations are associated with stronger profitability and better credit quality of their borrowers, and Wu and Shen (2013) also suggest that banks conducting CSR can attract more loans and deposits than non-CSR banks, because CSR creates a brand name and a sense of identity among customers.

The *long-term hypothesis* is also supported by the stakeholder theory. According to this theory, socially responsible banks focus not only on increasing current profits but also on fostering future relationships with stakeholders (Choi & Pae, 2011). Supporting this view, Mahjoub & Khamoussi (2013) have found a positive influence of social and environmental disclosure on earning persistence in French companies. Along the same lines, Kim *et al.* (2012) note that socially responsible companies are less likely to manage earnings through discretionary accruals or to manipulate real operating activities, which leads to better earnings quality. Other studies such as those of Shen and Chih (2005), Hong and Andersen (2011), Choi and Pae (2011), and Scholtens and Kang (2013) have also reported the existence of a clear positive relationship between different CSR business practices and the quality of the accounting result, which would support the long-term hypothesis.

On the other hand, agency cost theory would justify a negative association between CSR and bank earnings quality. Thus, as an alternative perspective (*the managerial opportunism hypothesis*), bank managers can use CSR practices as opportunistic incentives to cover up corporate misconduct (Jensen & Meckling, 1976) and disguise their opportunistic behaviour. In addition, according to the legitimacy theory, self-interested managers in banks may adopt CSR activities just to manipulate public perception, by shifting attention from one issue to another. In line with this, Salewski and Zulch (2012) find that firms with high CSR ratings are more likely to engage in earnings management and to report lower earnings persistence. Similar results have been found by Chih *et al.* (2008), Prior *et al.* (2008), Gargouri *et al.* (2010), and Jo and Harjoto (2011).

According to the long-term hypothesis, we expect that a bank conducting CSR activities enhances its earnings quality, and so we pose the following hypothesis:

H1: *CSR performance increases earnings quality in banks*

The Moderating Role of Institutional Factors

A review of the literature on CSR and firm performance indicates several potential moderating influences that may have played a role in the apparently inconsistent findings observed to date (Margolis *et al.*, 2009). Apart from sampling problems, the validity and reliability of measures, and the omission of relevant control variables, one of the explanatory factors for the inconsistent results is the diverse contexts in which the papers are set. Different countries have different accounting standards, different levels of investor protection and differing rules about the legality of CSR (Martínez-Ferrero *et al.*, 2015b; Mechelli *et al.*, 2016), and earnings quality practices also vary across countries (Leuz *et al.*, 2003).

We would expect banks following CSR practices to perform better in countries where there is more protection of shareholders' rights, and stronger institutions. The opportunistic behaviour of bank managers may be reduced if there are effective institutional factors to discourage them. Kanagaretnam *et al.* (2014) find that banks in countries with stronger institutions were less likely to report losses, had lower loan loss provisions, and had higher balance sheet strength during the 2007–2009 crisis period. They show that earnings persistence, cash flow predictability, and the ability of a current period's loan loss provisions to predict the next period's loan charge-offs are all enhanced by strong legal, extra-legal and political institutions. Jo *et al.* (2015) also find that reducing environmental costs has a more immediate and substantial effect on the performance of financial services firms in well-developed financial markets than in less-developed financial markets.

In addition to investor protection measures, regulators may put pressure on banks to adopt effective transparent structures that promote safety and soundness and reduce information asymmetries. If bank regulation puts pressure on banks to adopt effective reporting practices, the earnings quality of CSR banks should be higher if the banks are more highly regulated. Thus, if a complementary relationship exists between CSR and bank regulation, more socially responsible banks will have higher earnings quality in a stricter regulatory environment.

Given the importance of banks in the economy, it is interesting to test whether the hypotheses based on the benefits/costs of CSR in banks can be generalized beyond the institutional differences between countries. Hence, beyond our main purpose, we test the moderating effect of (i) investor protection and (ii) bank regulatory regime on the relationship between CSR and earnings quality. Thus, we propose the following hypotheses:

H2a: . *The level of investor protection in the country moderates the influence of CSR on a bank's earnings quality.*

H2b: *The level of bank regulation in the country moderates the influence of CSR on a bank's earnings quality.*

Methodology

Population and Sample for the Analysis

The sample for analysis comprises 877 observations, corresponding to 159 banks from nine countries, for the period 2004–2010. Economic and financial data were obtained from the Compustat database, and corporate governance data were obtained from the EIRIS database and the Spencer & Stuart Board Index.

Our nine countries – Canada, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK, and the USA – allow us to consider the different banking sector regulations in the different countries. The time period considered is 2004–2010, although there is no available information for some years, leaving an unbalanced panel database of 877 observations.

Table 1 shows the sample distribution by year and country. The highest percentages refer to the years from 2004 to 2010 (more than 65% of all observations). Geographically, the observations are not distributed homogeneously: 47.21% of companies are from the USA and 21.21% are from the UK. The remaining observations are uniformly distributed among the remaining countries and years.

