



**Corporate Social Responsibility, Cost of Equity and
Cost of Bank Loans**

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ABSTRACT

The linkage between corporate social responsibility (CSR) and a firm's financial performance (FP) had been well documented, yet the corporate control mechanism associated with a firm's CSR-FP nexus has rarely been examined. Theoretically, positive views advocating the merits of CSR postulate that a firm with CSR tends to have a greater base of investors, less uncertain earnings streams and lowers investors' perceived risks. These risk-reducing benefits from CSR provide firms with an advantageous position on financing, namely, enjoying a lowered risk premium and smaller financing cost. However, an alternative view claims that putting a firm's resources into non-profit-maximizing activities aggravates managerial monitoring burdens and incurs overinvestment concerns, thus increases agency problems and costs. In this paper, we examine whether firms devoted to CSR are associated with an easier financing burden, namely, a lowered cost of equity and cost for bank loan. Based on yearly data of listed companies on the Taiwan Stock Exchange (TWSE) covering the period 2005~2011, regression results generally show that firms with CSR tend to have a lower cost of equity, regardless of whether we measure the equity cost using the CAPM or the discounted dividend model with constant growth of dividends. Empirical findings also show that firms with CSR enjoy lowered bank loan rates. Our evidence supports the positive view of firms devoted to CSR, such as superior performance on CSR being associated with a lower financing cost. Our findings establish the linkage that a lower cost of financing is a channel through which financial markets encourage firms to be socially responsible.

Keywords: Corporate Social Responsibility, Cost of Equity, Cost of Bank Loan

JEL Classification: M14, C21, G10

1. Introduction

Corporate social responsibility (CSR) has become an issue of concern around the globe in recent decades, practically and academically. Whether from the demand side (such as public attention and government policy) or the supply side (such as new management paradigm and corporate strategy), fair accounting and financial transparency, community and environmental friendly, taking care of employees and consumers' benefits, donations and being law-abiding corporate citizens etc. are all essential dimensions associated with "maximizing stakeholder value" in today's management practices instead of just "maximizing stockholder value" in the past.

However, academically, debate on advocating/disapproving an enterprise's investing in CSR is still endless.¹ While most of these studies examine "what" is the effect of a firm's devoting itself to CSR on financial performance (FP hereafter), seldom does research discuss "how" CSR leads to improved or deteriorated financial performance. This paper discusses and examines a mechanism for the CSR-FP nexus through the financial and banking channels. The overarching theory is that, firms engaging in CSR enjoy lowered idiosyncratic risk and systematic risk which in turn lowers the required return of rate by investors. Other things being equal, a lowered financing burden potentially enhances better performance, e.g. profitability. Based on Taiwan's data of listed companies,² this paper examines the establishment of this financial market mechanism, the CSR-FP nexus by isolating the effects of firms engaging in CSR on the cost of equity and the cost of bank loans.

Based on existing studies, CSR exerts its impact on a firm's cost of capital (equity bank lending) by following four dimensions. First, Heinkel, Kraus and Zechner (2001) point out that when investors are less willing to hold the stock of a company, risk diversification opportunity is reduced and non-diversifiable risk lifts up. Inferior CSR performance incurs a smaller investor base through investor ethical preferences and problem of asymmetric information. Socially conscious investor tends to exclude stocks of companies with notorious performance on CSR from investment portfolios. Heinkel et al. (2001) divided investors into two types, one is neutral and the other is green. A neutral investor does not greenly screen investment portfolio while green investor does. A green investor tends to reject investing in

¹ Refer to Wu and Shen (2013), El Ghouli, Guedhami, Kwok and Mishra (2011) for review.

² Taiwan is an important emerging market country in Asia. In direct finance, the Taiwan Stock Exchange and OTC-listed companies up to about 1,500 companies and ranked among the best by market capitalization and turnover. For indirect finance, most enterprises' indirect financing source came from financial intermediaries such as banks instead of bond issuing. In 2012, as a whole economy, the proportion of direct versus indirect finance amount is about 21.1% for 78.9%, respectively. (<http://www.cbc.gov.tw/public/Attachment/462516382371.pdf>)

polluting enterprise, so that the stock of such company is held by fewer investors, relative to non-polluting firm. That's why firm with worse performance on CSR tends to have smaller number of investors.

EI Ghoul et al. (2011) proposed that the transmission of corporate information follows: (1) signal, (2) media coverage and analyst's forecast, and (3) investor's response. Companies with better performance on CSR tend to voluntarily disclose more information because such a company would like to send a signal to investors and other stakeholders to highlight their positive image as a responsible corporate citizen (Dhaliwal, Li, Tsang and Yang, 2009). Hong and Kacperczyk (2009) indicated that analyst and the media tend to spend relatively more time on analyzing and reporting news on companies with sound reputations. When information reaches the hands of investor, socially conscious investors pay more attention to companies with better CSR performance and abundant information while ignoring companies that would be otherwise. Therefore, firms with better performance on CSR tend to have lower information asymmetric problems and a larger base of investors, which in turn results in a lower risk premium and a lower cost of financing. Conversely, firm with lower performance on CSR create informational asymmetry problems by failing to signal information to investors, reducing their investor base, which in turn results in a higher risk premium and higher cost of financing for these firms. (EI Ghoul et al., 2011).

