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Using CSR to mitigate information asymmetry in the banking sector

Andreea SEMENESCU

The Bucharest University of Economic Studies, Bucharest, Romania

Cătălin Valeriu CURMEI

The Bucharest University of Economic Studies, Bucharest, Romania

Abstract. *The paper examines the power of corporate social responsibility to reduce information asymmetry and to act as a marketing instrument in the banking sector. Trust is the most important asset of a bank. Therefore, banks are motivated to use the most effective instruments to diminish information asymmetry with their stakeholders. The fact that cash disbursements in CSR actions are not directed towards shareholders makes them more valuable signals to other stakeholders regarding the financial soundness of the bank. The empirical study conducted based on limited dependent variable models supports the effectiveness of the CSR as marketing instrument in banking. It reveals the circumstances associated to a higher probability of an active CSR policy conducted by a banking institution. The results support the hypothesis that in the banking sector CSR is perceived as an instrument which helps stakeholders reduce information asymmetry. As marketing instrument, CSR contributes to increasing the tangibility of the banking products, decreasing their perceived variability and thus making them more attractive for the clients and allowing for differentiation between competitors.*

Keywords: corporate social responsibility, banking, information asymmetry, marketing instrument

Please cite the article as follows: Semenescu, A. and Curmei, C.V. (2015), "Using CSR to mitigate information asymmetry in the banking sector", *Management & Marketing. Challenges for the Knowledge Society*, Vol. 10, No. 4, pp. 316-329, DOI: 10.1515/mmcks-2015-0021.

Introduction

Should a company care about environmental, ethical and social matters? To what extent should it consider the effects of its activity in these specific areas when planning its current operations, as well as its strategic decisions? What advantages do managers want to obtain from such activities? The decision to implement corporate social responsibility (CSR) projects of certain dimensions and destinations is of major importance if we consider, on the one hand, the costs implied by such initiatives and, on the other hand, the influence they may have on the image of the company.

Although many papers have been written on the usefulness of CSR in reducing conflicts inside the company and attracting clients, there are few papers on the economic mechanism of CSR's effectiveness in reducing conflicts within companies. Our paper adds to the literature concerning the explanation of the role of CSR in managing information asymmetries inside banking institutions. The banking sector is one of the most active in promoting CSR actions even if there is no straightforward link between banking activity and negative effects on society. Therefore, a deeper look into the conditions of the banks' decision to realize such projects is extremely appealing to researchers.

Correspondence: Cătălin Valeriu Curmei catalin.curmei@mk.ase.ro

Choosing the banking system as the framework for our study was not done arbitrarily. Besides being among the leading sectors in CSR, it also allows the researcher to make a clear separation between voluntary environmental, ethical and social initiatives and those imposed by the regulatory framework. As the financial activity is not expected to produce any damage to the environment, the banks' decision to do CSR projects can be considered entirely voluntary. It was our choice to focus explicitly on the period of the financial crisis in our research because the companies continued to get involved in CSR activities even if the perception of the public on banking activity was extremely negative. It is interesting to investigate in what conditions bank managers prefer to invest in CSR projects in order to understand in what manner they consider CSR beneficial to the banking institutions. As CSR actions are decided and implemented by managers and do not require special approval of the shareholders, in the present research we consider that the managers' decision to develop CSR projects reflects their trust in the effectiveness of this instrument in attracting clients or reducing informational conflicts and, implicitly, their perception.

The efficiency of CSR actions in creating a non-conflicting framework inside the companies is analyzed under the assumption that voluntary cash out-flows not directly linked to the current activity represent instruments that reduce information asymmetry between management and sometimes controlling shareholders, on the one hand, and other stakeholders such as shareholders, employees, creditors, community, on the other. The empirical evidence on a worldwide sample of banking institutions sustains the opinion the CSR may be perceived by the managers as an instrument to mitigate information asymmetry and from a certain point of view even as a marketing instrument at the corporate management level to attract depositors.