Our main independent variable is the level of CSR performance, measured using a multidimensional construct that addresses all the actions carried out, especially those in social and environmental contexts (Carroll, 1979). The social dimension refers to the corporate impact on the community (Hubbard, 2009), and includes philanthropic

Sample distribution by year

TOTAL	2004	2005	2006	2007	2008	2009	2010		
877	87	97	117	137	154	148	137		
100%	9.92%	11.06%	13.34%	15.62%	17.56%	16.88%	15.62%		
Sample distribution by country									
TOTAL	Canada	France	Germany	Italy	Netherlands	Spain	Sweden	UK	USA
877	67	19	23	66	25	56	21	186	414
100%	7.64%	2.17%	2.62%	7.53%	2.85%	6.39%	2.39%	21.21%	47.21%

Table 1. Sample Distribution by Year and Country

behaviour, the promotion of intellectual and human capital, the development of economic and social wellbeing, and the support of human rights. The environmental dimension is related to the development of policies and systems to economize on natural resources and to control the effects of corporate activities on the environment, in terms of waste, air emissions and chemical residues (Hubbard, 2009). In addition, we have included the banks' ethical position according to whether their codes, policies and procedures seek to foster good banking practices and enhance the quality of the relationship and communication between the bank and its customers. Such governing principles also ensure that banks will act fairly and reasonably in all their dealings with customers.

The CSR performance was obtained from the EIRIS database and comprises information about 21 items, as shown in Table 2. These items are mainly related to the ethical, social, and environmental dimensions of CSR, and represent the firm's level of commitment to stakeholders, the policies and practices it implements to support equal opportunities and human rights, its health systems and safety at work procedures, its relationships with customers, suppliers and employees, its impact on the environment and its systems and policies for environmental management. Each item takes a value between 0 and 100, so the maximum value for CSR practices is 2100. Table 2 shows that the overall mean value for the CSR variable is 357.811 with a standard deviation of 146.385. If we look at the three different dimensions of the CSR index we see that the Environmental Index is formed by four items, presenting a mean value of 97.577 with a standard deviation of ± 115.855 . The Social Index has 15 items, presenting a mean value of 110.12 with a standard deviation of ± 109.088 . The Ethical Index has a mean of 150.114 with a standard deviation of ± 64.273 .

Earnings Quality in the Banking Industry

Earnings quality is often used as a proxy for the overall quality of financial reporting. We consider two related but distinct measures of earnings quality: earnings persistence and the ability of current earnings to predict future cash flow.

Earnings persistence (EBT)

We select earnings persistence because this depends both on the firm's fundamental performance and on the accounting measurement system, and firms with more persistent earnings have a more sustainable earnings stream. This makes it a more useful input to equity valuation models and, hence, a higher persistent earnings number is evidence of higher quality. Following Kanagaretnam *et al.* (2014), we measure earnings persistence as the coefficient of current period earnings (defined as net income before income tax) in a regression of future earnings on current earnings. We estimate the following regression to investigate the effect of CSR practices on this earnings quality measure:

$$\begin{aligned} \text{EBT}_{t+1} = & \alpha_0 + \alpha_1 \text{EBT}_t + \alpha_2 \text{CSR} + \alpha_3 \text{CSR} * \text{EBT}_t + \alpha_4 \text{SIZE} + \alpha_5 \text{DEPOSIT} + \alpha_6 \text{LOANTYPE} \\ & + \alpha_7 \text{LOANGROWTH} + \alpha_8 \text{Fk} + \gamma \text{Ck} + \text{YEAR} + \varepsilon_{i,k} \end{aligned} \quad (1)$$

	Mean	Std.Dev.
CSR	357.811	146.385
Environmental Index	97.577	115.855
Environmental policy and commitment		
Environmental management system		
Environmental reporting		
Level of improvements in environmental impact		
Social Index	110.12	109.088
Labour Index		
Policy on equal opportunities and diversity issues		
System and practices to support equal opportunities and diversity issues		
Health & safety systems		
Systems and practices to advance job creation and security		
Systems to manage employee relations		
Systems to support employee training and development		
Human Rights Index		
Extent of policy addressing human rights issues		
Extent of system addressing human rights issues		
Extent of reporting addressing human rights issues		
Customers and/or Suppliers Index		
Policies on maintaining good relations with customers and/or suppliers		
Systems to maintain good relations with customers and/or suppliers		
Society Index		
Level of commitment to community or charitable work		
Policies towards its stakeholders overall		
Management systems for stakeholders overall		
Quantitative reporting for stakeholders overall		
Level of engagement with stakeholders overall		
Ethical Index	150.114	64.273
Policies and procedures on bribery and corruption (policies, system, and reporting)		
Level of comprehension of the code of ethics		

Table 2. CSR Practices: Items and Descriptive Statistics

Deposit is deposits scaled by total assets at the beginning of the year. *Loantype* is a categorical variable to control for different loan categories. *LoanGrowth* is measured as the difference between a bank's loan growth rate and the median loan growth rate of all banks from the same country and year.

The model also controls for the effects of differences in size on the estimated auto-regressive relations, represented by the logarithm of the bank's total assets at book value. Additionally, the equation includes several firm and country-level variables (*Fk* and *Ck*) to isolate the effect of CSR practices from the effects of other firm and country characteristics, and year indicators (*YEAR*) to control for year fixed effects. We estimate the model with robust standard errors clustered by country and bank to correct for heteroscedasticity and serial dependence (Petersen, 2009).

In relation to firm characteristics (*Fk*), we include a set of control variables whose effects have been found to be related to board structure in previous studies; they represent the board's independence, diversity and expertise, and are the following three variables: *Independent*, which represents the percentage of independent directors on the board of directors of the company; *Diversity*, which identifies the percentage of women directors; and *Expertise*,

which identifies the presence of directors with financial and accounting expertise on the audit committee. These variables are grouped into *Board* using a factorial analysis. All the variables have a positive charge.