Second, Frederick (1995), Robinson, Kleffner and Bertels (2008) and Starks (2009) indicated that investors tend to perceive socially irresponsible companies as having higher risks. Waddock and Graves (1997) indicate that the socially irresponsible company tends to face more uncertain future claims. For instance, if a company with loose internal controls in the production process, will have a larger possibility of product safety concerns and higher probability of future legal proceedings. This leads to lower sales and rising operating costs. Therefore, the company with inferior CSR performance tends to have higher perceived risks, and thus rising systematic risk.. The company with better performance on CSR tends to have lower systematic risk, and its risk premium and thus cost of financing will be lower, and vice versa.³

Third, based on Peloza (2006), Godfrey, Merrill and Hansen (2009), Minor (2010) and Minor and Morgan (2012), CSR acts as a risk management tool and plays an insurance role for a company, such that the loss is reduced given a negative corporate event occurs. If an adverse event occurs, investors tend to judge the firm as just having "bad luck" when firm

³ Goss and Roberts (2011) proposed similar arguments on firm's risk and cost of bank loans.

has a good reputation in the past instead of "poor management" when a firm has a previously notorious reputation. Then, investors react (negatively) more to the latter than to the former. Advantages of such reputation include avoiding regulatory scrutiny and preserving a firm's market value or brand image. This insurance-like protection has contingent benefits that are not observed and valued during normal times. The characteristic of risk-mitigation when a negative event occurs illustrates that CSR functions as "doing well by reducing harm" rather than "doing well by being good". Therefore, CSR acts as risk management tools against uncertain operating environment by reducing harm and allowing firms to enjoy a lower cost of capital.

Fourth, based on Goss and Roberts (2011), CSR may augment conflicts of interest between managers and shareholders associated with agency problems. A company's social responsible expenditure gives a chance for managers to exploit private benefits at the expense of minority stockholders. Barnea and Rubin (2010) point out that the benefits from a firm taking on social responsibilities is mostly enjoyed by managers yet the derived cost is largely borne by shareholders. Therefore, this conflict of interest creates concerns about overinvestment on CSR. Higher investment on social responsible expenditure lifts up agency cost such that investors or banks will require the company to have a higher return to compensate for this risk.⁴

To sum up, firm with CSR tends to have greater investor base, reduced uncertain future earnings, perceived risks, and harms given adverse event occurs, these less-risky characteristic provides firm with an advantageous position on financing, namely, a lowered risk premium and less financing cost. Nevertheless, firm's investing in non-profit-maximizing activities aggravates managerial monitoring burden and overinvestment concerns, thus incurs higher agency costs and cost of capital.

Based on data of listed companies on Taiwan Stock Exchange (TWSE) covering period 2005~2011, we examine the linkage between CSR and cost of bank loan and cost of equity. Taiwan is an emerging market with dynamic financial system and considerable financial and direct foreign investment in China (known as a world factory with concerns for human rights) around the globe. Whether CSR is perceived as good/bad by the financial market is an

⁴ Based on these arguments, existing studies have discussed and examined the linkage between CSR and cost of capital, for examples, Goss and Roberts (2011) employed a sample of 3,996 loans (private debts) to the U.S firms and found that firm with social responsibility concerns tends to pay higher than firm without CSR concerns. Based on sample of U.S. firms, El Ghoul et al. (2011) found that firm with higher CSR scores enjoys cheaper equity financing. Menz (2010) employed samples of Euro corporate bond and found that risk premium of firm with social responsibility tends to be higher than that would be otherwise, thus firm's engaging in CSR is not rewarded by the corporate bond markets. Other studies are Derwall and Verwijmeren (2007), Sharfman and Fernando (2008) and Chava (2010).

important issue to examine. Our principal result generally shows that firms with CSR tend to have a lower cost of equity, regardless whether we measure the equity cost by the CAPM (Sharfman and Fernando, 2008) or Gordon (1962)'s discounted dividend model (DDM) with a constant dividend growth rate. Our findings also show that firms with CSR correspond to lowered bank loan rates. Overall, the evidence supports the positive linkage between CSR and the ease of financing. The favorable cost of finance is a channel through which financial markets encourage firms to be socially responsible.

Our study is differentiated from existing ones in the following ways. First, while previous studies examine the effect of CSR on a firm's cost of capital, either with respect to direct finance (e.g. Menz, 2010; El Ghouli et al. 2011) or indirect finance (Goss and Roberts, 2011). We examine the effect of CSR on direct finance and indirect finance simultaneously. Second, while Russo and Fouts (1997) argue that industry growth positively moderates the benefit of social performance on economic performance, we divide our samples into high-growth firms versus non-high-growth ones and examine whether the magnitude and direction of CSR effects on cost of capital are divergent between the two types of firms. Third, while a series of empirical studies on the linkage between CSR and the cost of capital (El Ghouli, et al. 2011; Goss and Roberts, 2011, etc.) suggest that there is an important mechanism between CSR-FP nexus based on firm's risk (McGuire, Sundgren and Schneeweis, 1988; Starks, 2009), none of them perform an econometric estimation to identify how the cost of capital acts as mediator between CSR and firm performance.⁵ In this paper, we examine how the cost of capital (equity versus bank loans) serves as a mediator between the CSR-FP nexus. Baron and Kenny (1986) propose that three conditions must hold if the cost of capital is identified as a mediator between CSR and FP, first, "CSR affects FP", second, "CSR affects the cost of capital" and third, "the magnitude of CSR affects FP that is weakened and vanished after controlling for the cost of capital". We follow these three conditions to empirically investigate the mediating role of the cost of capital. Fourth, if a firm's devotion to CSR is endogenously determined by other variables such as size, profitability, liquidity and corporate governance factors (Khaled, Mohamed and Marwa, 2011), estimating the effects of CSR on the cost of capital without controlling for those determinants might contaminate the expected casual effect of CSR. Bhagat and Black (2002) and Hermalin and Weisbach (2003) indicate that the endogeneity issue is a factor affecting empirical evidence in almost all extant finance studies. While extant studies seldom correct for the endogeneity of CSR, we employ

⁵ Based on Baron and Kenny (1986), a mediator denotes a variable that serves as an intermediary for the effects of one variable on the other.

Heckman's (1979) two-stage estimation to address this issue.