The double role that CSR plays in the banking industry is explained by the particularities of the sector. CSR related cash disbursements can have a mitigating effect on information asymmetries in banks as in every other sector under certain conditions. In banks, however, the main difference is that what they sell is merely trust in the bankers' capacity to invest the deposits well, providing the expected return while managing risks efficiently. This is the reason why banks pay more attention to managing risks related to their activity and a wide range of instruments were created to monitor and limit specific risks (see Dima, 2009). Therefore, information asymmetry reduction is a sine-qua-non condition in order for the banks to attract depositors. Hence, CSR has a double role in banking: instrument for limiting information asymmetry with stakeholders and marketing instrument at corporate management level to attract depositors, who are clients and creditors of the bank at the same time. These double role, although clearly distinguishable from a theoretical point of view, are not so in practice, therefore the effect of the CSR practices on banks' indicators is analyzed globally in the empirical part of the paper.

The paper proves that CSR is perceived as an efficient instrument for limiting information asymmetries with other categories of stakeholders than shareholders and big banks use it to improve or consolidate their image on the market. The paper is structured as follows. Section 2 makes a review of the literature in the field and explains the theoretical economic mechanism proposed to explain how CSR can be used to limit information asymmetry. Section 3 briefly explains the methodology and database construction. Section 4 presents the numerical results and section 5 introduces the conclusions.

Theoretical considerations

The definitions of CSR are numerous and emphasize different aspects of this complex concept. Most of them emphasize its social and environmental effect and the voluntary character of companies' involvement. Others emphasize the expected effects of companies' involvement in CSR actions in terms of reputational capital, income increases, cost and risk reduction, etc.

According to the World Business Council for Sustainable Development CSR is "the continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the working force" (1998, p. 3). The European Commission defines CSR as a voluntary decision of a company to contribute to a better society and cleaner environment. Harwood and Humby (2008) consider as included in the corporate responsibility features the social, environmental and ethical issues, while Weber (2008) understands CSR as a sub-section of the corporate sustainability framework, dealing with short-term activities centered on social, environmental and ethical issues. From a managerial point of view, Holme and Watts (2000) in Hediger (2010, p. 519) consider that "CSR is no longer seen to represent an unproductive cost or resource burden, but, increasingly, as a means of enhancing reputation and credibility among stakeholders".

Regarding the motivation of companies to implement CSR projects, Weber (2008) identifies among the advantages of CSR activities the following: positive effects on corporate image and reputation, increased employee motivation, retention and recruitment, cost savings, revenue increases from higher sales and market share and CSR-related risk reduction or management. Using a sample of US companies, El Ghoul et al. (2011) prove that CSR is associated to a smaller cost of equity capital. In the same line of thought, Goss and Roberts (2011) demonstrate empirically that CSR contributes to decreasing information asymmetry and leads to a reduction of the cost of debt. They identify a negative influence of the implication in CSR projects on the cost of debt measured by the expected return of the bonds issued by the company. Among the papers that also support the idea of important corporate benefits resulting from CSR actions we can cite Duhé (2009); Falck and Heblich (2007); Hediger (2010); Roberts (1992); Wu and Shen (2013) for banking industry.

Empirical studies show low incentives for managers to get involved in CSR activities and, if this is the case, a very careful choice of the type of CSR activities in order to avoid jeopardizing the profit margin (Deakin and Hobbs, 2007) or notice a low effectiveness of CSR preoccupations at managerial boards level (Mackenzie, 2007). In this case, the choice to involve in CSR projects may be linked to the positive effect on client attraction and retention.

Although surveys on consumer samples demonstrate that the functions they expect companies to accomplish are rather related to productive goals than to social or environmental ones (Roberts, 1996; O'connor and Meister, 2008), it is to be taken into consideration that the banking activity is different from an ordinary business because its clients (depositors) decide in which bank to invest based on the level of trust they have in that specific institution. Hence, banks are permanently preoccupied to preserve and increase the confidence of their depositors and need to find the appropriate signals to reduce the information asymmetry in relation with them and with other stakeholders.

Employees represent another important stakeholder of the company and their trust in the management team is a crucial issue in ensuring the stability and development of the company in the long run. In this case, CSR may be a useful instrument to mitigate information asymmetries. Berk et al. (2010) introduce the concept of employee entrenchment which derives from the big difficulties employees have in finding a similar job if the company goes bankrupt. Hence, they need to trust the management team and due to information asymmetry, instruments are needed to convince employees of the good faith of the management team and of the controlling shareholders. Berk et al. (2010) even identify a clientele effect proving that more risk adverse employees will prefer less indebted companies hence identifying leverage as a potential signal of the financial soundness of the company in employees' eyes.