Ability of earnings to predict future cash flow (EBTLLP)

We consider the ability of earnings to predict future cash flow because investors consider cash flow to be a more relevant value than profitability disclosures. This is because of the lower discretionary control of managers on cash flows than on net income. Following Kanagaretnam *et al.* (2014), we measure the ability of earnings to predict future cash flows as the coefficient from a regression of one-period-ahead earnings before taxes and loan loss provisions on current period net income before taxes. Equation 2 contains the regressions to investigate the effect of CSR on this earnings quality measure, in which higher and positive values for ϖ_1 and ϖ_3 imply higher ability of earnings to predict future cash flows:

$$\begin{aligned} \text{EBTLLP}_{it} + 1 = & \varpi_0 + \varpi_1 \text{EBT}_{it} + \varpi_2 \text{CSR} + \varpi_3 \text{CSR} * \text{EBT}_{it} + \varpi_4 \text{SIZE} + \varpi_5 \text{DEPOSIT} + \varpi_6 \text{LOANTYPE} \\ & + \varpi_7 \text{LOANGROWTH} + \Omega F_k + \gamma C_k + \text{YEAR} + \varepsilon_{i,k} \end{aligned} \quad (2)$$

The evidence of several papers like those of Martínez-Ferrero and Frías-Aceituno (2015) support a positive bidirectional relationship between CSR and financial performance, evidencing the existence of a theoretical synergistic circle and a methodological endogeneity problem. This relationship is common between CSR and other variables like earnings management (Martínez-Ferrero *et al.*, 2015a). Endogeneity is a problem of simultaneity since earnings quality practices could, in part, account for CSR engagements and vice versa (earnings quality is determined simultaneously with CSR). The problem of endogeneity has been addressed by estimating the models using instrumental variable methods embedded in the GMM as special cases. Specifically, we used the two-step system estimator with adjusted standard errors that Arellano and Bond (1991) proposed, by using the two- to four-period lags of the independent and control variables as instruments.

More concretely, although the endogeneity problem can also be controlled by using a simultaneous equations estimator, such as maximum likelihood or two/three-stage least squares estimators, the choice is based on consistency concerns (De Miguel *et al.*, 2005). The latter estimators are more efficient than is GMM, but they are not consistent and generate biased results since they do not eliminate unobservable heterogeneity (i.e., the banks' own specificity that gives rise to a particular behaviour). These differences between individuals are potentially correlated with the explanatory variables (also called individual specific effects), are invariant over time and directly influence corporate decisions (entrepreneurial capacity, corporate values, etc.). In order to control for unobservable heterogeneity, the GMM decomposes the random error term (ε_i) into two parts: the combined effect (μ_{it}), which varies from one individual to another and among time periods, and the individual effect (η_i) that is characteristic of the company.

Efficiency can be considered as a secondary criterion that helps us choose the best estimator among the consistent ones (Greene, 2003). Thus, the final GMM estimation selected is not only consistent, but is more efficient than are the other consistent estimators (De Miguel *et al.*, 2005). Specifically, the GMM estimator is highly efficient since it allows for the use as instruments of all the right-hand-side variables in the models that are lagged twice. It has been shown that these lagged values of the independent variables as instruments² are uncorrelated with the error term when the estimator is derived (Arellano & Bond, 1991; Blundell & Bond, 1998) and that they contain information on the current value of the variable, since there is frequently a delay between the decision made by an individual and its actual realisation (Pindado & Requejo, 2015).

²There is some debate as to the suitability of instruments. Some authors, such as Larcker and Rusticus (2010), advocate seeking an instrument outside the model under consideration in order to solve the identification problem. However, most empirical studies use internal instruments because they are more readily available and are not subject to certain criticisms that are made regarding external instruments, to the effect that it is difficult to prove that they are uncorrelated with the error term and, at the same time, contain enough information on the explanatory variables that are not strictly exogenous (Pindado & Requejo, 2015).

Institutional Moderating Variables

In addition to the board of directors, the legal and institutional environment and the ownership structure can also serve as monitoring mechanisms to reduce agency conflicts and ease the governance problem between investors and managers (Bathala & Rao, 1995). Thus, it is necessary to isolate the effects on this previous relationship of (i) the regulatory regime for banks and (ii) investor protection, and to analyse their substitutionary or complementary roles.

Following de Andres and Vallelado (2008) and García-Meca *et al.* (2015), the characteristics of the banking industry depend on the national characteristics as defined by different variables (Barth *et al.*, 2006; Čihák *et al.*, 2012): (i) the industry size (*Industry Size*), measured by bank assets over GDP; (ii) bank activity and ownership restrictiveness (*Industry Activity*), measured by the overall degree to which banks are permitted to engage in securities, insurance and real estate activities, and the extent to which they can own non-financial firms; (iii) official supervisory power (*Supervisory*), representing whether officials have the authority to take specific actions to prevent and correct problems; (iv) prompt corrective action (*Correction*), measuring whether laws establish predetermined levels of bank solvency that force action by the authorities; and (v) deposit insurance design (*Deposit*), which takes the value 1 if there is a limit by person, 2 if the limit is by account, and 3 if both limits exist. These variables have been grouped using a factorial analysis. All the variables have a positive charge on the factor *Regulation*, except *Industry Size*, which has a negative effect.