The organization of the empirical sections of the paper is as followed. Section 2 describes variables, data and econometric model. Section 3 reports the empirical results, followed by a conclusion in the final section.

2. Variables, Data and Econometric Model

2.1 Variables

2.1.1 Corporate Social Responsibility

Bragdon and Marlin (1972), Folger and Nutt (1975) and Spicer (1978) developed CSR measurements based on firm's pollution control effort, environmental protection effort and social reputation. Heinze (1976) employed subjective, non-quantitative indicators such as a survey for company's CSR impression from students of business school. The *Fortune* magazine investigated company's social prestige ranking and were widely used by academics (McGuire et al., 1988; Herremans, Akathaporn and McInnes, 1993; Preston and O'Bannon, 1997). The London Stock Exchange and the Financial Times, established FTSE, created an index about CSR (FTSE 4GOOD index series) which were employed by Guney and Schilke (2010) and Chih, Shen and Kang (2008). Other institutions provided social responsibility indices such as Kinder, Lydenberg and Domini. Co. (KLD) developed KLD Domini 400 Social Index and employed by El Ghoul, et al. (2011), Goss and Roberts (2011), Waddock and Graves (1997) and Tsoutsoura (2004). The Dow Jones and Sustainable Asset Management launched the Dow Jones Sustainability Group Index (DJSGI) which was applied by Chih, Chih and Chen (2010). Wu and Shen (2013) used a CSR index derived from the EIRIS database which offers wide and complete multidimensional social performance investigation, covering issues related to employment, the environment, community, human rights, supply chain management, etc. This index is also widely used by academics and practitioners (Brammer and Pavelin, 2004; Brammer, Brooks and Pavelin, 2006; Cuesta-González et al., 2006; Scholtens and Dam, 2007; Cox, Brammer and Millington, 2004).

Two local yet leading business magazine in Taiwan, the *Global Views Monthly (GVM)* and the *Common Wealth* offer annually and wide-range investigation on CSR performance for all listed companies of Taiwan Stock Exchange (TWSE). The *GVM* developed a framework to evaluate social responsibility performance of TWSW-listed companies from three dimensions, community participation, environmental protection and financial

transparency.⁶ The *GVM* refers to Germany social responsibility research institution, OEKOM's score weighting criteria to construct questionnaire about engagement in three dimensions mentioned above for all listed companies on the TWSE. Based on respondents' reply, they computed score on individual dimension and also summed to an aggregate score for each firm. They ranked companies according to their aggregate scores and conferred "CSR-Award" to companies which aggregate scores are relatively higher than others. This investigation started from 2005 and the result was annually announced.

The *Common Wealth's* "Corporate Citizen" survey are referred to UN Programme, OECD, U.S. Dow Jones Sustainability Index to survey performance on corporate governance, corporate commitment, social agenda participation and environmental protection.⁷ After screening and selection by hundreds of institutional analysts, accountants and the academics, "Best Corporate Citizens" are awarded to companies whose performance is relative superior to others.

Although the detail of annual investigation result such as scores on each dimension and aggregate scores of each firm is keep private by the *Global Views Monthly (GVM)* and the *Common Wealth*, we have annual list for firm name of "CSR-Award" and "Best Corporate Citizens". We defined a firm as CSR-firm if it is conferred for the *GVM's* "CSR-Award" or the *Common Wealth's* "Best Corporate Citizens", otherwise, it is Non-CSR-firm. In econometric terminology, we measure firm's CSR engagement by a dummy variable (*CSR_D*), such that if a firm is CSR-firm, *CSR_D* is equal to 1, and *CSR_D* is equal to 0 otherwise.

2.1.2 Cost of Equity and Cost of Bank Loan

We compute firm's cost of equity (*COE*) based on Gordon (1962), namely, dividends growth model with constant dividend growth rate and Capital Asset Pricing Model (CAPM) by Treynor (1961), Sharpe (1964), Lintner (1965) and Mossin (1966).

The Gordon (1962) model with constant dividend growth rate is:

⁶ The *GVM* also check: (1) negative reports at news; (2) external audit agencies (such as the EPA, Council of Labor Affairs, the Consumer's Foundation and public interest groups, etc.); (3) in past two years whether there have been major labor disputes, environmental protection and public nuisance action cases, consumer disputes and the management fraud or leave; (4) whether firms were operating losses for three consecutive years.

⁷ The main measure of corporate governance is board independence and financial transparency. Corporate commitment included commitment to consumers, staff nurturing care and innovative investments. Social agenda participation was measured by firm's local community involvement and social influence. Environmental protection surveys firm's environmental protection expenditure and energy-saving efforts.

$$P_t = \frac{D_t(1 + g_{t,t+1})}{K_t - g_{t,t+1}} = \frac{D_{t+1}}{K_t - g_{t,t+1}}, \quad K_t = \frac{D_{t+1}}{P_t} + g_{t,t+1}$$

where P_t is average daily stock price in year t , D_t and D_{t+1} is cash dividends in year t and $t+1$, $g_{t,t+1}$ is hypothesized constant dividend growth rate between year t and $t+1$ and K_t is discount rate, namely, shareholder's required rate of return at year t . While our sample period is yearly ranged from 2005-2011, given data of P_t , D_t , D_{t+1} and hypothesized value of $g_{t,t+1}$ which are ranged from 2005~2012, we could solve the value of K_t for each year, namely, t is from 2005 to 2011.

Alternatively, we employ CAPM to compute cost of equity (COE):

$$E(R_{i,t}) = R_t^f + \beta_{i,t-1}(R_{m,t} - R_{f,t})$$

where $E(R_{i,t})$ is the expected rate of return on firm i at year t and serves as proxy of firm i 's cost of equity. R_t^f is risk-free rate at year t and we employ 1-year yield rate of ten-year government bond as a proxy. $R_{m,t}$ is rate of return on the market portfolio at year t , proxied by returns of weighted average stock index of TWSE. $\beta_{i,t-1}$ is firm i 's beta coefficient at year $t-1$, estimated by market model regression of firm i 's daily stock returns on daily market returns for year $t-1$.