The relation between minority and major shareholders is also characterized by information asymmetries and the more the minority shareholders are provided with instruments to control the activity of the management, the more they will be confident and will be ready to pay for a share. Contrarily, a low level of trust among minority shareholders leads to a high control premium reflecting the minority shareholders’ feeling at risk vis-a-vis of major shareholders' decisions (Dragota et al., 2013; Tilica et al. 2012).

Regarding the information asymmetry between shareholders and managers, Easterbrook (1985) introduces an economic model explaining how dividend payments can be used as an instrument of controlling management. He explains that, in the framework of a management contract motivating the manager to perform, dividend payments reducing the available cash flow of the company will force the manager to use debt in order to realize the expansion plans of the firm. The creditors, namely banks, will perform a deep analysis of the company before approving the credit, but also a continuous control during the credit period, hence allowing shareholders to freely benefit from the supplementary control of an experienced investor. A particularity of the banking activity in this respect is the lack of an external supervision provided by the creditors, due to the fact that they do not have the required financial knowledge.

We consider that CSR, resulting in voluntary cash out-flows not directly related to the activity of the company may have the same role as that of dividends explained by Easterbrook (1985) and is even more important in banks, where the effectiveness of the creditor's control is weak. The main difference consists in the more complex network of agency conflicts involved when other stakeholders such as employees or depositors are added into this framework. The new agency problems arise from employees or depositors considering that the management as an agent of the shareholders may act in the sense of protecting shareholders' interests while jeopardizing theirs. For example, even if the company is not financially sound, shareholders may want to retire high dividends in order to benefit the most from the company before it goes bankrupt. Therefore, dividend payments, although generally signalling that presently the company is profitable and has enough cash, may not be sufficient for other stakeholders to trust the management or the controlling shareholders.

As in the case of dividends, CSR determines cash out-flows not directly oriented towards shareholders. Therefore, it is expected that such payments would not be consented unless the management and the controlling shareholders really believe that the company is financially sound and can safely manage such disbursement. The increased objectivity of the CSR disbursement offers it the characteristics of a signal, not being easily reproducible by a company with financial difficulties.

An interesting differentiation may be done between CSR inside and outside companies. Indeed, CSR actions may be oriented towards insiders (employees, for instance) or can be beneficial for persons not having a direct relationship with the bank. A legitimate question would be if one or both of the two CSR forms can limit information asymmetries in the banking sector. Our opinion is that cash disbursements for CSR signal financial soundness of the bank in both cases. However, there might be a distinction concerning the information power of the two forms. While CSR inside the company might be suspected by the investors to be an alternative form of remuneration, CSR outside the company is clearly less affected by such label. Of course, in both cases, the choice of CSR objectives should be made very carefully in order not to raise suspicion of undeserved personal or corporate benefits. Due to the lack of specific data, no distinction will be made in the paper between CSR inside and outside companies, both being considered as signalling the financial soundness of the banking institutions through the cash disbursement not directly related to the shareholders.

In the context of the banking activity, trust (especially that of the depositors) is extremely important, the lack of trust resulting in sudden and severe liquidity crises which in most of the cases lead to the bankruptcy of the banking institution (Olteanu, 2004). This might be a clue in explaining the preference of the banking sector for CSR projects compared to other economic sectors. If this is the case, it is expected for the banks with higher risk, measured by a higher debt to equity ratio to promote more CSR actions in order to demonstrate their financial soundness to the stakeholders.

H1. Banks with higher debt ratio are more likely to carry on CSR projects.

Moreover, in such fragile trust framework a high payout ratio may be perceived by the other stakeholders as the result of the shareholders' decision that investing in the capital of the banking institution does not worth anymore, which is expected to lead to a decrease of the level of trust. On the other hand, considering the model exposed by Easterbrook (1985), dividend payments can be a positive signal to the shareholders. It would be interesting to observe how CSR decisions interfere with the opinion of the other stakeholders regarding a high payout ratio. Of course, a supplementary problem will be the choice of the destination of CSR projects that must concern widely accepted causes and not susceptible to be directed towards the personal benefit of the manager or the major shareholders.

H2. Payout ratio is correlated to CSR activity.