The indicator *IP* represents the level of investor protection in the country. It quantifies the explicit protection granted to shareholders and creditors for fraud and bankruptcy as well as the quality of law enforcement. Therefore, following studies like Leuz *et al.* (2003), *IP*, which captures a country's legal environment for protecting investor rights, consists of various indicators. These represent the legal tradition of the legal system of the country (*Com_Law*), the legal mechanisms for investor protection (*Anti_Dir*), and three legal system parameters: the efficiency index of the judicial system (*EJS*), the law and order index (*RL*), and the corruption index (*Corrup*).

Empirical Results

Basic Models

Table 3 shows the descriptive statistics of the numerical variables proposed for the analysis: dependent variables (EBT_{t+1} , $EBTLLP_{t+1}$); independent variables (EBT_t , CSR); and control variables (*Size*, *Deposit* and *LoansGrowth*). We can see that, on average, earnings persistence is around 0.7% and the ability of earnings to predict future cash flow is 1.4%. The mean value of the logarithm of total assets at book value is 9.97 and loans grow by 2% on average. Finally, the mean value of deposits is 69% of total assets.

Table 4 reports the results of our Equations 1 and 2, to estimate the effects of CSR practices on banks' earnings quality without considering the moderating effect of the characteristics of the institutional setting. In Equation 1, we

	Mean	Standard Deviation
EBT_{t+1}	0.007	0.074
$EBTLLP_{t+1}$	0.014	0.089
EBT_t	0.006	0.070
<i>CSR</i>	357.811	146.385
<i>Size</i>	9.97	2.79
<i>Deposit</i>	0.69	0.18
<i>LoanGrowth</i>	0.02	0.07

Table 3. Descriptive Statistics

EBT_{t+1} , future period earnings defined as net income before income taxes. $EBTLLP_{t+1}$, one-period-ahead earnings before taxes and loan loss provisions. EBT_t , current earnings. *CSR*, banks' corporate social responsibility practices. *Size*, logarithm of total bank assets at book value. *Deposit* is deposits scaled by total assets at the beginning of the year. *Loans Growth*, the difference between a bank's loan growth rate and the median loan growth rate of all banks from the same country and year.

			Equation 1				Equation 2			
			<i>Earnings persistence (EBT_{t+1})</i>				<i>Earnings ability to predict future cash flow (EBTLLP_{t+1})</i>			
	Predicted sign	#	Coefficient	Std. Error.	T	p-value	Coefficient	Std. Error.	t	p-value
EBT _t	⌘1	+	0.196	0.109	1.790	0.003	0.111	0.062	1.011	0.003
CSR	⌘2	¿?	0.753	0.064	11.690	0.000	0.425	0.036	6.605	0.000
EBT _t *CSR	⌘3	+	0.595	0.248	2.400	0.006	0.336	0.140	1.356	0.006
Size	⌘4	¿?	127.150	2.902	43.810	0.000	71.836	1.640	24.751	0.000
Deposit	⌘5	¿?	973.083	60.205	16.160	0.000	549.765	34.014	9.130	0.000
LoansType	⌘6	¿?	-444.668	119.589	-3.720	0.000	-251.225	67.565	-2.102	0.000
LoansGrowth	⌘7	¿?	35.396	117.388	0.300	0.763	19.998	66.321	0.169	0.763
Board	Ω1	¿?	-34.398	6.896	-4.990	0.000	-19.434	3.896	-2.819	0.000
Regulation	γ1	¿?	73.213	8.454	8.660	0.000	41.363	4.776	4.893	0.000
IP	γ2	¿?	-177.818	23.897	-7.440	0.000	-100.462	13.501	-4.203	0.000
Z			4806,84 (9)				322.60 (9)			
m ₁			-1.57				-1.74			
m ₂			0.84				0.93			
Hansen			78.71 (77)				31.27 (77)			

Table 4. Explanatory Models for Earnings Quality

We adopt the ⌘ numeration of equations 1 and 2.

In order to avoid endogeneity problems for numerical variables we have used their lags t-1 to t-2 as instruments.

All models included control dummy variables for year and country.

Notes:

i) Heteroskedasticity consistent asymptotic standard error in parentheses.

ii) z is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null hypothesis of no relationship, degrees of freedom in parentheses.

iii) m_i (m_1 and m_2) is a serial correlation test of order I (1 and 2) using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null hypothesis of no serial correlation.

iv) Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null hypothesis of no correlation between the instruments and the error term, degrees of freedom in parentheses.

EBT_{t+1} denotes future period earnings defined as net income before income taxes. $EBTLLP_{t+1}$, one-period-ahead earnings before taxes and loan loss provisions. EBT_t , current earnings. *CSR*, banks' corporate social responsibility practices. *Size*, logarithm of total bank assets at book value. *Deposit* is deposits scaled by total assets at the beginning of the year. *LoanType*, categorical variable represents different loans categories. *Loans Growth*, the difference between a bank's loan growth rate and the median loan growth rate of all banks from the same country and year. *Board*, the level of independence, diversity and expertise of the board of directors. *Regulation*, bank regulatory regime. *IP*, the level of bank's country investor protection.

analyse the role of CSR practices on earnings persistence through a regression of future earnings (EBT_{t+1}) on current earnings (EBT_t). We observe that current EBT has a positive and significant impact on future EBT at the 1% level, consistent with the results reported in other studies (such as Kanagaretnam *et al.*, 2014). However, to identify whether this effect is more relevant in banks with higher CSR practices, we interact current earnings with CSR practices. Of primary interest is ϖ_3 , the coefficient for the interaction variable $CSR*EBT_t$, which has a positive effect, indicating a higher earnings persistence in banks that develop CSR practices.