To measure the firm's cost of bank loan, we directly collect loan transaction data of each firm during 2005~2011 on TEJ database. While one firm could borrow from several banks with more than one time per year, based on each firm, TEJ offers data about the maximum loan rate, the lowest loan rates and average loan rate for each firm semiannually. We average two half-year data to get one-year data, for example, suppose that firm i borrows from 6 banks, A, B, C,...F in the first half of a year and the bank loan rates are 2.00%, 2.05%, 2.10%,...2.25%, firm i borrows from 7 banks, G, H, I, J, L, M and N in the second half of that year at rate 2.00%, 2.02%, 2.04%,...2.12%. The whole year average minimum lending rate ($LOANR_MI$) is $(2.00\%+2.00\%)/2$, 2.00%. The whole year average maximum lending rate ($LOANR_MA$) is $(2.25\%+2.12\%)/2$, 2.185%. The whole year average lending rate ($LOANR_A$) is $(2\%+\dots+2.25\%+2\%+\dots+2.12\%)/13=2.09\%$.

2.1.3 Control Variable in Multivariate Regression

Gebhardt, Lee and Swaminathan (2001), Easton (2004), El Ghoul et al. (2011) and Dhaliwal et al. (2011) proposed several determinants of firm's cost of equity and cost of bank loan. Firm size ($SIZE$), measured as natural logarithm of market value. Firm size is an

important factor affecting firm performance (Demsetz and Villalonga, 2001), and firm with larger size tends to have lower credit risk and easier access to internal and external finance and investors are more willing to require a lower rate of return. Other studies involved size, expected returns and cost of equity are referred to Fama and French (1993), Goss and Roberts (2011).

Morck, Shleifer and Vishny (1988) mentioned that company's debt ratio, through financial risk, impacts the company's performance (McWilliams and Siegel, 2000). Higher debt ratio corresponds to lower long-term solvency, imposes investors and creditors on higher risk and obtains a higher required rate of return. Debt ratio (*LEV*), defined as total liabilities divided by total equity has impacts on firm's cost of capital.

According to the three-factor model of Fama and French (1993), book to market value proxies for firm's growth opportunity. Goss and Roberts (2011) incorporated book to market value as determinant for firm's expected rate of returns to compute cost of capital. Cheng, Ioannou and Serafeim (2013) also showed that cost of equity and book to market value are positive correlated, represent that firm with lower growth opportunity tends to have higher cost of equity. In this paper, book to market value (*BTM*) is defined as firm's book value divided by its market value of common equity.

Firm's market risk (proxied by *BETA*) is non-diversifiable risk that investors charge for investment. Greater *BETA* implies investor will charge a higher rate of return to compensate unexpected realization of stock returns. Fama and French (1993) included *BETA* as a determinant of expected returns. El Ghouli et al. (2011) and Dhaliwal et al. (2011) found that cost of equity and *BETA* are positively correlated. We measure firm's systemic risk (*BETA*) by slope of regression of daily stock returns on market returns.

Goss and Roberts (2011) indicated that when the company's long-term leverage is higher, the spread of future interest payments will be higher. We measure long-term leverage by the ratio of long-term debt to total equity (*LD/E*). Since a higher ratio of earnings before interests and tax to total assets (*EBIT/TA*) implies the probability of default on interest payment and thus risk is lower, firms with higher earnings before interests and tax to total assets tend to have a lower bank loan rate. Retained earnings to total assets (*RE/TA*), describes a firm's ability to reinvest using their own funds, and a greater ratio implies a firm relies less on external funds and thus has lessened financial risk. Altman (1968) proposed that Z-score is a measure of firm's default risk (*ZSCORE*). Higher Z-score is associated with

lower probability of default.⁸

Several corporate governance factors indirectly affect a firm's risk through their effects on operating performance. First, Yermack (1996) proposed and found that firms with a greater number of the board of directors tend to make decision inefficiently. Larger board size deteriorates firm performance thus implying higher default risks. We measure board size (*BOARD*) by the total number of board of directors. Second, manager's shareholding (*MANHOLD*) has impact on corporate performance through the convergence of interest hypothesis (Jensen and Meckling, 1976), signaling hypothesis (Leland and Pyle, 1977) and entrenchment hypothesis (Jensen and Ruback, 1983; Stulz, 1988). Managerial shareholding is defined as the total number of manager's shareholding divided by the total number of shares outstanding. Third, Company's director' shareholding pledge ratio (*PLEDGE*) has similar effects on firm's operating consequence through governance by hypotheses mentioned above (Jensen and Meckling, 1976; Jensen and Ruback, 1983; Stulz, 1988). Pledge ratio is defined as the number of shares pledged by all directors divided by number of shares hold by all directors. Fourth, based on Pound (1988), the efficiency monitoring hypothesis supports a positive linkage between institutional investor's shareholding and performance, yet the conflict of interest hypothesis and strategic alliance hypothesis predict the inverse. Morck et al. (1988), Brickley, Lease and Smith (1988), Kaplan and Reishus (1990), Jiambalvo, Rajgopal and Venkatachalam (2002) provided evidence supporting both views. We define institutional shareholding (*INSTHOLD*) as the number of shares hold by institutions (including domestic financial institutions, foreign financial institutions, domestic trust funds and offshore trust funds) divided by total number of shares outstanding.