Andrikopoulos et al. (2014) and Dam and Scholtens (2012) demonstrated that the most important factors that influence the extent of corporate social responsible actions in the banking industry are size, financial leverage, market-to-book value, profitability and liquidity, but also ownership structure may have a role in explaining the decision of implementing CSR projects. Wu and Shen (2013) find a correlation of CSR with the financial performance of the company. In the next parts of the paper, we conduct an empirical research to emphasize how CSR is used in the banking sector and, implicitly, the managers' perception regarding the effectiveness of CSR in mitigating information asymmetries of each type.

Size is expected to positively influence the CSR activity of the bank, because big banks, with numerous clients and depositors are more interested in maintaining a good image in investors' eyes, but also because they have the financial resources necessary to develop CSR projects.

H3. Size is positively correlated to the probability of a bank to be active in the field of CSR.

Andrikopoulos et al. (2014) found a positive correlation between CSR disclosure and price/book value. Although puzzling at first glance, it reflects the concern of banks with a good image on the market reflected in a high PBV to maintain their reputation. CSR can be seen as an instrument to enhance their reputation on the market.

H4. Price/Book value is positively related to the CSR activity.

This hypothesis is related to the CSR capacity to limit conflicts between minority and major shareholders. A significant correlation of the CSR activity to the ownership structure may reveal information on how effective CSR is in mitigating informational asymmetries between shareholders. However, due to the multiple indicators used to define ownership structure, the results on this matter have little informational power.

H5. Ownership structure influences the likelihood of a bank to implement CSR projects.

The profitability of the banking institution reflects its capacity to generate resources that will be directed towards CSR actions. Therefore, we expect a positive correlation of the profitability with CSR activity.

H6. Profitability is positively related to the likelihood of the bank to be active in CSR.

The amount invested by the banks in property, plant and equipment can be understood as a collateral, hence attracting depositors or as a means to offer benefits to certain stakeholders such as employees, managerial team or certain shareholders. Therefore, we do not explicit the sign of the correlation at this stage, but formulate the following hypothesis:

H7. Investment policy is associated to CSR activity.

Database and methodology

We employed a quantitative analysis of the banks' preference for developing CSR activities on a sample of 463 big banking institutions worldwide. In order to measure the implication of the banking institution in CSR projects we built a dummy variable equal to 1 if the bank is listed in the CSR scoring database provided by Thomson Reuters Datastream and 0 otherwise. This database includes specific information about the CSR activities of the companies listed in Thomson Reuters Datastream that are the most active in terms of social citizenship. The choice of such indicator for CSR activity is motivated by our concern of not creating a selection bias by introducing only banks in the CSR scoring database.

In order to understand the specific conditions of a bank associated to the decision of having an active CSR policy, we consider the size of the bank measured by the natural logarithm of the sales and the financial debt ratio computed as the ratio between total financial debt and own capital. Taking into account that most of the financial debt of the banking institutions represents deposits, the financial debt ratio becomes a good indicator of the capacity of the company to attract depositors, but also of its liquidity risk. Andrikopoulos et al (2014) in a paper presenting the determinants of the banks' CSR disclosure activity emphasize that size and financial leverage are related to CSR in banks.
We also consider the payout ratio to characterize the dividend policy of the banking institutions. The payout ratio represents the percentage of the net profit distributed as dividends by the company. Easterbrook (1985) shows that dividend distribution is a mechanism for shareholders to control management. In this context, the use of CSR to limit information asymmetry can be influenced by other such instruments. Using payout ratio in the regression as independent variable can offer insights about CSR being seen as a substitute of dividend payments in which case CSR would be merely directed to solve conflicts with shareholders. Otherwise, we can conjecture that CSR is also directed to reduce informational asymmetries with other categories of stakeholders.

Profitability is also one of the factors cited in the literature as having an influence in CSR. Andrikopoulos et al. (2014) explain this hypothesis by the fact that more profitable banks have the financial means to sustain CSR projects, but they find no significant influence of the profitability on the CSR behaviour of the banking institutions. On the other hand, Wu and Shen (2012) using a different methodology, find a positive correlation of the CSR with the financial performance of the bank. In order to control for the profitability of the company we used the return on invested capital as provided by the Thomson Reuters database. Our choice was based on the idea of reflecting the return offered for the entire capital (own and borrowed) and is in line with Wu and Shen (2012). However, in additional tests not reported in detail in this paper we also chose the return on equity as a proxy of the profitability of the banks (as in Andrikopoulos et al. (2014) and obtained similar results.