Consistent with our *long-term hypothesis* prediction, after controlling for the bank-specific and country-specific institutional controls in the regression analysis, we find that ϖ_3 is positive and significant at the 99% confidence level, indicating strong support for the hypothesis that a bank's CSR activities enhance its earnings persistence, so hypothesis H1 is supported for earnings quality.

Equation 2 of Table 4 reports the results for the cash flow predictability test (EBTLLP). The earnings quality measure uses the same variables as before. The model shows that future cash flow is positively and significantly associated with EBT, consistent with the results of Kanagaretnam *et al.* (2014). More importantly, after controlling for the bank-specific and country-specific institutional controls, the coefficient for the interaction term ϖ_3 is positive and

Panel A. Bank Regulation moderate effect

			Equation (3)				Equation (4)			
			Earnings persistence (EBT_{t+1})				Earnings ability to predict future cash flow ($EBTLLP_{t+1}$)			
	Predicted sign#		Coefficient	Std.	t	p-	Coefficient	Std. Error.	t	p-value
EBT_t	$\pi 1$	+	1897.146	282.630	6.710	0.000	937.000	155.617	6.020	0.000
CSR	$\pi 2$	$\hat{c}?$	-0.855	0.086	-9.900	0.000	-0.501	0.038	-13.240	0.000
$EBT_t * CSR$	$\pi 3$	+	9.483	1.007	9.420	0.000	0.584	0.008	11.900	0.000
$CSR * Regulation$	$\pi 4$	+	0.093	0.085	1.090	0.274	0.440	0.039	11.410	0.000
$EBT_t * Regulation$	$\pi 5$	$\hat{c}?$	1038.464	235.630	4.410	0.000	736.167	62.329	11.810	0.000
$EBT_t * CSR * Regulation$	$\pi 6$	+	7.039	0.815	8.640	0.000	1.977	0.301	6.580	0.000
Size	$\pi 7$	$\hat{c}?$	110.071	4.569	24.090	0.000	129.419	2.256	57.380	0.000
Deposit	$\pi 8$	$\hat{c}?$	876.160	85.250	10.280	0.000	1581.273	51.958	30.430	0.000
LoansType	$\pi 9$	$\hat{c}?$	-435.549	140.791	-3.090	0.002	-549.972	74.034	-7.430	0.000
LoansGrowth	$\pi 10$	$\hat{c}?$	171.086	130.290	1.310	0.189	130.414	79.859	1.630	0.102
Board	$\Omega 1$	$\hat{c}?$	-28.063	11.233	-2.500	0.012	-39.262	6.208	-6.320	0.000
Regulation	$\gamma 1$	$\hat{c}?$	77.452	31.984	2.420	0.015	114.027	15.483	7.360	0.000
IP	$\gamma 2$	$\hat{c}?$	163.438	28.456	5.740	0.000	212.714	19.150	11.110	0.000
Z			23506.84 (12)				4585.51 (12)			
m_1			-1.75				-1.65			
m_2			0.86				0.69			
Hansen			128.71 (137)				89.93 (111)			

Panel B. Investor protection moderate effect

			Equation (5)				Equation (6)			
			Earnings persistence (EBT_{t+1})				Earnings ability to predict future cash flow ($EBTLLP_{t+1}$)			
	Predicted sign#		Coefficient	Std.	t	p-	Coefficient	Std. Error.	t	p-value
EBT_t	$\pi 1$	+	251.203	188.319	1.330	0.182	406.796	58.392	6.970	0.000
CSR	$\pi 2$	$\hat{c}?$	-0.761	0.111	-6.860	0.000	-0.598	0.050	-11.900	0.000
$EBT_t * CSR$	$\pi 3$	+	5.845	0.714	8.180	0.000	2.113	0.252	8.380	0.000
$CSR * IP$	$\pi 4$	+	-1.485	0.238	-6.240	0.000	-0.272	0.065	-4.220	0.000
$EBT_t * IP$	$\pi 5$	$\hat{c}?$	1585.883	177.680	8.930	0.000	1861.157	167.705	11.100	0.000
$EBT_t * CSR * IP$	$\pi 6$	+	22.349	2.114	10.570	0.000	6.642	0.853	7.780	0.000
Size	$\pi 7$	$\hat{c}?$	134.623	5.547	24.270	0.000	125.402	2.564	48.910	0.000
Deposit	$\pi 8$	$\hat{c}?$	1104.289	101.653	10.860	0.000	1124.053	50.562	22.230	0.000
LoansType	$\pi 9$	$\hat{c}?$	-123.819	129.541	-0.960	0.339	-650.930	70.758	-9.200	0.000
LoansGrowth	$\pi 10$	$\hat{c}?$	4.263	122.582	0.030	0.972	409.068	61.874	6.610	0.000
Board	$\Omega 1$	$\hat{c}?$	-42.217	11.078	-3.810	0.000	-13.366	3.349	-3.990	0.000
Regulation	$\gamma 1$	$\hat{c}?$	51.032	11.203	4.560	0.000	70.538	7.373	9.570	0.000
IP	$\gamma 2$	$\hat{c}?$	263.962	74.119	3.560	0.000	107.331	23.846	4.500	0.000
Z			22876.64 (12)				4636.72 (12)			
m_1			-1.85				-1.72			
m_2			0.84				0.65			
Hansen			119.21 (127)				91.83 (109)			

Table 5. Institutional moderating variables

We adopt the π numeration of equations 1 and 2.