Cagwin and Bouwman (2002) and Ittner, Lanen and Larcker (2002) indicated that industry matters for firm's profitability, we construct 17 industry dummy variables to control for industry effects on the cost of capital. Moreover, the overall macroeconomic condition affects year-to-year operating performance and risk (Jones and Kato, 1995), we construct a 6-year dummy variable to control for macroeconomic condition on cost of capital. Mnemonics and definition of variables are reported in Table 1.

2.2 Samples

All of listed companies on TWSE (excluding financial firms with prudentially regulated

⁸ Z-score = $1.2 * X_1 + 1.4 * X_2 + 3.3 * X_3 + 0.6 * X_4 + 0.99 * X_5$, where X_1 : (working capital / total assets); X_2 : (Retained Earnings / Total Assets); X_3 : (Earnings before Interest and Tax / Total Assets); X_4 : (Market Value of Equity / Total Debt); X_5 : (Sales / Total Assets). Higher Z-score is associated with lower likelihood of bankruptcy.

by Taiwan government such as bank, insurance company, security firm and other financial institutions) are incorporated as sample and qualified by the data omission check and de-listed firms adjustment, finally the total number of firms are 750, covering the yearly data from 2005 to 2011. Sources of accounting and stock market performance data are collected from the Taiwan Economic Journal (TEJ) database. Data of CSR is collected from two domestic leading business magazines, the *Global Views Monthly (GVM)* and the *Common Wealth*. Table 2 reports yearly and industrial distribution of CSR-firms and NonCSR-firms.

2.3 Econometric Specification

Multivariate linear regression analysis with generalized least square (with White's heteroscedasticity consistent standard error) estimation is employed to examine the linkage between CSR and cost of capital. The estimation is pooled without considering fixed and random effect. To examine the effect of CSR on cost of equity, the regression equation is:

$$COE = \beta_0 + \beta_1 CSR_D + \beta_2 SIZE + \beta_3 LEV + \beta_4 BTM + \beta_5 BETA + \beta_6 INSTHOLD + \beta_7 CEOHOLD + \beta_8 BOARD + \beta_9 PLEDGE + \gamma INDUSTRY + \lambda YEAR + \varepsilon \quad (1)$$

where *COE* is cost of equity, computed by Gordon's constant growth model (with several hypothesized level of constant growth rate of dividend) and CAPM, respectively. *CSR_D* is a dummy variable mentioned before. *SIZE* is natural log of market value. *LEV* is debt ratio, *BTM* is book to market ratio, *BETA* is beta coefficient, measure a firm's systematic risk. *INSTHOLD* is institutional investor's shareholdings *MANHOLD* is managerial shareholdings. *BOARD* is board size. *PLEDGE* is directors' shareholdings pledge ratio. *INDUSTRY* is a vector of 17 industry dummies and *YEAR* is a vector of 6 year dummies. In running regression, three model specifications prevail. Specification (1), only CSR dummy (*CSR_D*) and four controls, *SIZE*, *LEV*, *BTM* and *BETA* are included in the model. Specification (2), in addition to 5 variable in specification (1), *INSTHOLD*, *MANHOLD*, *BOARD* and *PLEDGE* are further included in the equation. Specification (3), 6-year dummies and 17 industry dummies are further incorporated into the model. To examine the effect of CSR on cost of bank loan, the regression equation is:

$$LOANR = \beta_0 + \beta_1 CSR_D + \beta_2 SIZE + \beta_3 LEV + \beta_4 MTB + \beta_5 \left(\frac{LD}{E}\right) + \beta_6 \left(\frac{EBIT}{TA}\right) + \beta_7 \left(\frac{RE}{TA}\right) + \beta_8 Z\text{-SCORE} + \beta_9 BOARD + \beta_{10} CEOHOLD + \beta_{11} PLEDGE + \beta_{12} INSTHOLD + \gamma INDUSTRY + \lambda YEAR + \varepsilon \quad (2)$$

where *LOANR* is cost of bank loan, which is measured by *LOANR_MI*, *LOANR_MA* and *LOANR_AV*, respectively. *CSR_D* is a dummy variable. *SIZE* is natural log of market value.

LEV is debt ratio, (*MTB*) is market to book value ratio, (*LD/E*) is long-term debt to total equity, (*EBIT/TA*) is earnings before interests and tax to total assets, (*RE/TA*) is retained earnings to total assets, *ZSCORE* is Z-score by Titman (1968). *BOARD*, *INSTHOLD*, *PLEDGE*, *MANHOLD*, *YEAR* and *INDUSTRY* are mentioned before. Similarly, in running regression, 4 specifications prevail. Specification (1), only CSR dummy (*CSR_D*) and seven controls, *SIZE*, *LEV*, *MTB*, (*LD/E*), (*EBIT/TA*), (*RE/TA*) and *ZSCORE* are included in the equation. Specification (2), *CSR_D*, *INSTHOLD*, *MANHOLD*, *BOARD* and *PLEDGE* are included in the model. Specification (3), all variables in (1) and (2) are included. Specification (4), 6-year dummies and 17 industry dummies are further incorporated.

3. Empirical Results

3.1 Descriptive Statistics

Table 3 reports descriptive statistics of variables for full samples, samples with CSR-firm versus NonCSR-firm. To compute cost of equity based on Gordon model, g is hypothesized for several values. In Panel A, under full samples, when g is assumed to be 0%, mean cost of equity is 5.09% and the minimum and maximum are 0% and 80.37%, respectively. When g is assumed to be 10%, mean cost of equity is 15.14% and the minimum and maximum are 10% and 90.37%. Based on CAPM to compute cost of equity, the mean cost of equity is 6.66% with minimum -69.69% and maximum 122.10%. The average bank lending rate is 2.468%.