The ownership structure may also be interesting in understanding the framework of CSR decisions made by banking institutions. In order to characterize the ownership structure, four variables were considered representing the percentage of the capital owned by strategic shareholders in the total shareholders' equity, the percentage owned by institutional investors, the percentage of the capital owned by foreign investors out of the total own capital of the bank and the governmental participation as a percentage of total capital.

As the dependent variable is a dummy variable, we employed a probit model in order to characterize the preference of the banking institutions for an active CSR policy. The choice of the probit model is motivated by the fact that the dependent variable is a dummy variable, but also by the fact that it is almost evenly distributed. Hence we emphasize the circumstances associated to a higher probability of a bank to be listed in the CSR Scores Database provided by Thomson Reuters.

Our database was obtained as follows. We considered the period 2005-2010 that covers the pre-crisis period and the financial crisis period and extracted financial data available for the banking institutions that are listed in the CSR Scores Database. We then completed the database with the financial data available for the other banking institutions listed in the main market indexes of the 79 countries for which data were available on

Datastream, in order to avoid the selection bias. In total, our database includes 463 banks from 79 countries: Argentine, Australia, Austria, Bahrain, Bangladesh, Belgium, Bosnia-Herzegovina, Botswana, Brazil, Bulgaria, Canada, Chile, China, Cyprus, Czech Republic, Denmark, Egypt, Finland, France, FYR Macedonia, Germany, Ghana, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Ivory Coast, Jordan, Jamaica, Japan, Kazakhstan, Kenya, Kuwait, Lebanon, Lithuania, Luxembourg, Malaysia, Malta, Mauritius, Mexico, Morocco, New Zeeland, Norway, Oman, Pakistan, Palestine, Peru, Philippines, Poland, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tanzania, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Venezuela, Zambia and Zimbabwe.

As the dependent variable does not change in time, in order to avoid biases due to the specificities of the market in a given year, we used the financial indicators average for the six year period. The results are reported in the next section.

Results

We first conducted our analysis without considering the effect of the ownership structure to put in evidence how the particular circumstances of the banks' relationship with their stakeholders are associated to the likelihood of an active CSR policy of the respective banking institution. The results are presented in Table 1.

Table 1. *Analysis of the likelihood of an active CSR banking policy*

Indicator	CSR Dummy	z-score	Probability
Size	0.3277	6.4201	0.0000
Payout Ratio	0.0133	4.5375	0.0000
Debt ratio	2.8270	3.8346	0.0001
ROIC	0.0112	0.6190	0.5359
C	-3.2211	-7.7833	0.0000
Mc-Fadden R-squared	0.1371	LR Statistics probability	0.0000

Source: Authors' own research results.

As resulting from Table 1, the probability of a company being listed in Thomson Reuters CSR Scores Database, which lists the most active companies in performing CSR projects worldwide is greater for bigger banks in terms of net sales, sustaining hypothesis H3. The result is not surprising considering that bigger banks are expected to have more available cash to use in CSR projects. Moreover, they are interested to retain their clients, and therefore to offer them strong signals of their financial soundness. This result is in line with the hypothesis that managers of the banking institutions consider that CSR helps increase the tangibility of the banking products in the sense of offering supplementary information to the depositors about the risk associated to their investment. A similar result was obtained by Andrikopoulos et al. (2014) and Branco and Rodrigues (2008).

The probability of a bank having an active CSR policy is also associated with a greater debt ratio. Hence we can presume that managers of the banks that heavily rely on deposits to form their capital are more interested in developing CSR projects. They consider it important to signal to the depositors the financial soundness of the bank, due to the higher liquidity risk associated to the high percentage of deposits in the total capital. The same correlation is revealed in Andrikopoulos et al. (2014). As CSR probability is positively associated to the debt ratio, we conclude that bankers consider CSR as an efficient instrument to limit informational asymmetry with the depositors and to retain them. Hypothesis H1 proves to be true. Hence, we conclude that CSR is understood as an instrument for mitigating information asymmetry and in the same time an efficient marketing instrument in the banking sector.

The importance of CSR with this double function in the banking industry is determined by the specificities of the banking activity which relays heavily on trust, in the sense that it is mainly based on attracting deposits on a short run and providing credits on a long run. Therefore, the bank is at risk in case of a decrease of the level of trust of its depositors which rapidly degenerates in a severe liquidity crisis.