In order to avoid endogeneity problems for numerical variables we have used their lags t-1 to t-2 as instruments.

All models included control dummy variables for year and country.

Notes:

i) Heteroskedasticity consistent asymptotic standard error in parentheses.

ii) z is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null hypothesis of no relationship, degrees of freedom in parentheses.

iii) m_i (m_1 and m_2) is a serial correlation test of order I (1 and 2) using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null hypothesis of no serial correlation.

iv) Hansen is a test of the over-identifying restrictions, asymptotically distributed as χ^2 under the null hypothesis of no correlation between the instruments and the error term, degrees of freedom in parentheses.

EBT_{t+1} , denote future period earnings defined as net income before income taxes. $EBTLLP_{t+1}$, one-period-ahead earnings before taxes and loan loss provisions. EBT_t , current earnings. CSR, banks' corporate social responsibility practices. Size, logarithm of total bank assets at book value. Deposit is deposits scaled by total assets at the beginning of the year. LoanType, categorical variable represents different loans categories. Loans Growth, the difference between a bank's loan growth rate and the median loan growth rate of all banks from the same country and year. Board, the level of independence, diversity and expertise of the board of directors. Regulation, bank regulatory regime. IP, the level of bank's country investor protection.

significant at the 1% level. Our results are consistent with the prior literature (Choi & Pae, 2011; Kim *et al.*, 2012; Mahjoub & Khamoussi, 2013).

With regard to the moderating role of institutional variables (Equations (3) to (6)), the results in Table 5 show the positive impact that *Regulation* (Panel A) and the Investor Protection (*IP*) environment (Panel B) have on earnings quality, confirming our *complementary hypotheses* H2a and H2b. Concretely, we again observe that EBT and EBT*CSR have a positive impact on earnings persistence, measured by future earnings (EBT_{t+1}), and the cash flow predictability test (EBTLLP), as we saw in the previous analysis. Moreover, to observe the moderating effect of the two aspects of the institutional setting, we interact EBT*CSR with *Regulation* and *IP*. Therefore, of primary interest is π_7 , the coefficient for the interaction variable CSR*EBT_t**Regulation* in Panel A and CSR*EBT_t**IP* in Panel B. Both coefficients have a positive effect, indicating higher earnings persistence and cash flow predictability for banks that develop CSR practices in countries with a stronger regulatory environment and higher investor protection.

Overall, the results are in line with previous papers such as that of Kanagaretnam *et al.* (2014), showing that banks in stronger institutional jurisdictions are less likely to report losses, have lower loan loss provisions, and have higher balance sheet strength. This is also in line with the results of Chih *et al.* (2008), who showed that financial firms' engagement in CSR activities is positively related to the country's legal enforcement environment. Moreover, our results confirm that a complementary relationship exists between CSR and regulation: more socially responsible banks have higher earnings quality in a stricter regulatory environment. Concretely, under the complementary effect, we confirm that CSR bank practices work better in countries with more protection of shareholder rights and stronger institutions. This effect has been partially observed for investor protection by Prior *et al.* (2008) for non-financial firms.

Concluding Remarks

After analysing 159 banks from nine countries in the period 2004–2010, our results support the long-term hypothesis that CSR activities improve a bank's earnings quality. Ethics, reputation, and financial performance motivations justify the positive influence of CSR activities on banks' earnings quality. Thus, socially responsible banks committed to a higher level of CSR practices are likely to provide investors and debtholders with persistent disclosure of earnings and figures that allow managers to predict future cash flows. Our results confirm the reputation assertion, suggesting that banks conducting CSR activities select and attract more creditworthy borrowers, which contributes to the higher profit and better asset quality of such financial institutions.

The empirical evidence shows that the effect of CSR on bank earnings quality is particularly high in countries with higher levels of investor protection and bank regulation, providing evidence that these institutional factors are complementary mechanisms for CSR activities in banks, and suggesting that more socially responsible banks have higher earnings quality in a stricter regulatory environment. CSR engagement is therefore positively associated with banks' earnings quality in countries where it is easier for investors to exercise their rights against the opportunistic behaviour of insiders and where there is greater legal enforcement for banks. This supports the theory that institutional structures reduce the consumption of private benefits and improve the credibility not just of financial statements (Leuz *et al.*, 2003) but also of CSR disclosures.

Overall, our research has interesting implications for the debate over the benefits of CSR engagement in banks. First, after the critiques and scepticism about the real purpose of CSR actions in the financial industry, this paper supports the positive influence of CSR in improving bank earnings quality, suggesting the usefulness of CSR engagement in fighting against accounting fraud and management discretion, which is especially relevant to bank regulators after the recent financial crisis. Second, under the recent concerns with the quality of banks' reported earnings, the results support investors and other stakeholder requirements about the need for higher commitment in social, ethical, and environmental information, suggesting that CSR engagement mitigates the opaqueness and information asymmetry in banks and favours the persistence and predictability of their reported earnings. Third, the results support bank managerial strategies for higher CSR engagement and note that banks with better CSR measures satisfy investors' expectations by generating high-quality earnings. In particular, our results support that ethical, environmental, and social concerns drive bank managers to attain earnings that reflect future cash flow in a

better fashion, as well as more stable earnings growth and less downside volatility. Finally, despite the growing consensus that institutional factors matter (Aguilera & Jackson, 2003), evidence regarding the role of institutions on the consequences of CSR performance is scarce. Along this line, our results are useful to policy-makers by showing the relevance of the institutional context on the effects of CSR engagement in banks. In particular, the paper contributes to the debate between regulators and practitioners over the benefits of increased bank regulation and investor protection, presenting evidence of CSR engagement success for banks set in countries characterised by stricter regulatory environments and stronger shareholder protection.