Comparing Panel B and Panel C, we find that, first, based on Gordon model ($g = 0\%$), mean cost of equity of CSR-firm and NonCSR-firm are 5.83% and 5.05%, respectively, means that CSR-firms tends to have higher cost of equity financing. Similar results prevail if g is set equal to 5% and 10%. Second, based on CAPM, mean cost of equity of CSR-firm and NonCSR-firm are 6.63% and 6.66%, respectively, means that CSR-firms tends to have slightly cheaper cost of equity. Third, mean average bank lending (*LOANR_A*) rate are 1.836% and 2.487% for CSR-firm and NonCSR-firm, respectively, means that CSR-firm tends to enjoy cheaper bank lending cost. Fourth, CSR-firm tends to have larger scale, higher growth opportunities with smaller *BTM* ratio, lower financial risk with lower leverage ratio, higher market risk (*BETA*), higher (*LD/E*) ratio, higher (*EBIT/TA*) ratio, (*RE/TA*) ratio and higher *ZSCORE*. Finally, CSR-firm tends to have greater institutional shareholdings, lower managerial shareholdings, larger board size and lower directors' shareholdings pledge ratio.

3.2 Multivariate Analysis

3.2.1 Full Samples Result

Table 4 reports multivariate regression result of the effects of CSR on cost of equity. The cost of equity is computed by the Gordon growth model with several hypothesized values of constant dividend growth rate. In Table 4, we observe that, regardless of g is set equal to 0%, 1%, 2% and 3%, estimated coefficients CSR_D are all negative with eight of twelve are statistically significant,⁹ represent that firm's devoting to CSR is associated with lower cost of equity. Putting resources on social agenda could obtain positive reward by cheaper equity financing. This result is consistent with positive view toward the linkage between CSR and cost of capital (Frederick, 1995; Robinson et al., 2008; Starks, 2009; El Ghouli et al., 2011). When the cost of equity is computed under hypothesized values of g from 4%, 5%,...10%, similar results are obtained.

Table 5 reports the regression result when cost of equity is computed by CAPM. We observe that estimated coefficients of CSR_D are all negative (-0.0997, -0.0812 and -0.0043) and two of three are significant, means that CSR-firm tends to get lower cost of equity financing. Combined with the results of Table 4, the evidence generally consists with previous studies, such as El Ghouli et al. (2011), Cheng et al. (2013) and Goss and Roberts (2011).

Table 6 reports multiple regression results of effects of the CSR on cost of bank loan, where bank loan rate are proxied by $LOANR_MI$ (minimum rate), $LOANR_MA$ (maximum rate) and $LOANR_A$ (average rate), respectively. We observe that no matter which proxy for bank loan rate is used, estimated coefficients of CSR_D are all negative and nine of twelve are significant, represents that CSR-firm tends to experience lower cost of bank lending. The result is still consistent with El Ghouli et al. (2011), Cheng et al. (2013) and Goss and Roberts (2011).

3.2.2 Samples Splitting with High-growth versus Non-high-growth Ones

Russo and Fouts (1997) argued that the industrial growth positively moderates the influence of firm's social performance on economic performance. We test this argument and divided our full samples into high-growth samples versus non-high-growth samples to see whether the benefit from doing CSR on cost of capital is larger for high-growth samples.

⁹ However, in spec. (3), estimated coefficients are all insignificant when we incorporated 17 industry dummies and 6 year dummies. Possible explanation is that industry and macroeconomic condition drive the variation of firm's cost of equity. It's intuitive because we computed cost of equity from hypothesized g and year to year stock price, when macroeconomic condition affects stock market performance, the computed cost of equity is also affected.

Based on high-growth samples, Table 7 reports multiple regression results of effects of CSR on cost of equity, which is computed by CAPM. From Panel A, we observe that three estimated coefficients of CSR_D are negative, and two of them are significant, means that CSR-firm with high sales growth tends to enjoy cheaper equity cost. Nevertheless, in panel B, all of estimated coefficients of CSR_D is insignificant although negative. The magnitude and statistical significance of the effect of CSR on cost of equity are substantially reduced. To sum up, the finding presents that the evidence of capital market benefit of firm's doing CSR tends is pronounced for high-growth corporations instead of non-high-growth ones. Our evidence supports the argument of Russo and Fouts (1997) such that the industry growth positively moderates the positive feedback of CSR on economic performance.

Table 8 reports multiple regression results of effects of CSR on cost of bank loan. We observe that except one case, almost all of estimated coefficients of CSR_D are negative and 11 of 12 are statistically significant. Yet, in Table 9, with non-high-growth samples, only 3 of 12 of CSR coefficients are negative and significant. Similar as before, the magnitude of CSR effects on cost of bank loan weakened under non-high-growth samples. The joint evidence of Table 8 and Table 9 is consistent with Russo and Fouts (1997). We propose another explanation that while the benefit versus cost of CSR engagement is not promptly and concretely reflected on accounting performance, investors and banks will be cautious on their investment decisions. CSR-firm in high-growth industry enjoy higher growth opportunities with greater potential profitability, thus investors are more willing to appreciate CSR-firms with high-growth. However, investors think that the positive feedback from doing CSR is more uncertain for firm with lower growth opportunities, thus they are reluctant to positively value CSR in terms of a lowered required rate of returns. This drives the difference of the CSR effects on investor's required rate of returns between high-growth firms versus non-high-growth ones.

3.2.3 Endogeneity of CSR

Existing studies have shown that there are relevant factors determining firm's devoting to CSR, such as size, profitability, liquidity and corporate governance (Khaled et al. 2011). Estimating the effects of CSR on cost of capital without controlling these CSR determinants might contaminate the expected casual effect of CSR on cost of capital. We employ a two-stage procedure proposed by Heckman (1979) to address the problem of CSR endogeneity. In the first stage, we estimate a probability model determining the samples that are CSR-firm or NonCSR-firm. The explained variable is CSR_D, and the explanatory variables are LSIZE

(natural log of last-period total assets), LLEV (last-period debt ratio) and LPROFIT (last-period after-tax profits). The second stage adds an inverse Mill's ratio (from the estimating result of the first stage) to the regression equation relating CSR to cost of capital.