The fact that CSR is an instrument addressed to a wide range of stakeholders, including depositors is also sustained by the literature. Hence Malin et al. (2014) for a sample of Islamic banks conclude that CSR is disclosed by mass media instruments because banks consider it important to inform the entire community about it in order to attract depositors. Gambetta et al. (2015) conclude that banks sensitive to complaints and willing to rectify errors are also preoccupied by CSR and rely heavily on deposits. Of course, many countries put in place guarantee funds for bank deposits in order to insure a minimum trust level among depositors. However, only the guarantee funds are not able to induce the required level of trust to the depositors and do not allow differentiation between banking institutions. CSR, by helping to mitigate information asymmetries with the stakeholders signalling the good quality of the banking institutions, also allows the differentiation between banks, increasing the tangibility of the products provided, and reducing their perceived variability, ultimately resulting in increased depositor attraction and a better image on the market. This is in line with Fatma and Rahman (2016) concluding that CSR positively influence customer purchase intention in the Indian banking system and with Adegbola (2014) showing that CSR is part of the marketing strategy in the Nigerian banking system. The role of CSR as marketing instrument is also documented in other economic sectors. Moisescu (2015) concludes that it positively affects customer loyalty on the Romanian dairy market.

The probability of an active CSR policy is also positively associated with a greater dividend payout ratio sustaining the hypothesis that banks' management considers that the stakeholders' opinion about a high payout ratio is merely in the sense of mistrust rather than as a signal of the financial soundness of the bank. Therefore, the management of the banks with a high dividend payout ratio are more interested in developing CSR projects. Hence H2 is true in the sense that a higher payout ratio is positively correlated to a higher probability of the bank to be listed in CSR scoring database.

A classical signal of the financial soundness of a company is the investment rate measured as the percentage of capital expenditures in the total amount reported for property, plant and equipment. The specificity of the banking activity is also to be considered in this regard. Due to the fact that little is needed in terms of fixed non-financial assets for a bank to perform its current activity, the capital investments made by banking institutions can be depicted by the stakeholders in two opposite directions. On one hand, according to the classical theory, the investment activity can be understood as a sign of the financial soundness of the company and of its good perspectives, on the other hand, they can be understood as the bank's decision to redirect a part of funds from the normal activity to fulfil the interest of a narrow category of stakeholders, namely shareholders, management and sometimes employees and in this vein the investment activity will be considered prudently by the stakeholders: debtors and depositors.

We further tested if the investment activity measured by the investment ratio is associated with the likelihood of the bank to have an active CSR policy. The results are presented below.

Table 2. *Analysis of the association of the investment policy with the likelihood of an active CSR policy*

Indicator	CSR Dummy	z-score	Probability
Size	0.3211	6.1146	0.0000
Payout Ratio	0.0131	4.2555	0.0000
Debt ratio	2.2775	3.0016	0.0027
ROIC	0.0074	0.6190	0.6936
Investment ratio	-75.1602	-3.7619	0.0002
C	-2.7687	-6.2743	0.0000
Mc-Fadden R-squared	0.1681	LR Statistics probability	0.0000

Source: Authors' own research results.

The result of our analysis depicted in Table 2 seems to favour the first hypothesis, the investments being considered a sign of the financial soundness of banking institutions, the management of the banks with active investment policies being less prone to implement CSR projects. Hypothesis H7 is confirmed in the sense that the investment policy is negatively related to the banks propensity to develop CSR projects. Of course, a possible explanation of this behaviour may also be the scarcity of available cash for banks with high investment ratios which does not allow the development of CSR activities.

As Andrikopoulos et al. (2014) revealed the price/book ratio as a determinant of CSR involvement of banking institutions, we also tested this assumption on our database.

Table 3. *Analysis of the association of PBV with the likelihood of an active CSR banking policy*

Indicator	**CSR Dummy**	**z-score**	**Probability**
Size	0.3351	6.3848	0.0000
Payout Ratio	0.0113	3.6693	0.0002
Debt ratio	2.9795	3.9115	0.0001
ROIC	0.0155	0.8185	0.4131
PBV	0.1284	1.8337	0.0667
C	-3.4923	-6.2743	0.0000
Mc-Fadden R-squared	0.1370	LR Statistics probability	0.0000

Source: Authors' own research results

The results in Table 3 suggest that the probability of CSR involvement is associated to higher PBV ratios, which is in line with the result of Andrikopoulos et al. (2014) and confirms hypothesis H5. This may be a result of the effectiveness of CSR policies among investors who value more the banks which implement CSR projects, another proof of the effectiveness of the CSR activity as a signal of the quality of the issuer, hence allowing for the limitation of information asymmetries.