Our results are focused on the moderating role of the institutional setting without considering other dimensions, such as the national cultural system. Individualism, masculinity, uncertainty avoidance, power distance, long-term orientation, and indulgence are dimensions that describe differences among cultures around the world (Hofstede & Hofstede, 2005) and these can influence accounting practices (Hannifa & Cooke, 2002). On this basis, we suggest that future research analyses culture as a moderating factor in the effect of CSR on bank earnings quality. An additional moderating variable to be considered by future researchers include corporate governance characteristics such as the audit committee (Badolato *et al.*, 2014). Future studies can also examine the effects of CSR engagement by using the subcomponents of this index, that is, environment, social and ethical issues. In addition, although the results can be used to draw inferences outside the banking industry, extending this research to non-financial industries would also be an interesting venue for future research.

As limitations, our findings are influenced by the specificity of the banking sector and the countries selected. Confirmations of these findings with a bigger dataset of banks, including those in developing countries, would be desirable. Another limitation inherent in the paper is the proxy selected for CSR performance. Although the CSR measure we use is a multidimensional construct that addresses actions carried out in social, ethical, and environmental contexts, the fact is that CSR is a concept that is difficult to operationalise. Therefore, future studies could provide more refined measures of these issues.

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References

- Aguilera RV, Jackson G. 2003. The cross-national diversity of corporate governance: dimensions and determinants. *Academy of Management Review* 28(3): 447–465.
- Ahmed SU, Islam JM, Hasan I. 2012. Corporate social responsibility and financial performance linkage-evidence from the banking sector of Bangladesh. *Journal of Organizational Management* 1(1): 14–21.
- Arellano M, Bond S. 1991. Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies* 58: 277–297.
- Badolato O, Donelson D, Ege M. 2014. Audit committee financial expertise and earnings management: the role of status. *Journal of Accounting and Economics* 58: 208–230.
- Barth JR, Caprio G, Levine R. 2006. *Rethinking Bank Supervision and Regulation: Until Angels Govern*. Cambridge University Press: Cambridge, UK.
- Bathala CT, Rao RP. 1995. The determinants of board composition: An agency theory perspective. *Managerial and Decision Economics* 16(1): 59–69.
- Bihari S, Pradhan S. 2011. CSR and performance: the story of Banks in India. *Journal of Transactional Management* 16(1): 20–35.
- Blundell SR, Bond S. 1998. Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics* 87(1): 115–143.
- Bushman RM, Wittenberg-Moerman R. 2012. The role of bank reputation in “certifying” future performance implications of borrowers’ accounting numbers. *Journal of Accounting Research* 50: 883–930.
- Carnevale C, Mazza M, Venturini S. 2012. Corporate social reporting in European banks: The effects on a firm’s market value. *Corporate Social Responsibility and Environmental Management* 19: 159–177.
- Carroll AB. 1979. A three-dimensional model of corporate performance. *Academy of Management Review* 4: 497–505.