Table 10 reports two-stage estimation results of the effects of CSR on the cost of equity, where cost of equity is computed by Gordon model with constant dividend growth with hypothesized value of growth rate (g) from 0%, 1%, 1%, 5%, 8% and 10%. From the estimated result of the first stage, we observe that firms with greater assets, better profitability and lower debt ratio tend to be CSR-firms. From the estimated result of the second stage, we observe that most of estimated coefficients of CSR_D are still negative and significant. Therefore, even controlling endogeneity of CSR by two-stage estimation, empirical evidence still shows that firm's engaging in CSR has capital market benefit in terms of cheaper equity financing. In Table 11, while the cost of equity is computed by CAPM, empirical evidence shares similarity with Table 10, firm with CSR obtains cheaper equity financing. Table 12 reports the two-stage estimation results of the effects of CSR on cost of bank loan. The finding of the first stage shows that firms with larger asset, better profitability and lower debt ratio tend to be CSR-firms. In the second stage, the sign and significance of the estimation coefficients on CSR_D are not consistent.

To sum up, the two-stage results show that as we control firm's self-selection as CSR-firm by size, profitability and financial risk by two-stage estimation, CSR still has benefits in terms of lowered cost on equity financing instead of debt financing. A possible explanation is that the cost of equity is imputed by a firm's stock market performance, even after controlling for the firm's size, profitability and financial risk, stockholders tends to appreciate firms engaging in CSR because the characteristics of the stock market are forward-looking, and CSR enhances business sustainability. However, banks tend to cautiously decide a lending rate based on borrower's 5C, 5P and tangible accounting performance. Therefore, if a firm's size, profitability and financial risks are controlled, firms doing CSR cannot affect a lender's appreciation of CSR in deciding on a lending rate. That's why under a two-stage estimation, CSR reduces a firm's cost of equity instead of the cost of a bank loan.

3.2.4 Testing Cost of Capital as Mediator between CSR and Corporate Performance

Based on Baron and Kenny (1986), Surroca, Tribo and Waddock (2010) proposed and examined firm's intangible assets as mediator between CSR and financial performance. We propose that firm's cost of capital also acts as mediator between CSR-performance nexus.

The intuitive logic is that, if a firm has cheaper financing cost, *ceteris paribus*, enjoys greater profitability. We follow steps of Baron and Kenny (1986) and Surroca et al. (2010), first, we examine whether CSR affects financial performance without considering cost of capital as explanatory variable in the regression equation, second, we test whether CSR affects cost of capital and third, we examine whether the magnitude of the effects of CSR on financial performance weakened or vanished with cost of capital as explanatory variable. If three conditions are hold, then cost of capital acts as mediator between CSR and firm performance.¹⁰

First, to test whether the cost of equity acts as mediator between CSR and performance, Table 13 reports the regression results of the effects of CSR on a firm's financial performance (proxied by *EPS*). We observe that the estimated coefficients of *CSR_D* are insignificant, meaning that a firm's engaging in CSR is not correlated with better financial performance. Because the evidence does not support the establishment of the first condition, the identification of cost of equity acts as mediator between CSR-FP nexus is failed. We omit to test the establishment of two remaining conditions.¹¹ Second, for testing whether cost of bank loan acts as mediator between CSR and performance, Panel A in Table 16 (bank loan rate is proxied by *LOANR_MI*) shows that estimated coefficients of *CSR_D* are all positive and three of four are significant. In panel B, we observe that the effect of CSR on the cost of bank loans is all negative with statistical significance. In Panel C, after incorporating the cost of bank loan (*LOANR_MI*) regression equation, the estimated coefficients of *CSR_D* are still positive

¹⁰ Based on Baron and Kenny (1986), to examine whether cost of equity (*COE*) acts as mediator between CSR-FP nexus, we employ three-step method by estimating following three regression equations. The explained variable in the first-step regression equation is firm's financial performance (proxied by *EPS*), several explanatory variables are CSR dummy variable (*CSR_D*), natural log of total assets (*SIZE*), sales growth rate (*SALESG*), ratio of research and development expense to net sales (*RD*), debt to equity ratio (*LEV*), years from firm's establishment to now (*AGE*), institutional shareholdings (*INSTHOLD*), managerial shareholdings (*MANHOLD*), number of board of directors (*BOARD*), director's shareholdings pledge ratio (*PLEDGE*), 17 industry dummies (*INDUSTRY*) and 6 year dummies (*YEAR*). The explained variable and explanatory variables in the second-step regression equation is equation (1) mentioned in section 2.3. In the third-step regression equation, explained and explanatory variables are similar with equation of first-step except further incorporate cost of capital (*COE*) as additional explanatory variable. Similarly, to examine whether cost of bank loan (proxied by *LOANR_MI*, *LOANR_MA* and *LOANR_A*) acts as mediator between CSR-FP nexus, the explained variable in the first-step regression equation is firm's financial performance (proxied by returns on assets, *ROA*), several explanatory variables are CSR dummy variable (*CSR_D*), natural log of total assets (*SIZE*), debt to equity ratio (*LEV*), sales growth rate (*SALESG*), ratio of research and development expense to net sales (*RD*), years from firm's establishment to now (*AGE*), institutional shareholdings (*INSTHOLD*), managerial shareholdings (*MANHOLD*), number of board of directors (*BOARD*), director's shareholdings pledge ratio (*PLEDGE*), 17 industry dummies (*INDUSTRY*) and 6 year dummies (*YEAR*). The explained variable and explanatory variables in the second-step regression equation is equation (2) mentioned in section 2.3. In the third-step regression equation, explained and explanatory variables are similar with equation of first-step except further incorporate cost of bank loan (proxied by *LOANR_MI*, *LOANR_MA* and *LOANR_A*, respectively) as additional explanatory variable. Incorporation of controls of above regressions is referred to Morck et al. (1988), Demsetz and Villalonga (2001), McConnell and Servaes (1990), Luo and Hachiya (2005) and Mak and Kusnadi (2005).