We also notice that there is no association between the return on assets and the probability of the companies to get involved in CSR. The result is contrary to other studies (Wu and Shen, 2012) that confirm a positive association between the return rates of the banks and the intensity of their CSR activities and invalidates hypothesis H6, but in line with the findings in Andrikopoulos et al. (2014). The result may be explained by the differences in the database and the measure used to characterize the CSR involvement of the bank, but also by the period taken into consideration that determined unusual fluctuations of the return rates in the financial sector.

In order to understand if the ownership structure may be linked to the probability of a bank conducting an active CSR policy, we also considered the four variables describing ownership structure as independent variables in a probit regression. The results are presented in Table 4.

Table 4. *Analysis of the association of the ownership structure with the likelihood of an active CSR policy*

Indicator	CSR Dummy	z-score	Probability
Size	0.3355	5.5845	0.0000
Payout Ratio	0.0118	3.4756	0.0005
Debt ratio	2.3999	2.8151	0.0049
ROIC	0.0026	0.1236	0.9016
Investment rate	-71.3458	-3.3381	0.0008
Strategic ownership (%)	0.0026	0.8060	0.4202
Institutional investors (%)	0.0094	0.9800	0.3271
Foreign investors (%)	-0.0006	-0.0983	0.9217
Governmental ownership (%)	-0.0179	-1.2004	0.2300
C	-3.4923	-6.2743	0.0000
Mc-Fadden R-squared	0.1370	LR Statistics probability	0.0000

Source: Authors' own research results.

As is easily noticeable, it appears that there is no significant association of the ownership structure with the probability of the bank to have an active CSR policy. Hypothesis H5 cannot be confirmed, hence questioning the mangers' confidence in using CSR policy to resolve conflicts between minority and major shareholders. Using an event study methodology, Chen and Gavious (2015) show that CSR is valued positively by the marginal investor on the exchange, but is insignificant for major or institutional shareholders who are more informed and have a better analysis capacity, result that sustains our findings.

Conclusions

Our study presents an economic model of the functioning of CSR projects as instruments for limiting information asymmetry in the banking industry based on the superior ability of CSR payments to reveal the financial soundness of the company to the stakeholders due to the fact that they are not directly oriented towards shareholders. The special characteristics of the banking sector, which has an activity heavily based on trust, make managers considering CSR a very useful instrument for maintaining stakeholders' trust in the banking institution and an efficient marketing instrument.

As marketing instrument, CSR helps increase the tangibility of the banking products by revealing the quality of the banking institution and in the same vein reduces the variability of the product perceived by the depositors.

Our empirical analysis of the circumstances associated to a higher probability of banks having active CSR policies reveals that bigger banks, those which heavily rely on deposits in forming their capital and those that have high dividend payout ratios are more prone to carry on important CSR projects, as well as those with high price/book values, while those that have an active investment policy have a lower probability to be active corporate social citizens.

Although informative especially in explaining the functioning of CSR as marketing instrument and its utility in limiting information asymmetries in the banking sector, we acknowledge the limits of the study and consider that these are resourceful directions for future research in the field. Our study was concerned to draw a general picture of the use of CSR worldwide. However, interesting particularities may be explored if qualitative analyses would be conducted in specific national frameworks. We were not able to take into account factors such as religion, investors' financial education, maturity of the investment and investors' behaviour in the context of a specific transparency level of the banking institutions in a certain national environment. Considering such factors would be an interesting way to continue the research. As widely mentioned in the literature, numerous measures are used to reflect the CSR involvement of the companies, emphasizing different aspects of this complex concept. Further research may be directed to explore how efficient individual components of the CSR activity are in reducing information asymmetries in the banking sector.

Acknowledgements

The authors are grateful to Alina Mihaela Dima and Debra Riley for their very useful remarks that highly contributed to the improvement of this paper and Victor Dragotă for his useful comments and acknowledge the support of the LAREFI laboratory of Bordeaux University in obtaining the database used in this paper. The remaining errors are ours.

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