- Cih HL, Shen CH, Kang FC. 2008. Corporate social responsibility, investor protection, and earnings management: Some international evidence. *Journal of Business Ethics* 79(1): 179–198.
- Choi TH, Pae J. 2011. Business ethics and financial reporting quality: Evidence from Korea. *Journal of Business Ethics* 103(3): 403–427.
- Čihák M, Demirgüç-Kunt A, Feyen E, Levine R. 2012. benchmarking financial development around the world. *World Bank Policy Research Working Paper* 6175. <http://doi.org/10.1596/1813-9450-6175>
- Cuesta-González M, Muñoz-Torres MJ, Fernandez-Izquierdo MA. 2006. Analysis of social performance in the Spanish financial industry through public data: A proposal. *Journal of Business Ethics* 69: 289–304.
- Dechow P, Ge W, Schrand C. 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics* 50(2–3): 127–466.
- Deegan C, Rankin M, Tobin J. 2002. An examination of the corporate social and environmental disclosures of BHP from 1983–1997: A test of legitimacy theory. *Accountability, Auditing & Accountability Journal* 15: 312–343.
- De Andres P, Vallelado E. 2008. Corporate governance in banking: The role of the board of directors. *Journal of Banking & Finance* 32: 2570–2580.
- De Miguel A, Pindado J, de la Torre C. 2005. How do entrenchment and expropriation phenomena affect control mechanisms? *Corporate Governance: An International Review* 13: 505–516.
- García-Meca E, García-Sánchez I-M, Martínez-Ferrero J. 2015. Board diversity and its effects on bank performance: An international analysis. *Journal of Banking & Finance* 53: 202–214.
- Gargouri RM, Shabou R, Francoeur C. 2010. The relationship between corporate social performance and earnings management. *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences De L'Administration* 27(4): 320–334.
- Greene WH. 2003. *Econometric Analysis*. New Jersey, USA: Prentice Hall.
- Hannifa RM, Cooke TE. 2002. Culture, corporate governance and disclosure in Malaysian corporations. *Abacus* 38(3): 317–349.
- Hofstede G, Hofstede GJ. 2005. *Cultures and Organizations: Software of the Mind*, 2nd edition. New York: McGraw Hill.
- Hong Y, Andersen ML. 2011. The relationship between corporate social responsibility and earnings management: An exploratory study. *Journal of Business Ethics* 104(4): 461–471.
- Hubbard G. 2009. Measuring organizational performance: beyond the triple bottom line. *Business Strategy and the Environment* 18: 177–191.
- Jamali D, Asem MS, Rabbath M. 2008. Corporate Governance and corporate social responsibility synergies and interrelationships. *Corporate Governance: An International Review* 16(5): 442–460.
- Jensen M, Meckling W. 1976. Theory of firm: Managerial behavior, agency costs, and capital structure. *Journal of Financial Economics* 3: 305–360.
- Jo H, Harjoto MA. 2011. Corporate governance and firm value: the impact of corporate social responsibility. *Journal of Business Ethics* 103(3): 351–383. <http://doi.org/10.1007/s10551-011-0869-y>
- Jo H, Hakkon K, Kwangwoo P. 2015. Corporate environmental responsibility and firm performance in the financial services sector. *Journal of Business Ethics* 131: 257–284.
- Kanagaretnam K, Lim C-Y, Lobo GJ. 2014. Effects of international institutional factors on earnings quality of banks. *Journal of Banking & Finance* 39: 87–106.
- Kim Y, Park M, Wier B. 2012. Is earnings quality associated with corporate social responsibility? *The Accounting Review* 87(3): 761–796.
- Leuz C, Nanda D, Wysocki P. 2003. Earnings management and investor protection: An international comparison. *Journal of Financial Economics* 69: 505–527.
- Linthicum C, Reitenga A, Sanchez J. 2010. Social responsibility and corporate reputation: The case of the Arthur Andersen Enron audit failure. *Journal of Accounting and Public Policy* 29(2): 160–176.
- Mahjoub LB, Khamoussi H. 2013. Environmental and social policy and earnings persistence. *Business Strategy and the Environment* 22: 159–172.
- Mallin CH, Farag K, Ow-Yong. 2014. Corporate social responsibility and financial performance in Islamic banks. *Journal of Economic Behavior & Organization* 103: 21–38.
- Margolis JD, Elfenbein HA, Walsh JP. 2009. Does it pay to be good... and does it matter – a meta-analysis of the relationship between corporate social and financial performance. Available at Working Paper SSRN. https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=1866371.
- Martínez-Ferrero J, Frías-Aceituno JV. 2015. Relationship between sustainable development and financial performance: international empirical research. *Business Strategy and the Environment* 24: 20–39.
- Martínez-Ferrero J, Gallego-Álvarez I, García-Sánchez IM. 2015a. A bidirectional analysis of earnings management and corporate social responsibility: the moderating effect of stakeholder and investor protection. *Australian Accounting Review* 25: 359–371.
- Martínez-Ferrero J, Ruiz-Cano D, García-Sánchez I. 2015b. The causal link between sustainable disclosure and information asymmetry: the moderating role of the stakeholder protection context. *Corporate Social Responsibility and Environmental Management* DOI:10.1002/csr.1379
- Mechelli A, Cimini R, Mazzocchi F. 2016. The usefulness of the business model disclosure for investors' judgements in financial entities. A European study. *Spanish Accounting Review* (in press)
- O'Donovan G. 2002. Environmental disclosures in the annual report: extending the applicability and predictive power of legitimacy theory. *Accountability, Auditing & Accountability Journal* 15: 344–371.
- Petersen MA. 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies* 22(1): 435–480.
- Pindado J, Requejo I. 2015. Panel data: a methodology for model specification and testing. *Wiley Encyclopedia of Management* 4: 1–8.
- Prior D, Surroca J, Tribo JA. 2008. Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social responsibility. *Corporate Governance: An International Review* 16(3): 160–177.
- Salewski M, Zulch H. 2012. The impact of corporate social responsibility (CSR) on financial reporting quality-Evidence from European blue chips. Working paper, HHL – Leipzig Graduate School of Management, Saxony.
- Sarokin D, Schulkin J. 1991. Environmentalism and the right to know: Expanding the practice of democracy. *Ecological Economics* 4(3): 175–189.

- Scholtens B, Kang F. 2013. Corporate social responsibility and earnings management: Evidence from Asian economies. *Corporate Social Responsibility and Environmental Management* 20(2): 95–112.
- Shen C, Chih H. 2005. Investor protection, prospect theory, and earnings management: an international comparison of the banking industry. *Journal of Banking and Finance* 29: 2675–2697.
- Simpson WG, Kohers T. 2002. The link between corporate social and financial performance: evidence from the banking industry. *Journal of Business Ethics* 35(2): 97–109.
- Soana MG. 2011. The relationship between corporate social performance and corporate financial performance in the banking sector. *Journal of Business Ethics* 104(1): 133–148.
- Thompson P, Cowton CJ. 2004. Bringing the environment into bank lending: implications for environmental reporting. *The British Accounting Review* 36: 197–218.
- Viganò F, Nicolai D. 2009. CSR in the European Banking Sector: Evidence from a Sector Survey. In *Corporate Social Responsibility in Europe*, Barth R, Wolff F (eds). Edward Elgar Publishing Ltd: Cheltenham, UK; 95–108.
- Wu M, Shen CH. 2013. Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance* 37(9): 3529–3547.