¹¹ Table 14 reports the regression results of the effects of CSR on firm's cost of equity, which is proxied by *COE* (*g*=0%), *COE* (*g*=5%), *COE* (*g*=10%) and *COE* (CAPM). We observe that CSR and cost of equity measures are negatively correlated, means that firm with CSR tends to have favorable equity financing. Table 15 reports regression results of effects of CSR on financial performance and incorporating *COE* as additional explanatory variable. Most of estimated coefficients of *CSR_D* are still insignificant.

and significant, thus the third condition is not hold. The estimation results of Table 17 and Table 18 are similar. To sum up, the empirical finding does not support that cost of capital (equity versus bank lending) act as mediator between CSR and firm performance. Because the focus of failure to identification mediator is estimated coefficients of *CSR_D* do not decay in their magnitude and statistically significance, possible explanation may be that, first, while firm's cost of equity does reduce by doing CSR, yet it is only reflected on market value of firm instead of firm's accounting performance (such as EPS here). Second, although firm's bank-lending cost is reduced by doing CSR, the benefit does not reach economic significance.

To sum up the empirical findings, first, the full sample results show that a firm with superior performance on CSR tends to enjoy a cheaper cost of equity and cost of bank loans. Second, the magnitude and statistical significance of the CSR-effect on the cost of capital is larger in high-growth firms. Third, after controlling firm size, profitability and financial risk by Heckman's (1979) two-stage estimation, capital market benefits from doing CSR is still alive in equity funds instead of bank loans. Fourth, the evidence does not provide support for the cost of capital acting as mediator between CSR and financial performance.

4. Conclusions

This paper investigates whether a firm's benevolence earns financial market benefits in terms of a lower cost of equity and lower bank lending rate. Similar to Goss and Roberts (2011) and Ghoul et al. (2011), we employ listed companies on TWSE to comprehensively to examine the CSR effect on a firm's cost of equity and cost of bank loans. Then, we investigate the relevance of growth opportunities on the CSR effect. To test robustness, endogeneity of CSR is addressed by Heckman (1979) two-stage estimation. Finally, econometric identification of the cost of capital acting as a mechanism with a CSR-performance link is supplied. Empirical findings support the merits of a firm's doing CSR, and the financial market benefit is larger and more significant for firm with higher growth opportunities. Under a two-stage estimation, while the benefit from doing CSR is still reflected on equity rather than bank lending, it does not reach economic significance to help firm in gaining greater accounting performance.

The principal outcome encourages management to devote more resources on CSR to obtain a favorable position on equity financing and bank lending. A lower cost of capital is a channel through which financial markets encourage firms to be more socially responsible.

CSR contributes to society and benefits firms by allowing them to enjoy cheaper financing costs. On the other hand,, firms with poor past performance on CSR or could put resources into advertising CSR activities (green-washing) because doing so reduces the cost of capital. Based on our findings, win (stockholders)-win (stakeholders) situation is not just a branding slogan.

In the future research, first, our samples are listed companies, so the statistical inference is limited to firm with larger size. Extending a wider range of samples is needed. Second, doing CSR has a long-term effect on firm's operating consequences, now we employ data for only seven years, lengthening the data facilitates the short-run versus long-run CSR effects. Third, we compute cost of equity by Gordon's model and CAPM, recent studies such as Claus and Thomas (2001), Gebhardt et al. (2001) and Ohlson and Juettner-Nauroth (2005) could be applied. Fourth, to address endogeneity issue and casual effect, Çolak and Whited (2007) proposed and applied several methods such matching and difference-in-difference method. Future research could incorporate these estimation techniques to investigate the value of CSR to firm.

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Table 1 Mnemonics and Definition of Variables

Variable	Definition
LOANR_MI	Firm's lowest bank loan rate from a specific bank at given year
LOANRA_MA	Firm's highest bank loan rate from a specific bank at given year
LOANR_A	Firm's average bank loan rate from all bank lending at given year
COE	Computed from Gordon's (1962) model with constant dividend growth rate (g) and Capital Asset Pricing Model (CAPM) by Treynor (1961), Sharpe (1964), Lintner (1965) and Mossin (1966).
CSR_D	A dummy variable which equal to 1 if firm is either a winner of "CSR Award" of the <i>GVM</i> or "Best Corporate Citizens" of the <i>Common Wealth</i> . Otherwise, it is equal to 0
SIZE	Natural logarithm of firm's total assets
LEV	Total liability divided by total equity
BTM	Firm's book value divided by its market value
BETA	β coefficient, estimated by market model regression of last-year daily stock returns on daily market returns
LD/E	Firm's long-term debt to total equity
EBIT/TA	Earnings before interest and tax to total assets
RE/TA	Retained earnings to total assets
ZSCORE	Z-score by Titman (1968): $Z = 1.2 * X_1 + 1.4 * X_2 + 3.3 * X_3 + 0.6 * X_4 + 0.99 * X_5$, where X_1 : (working capital / total assets); X_2 : (Retained Earnings / Total Assets); X_3 : (Earning before Interest and Tax / Total Assets); X_4 : (Market Value of Equity / Total Debt); X_5 : (Sales / Total Assets)
BOARD	Total number of directors
MANHOLD	The number of shares hold by the management divided by total number of shares outstanding
PLEDGE	The number of shares pledged by all directors divided by number of shares hold by all directors
INSTHOLD	The number of shares hold by institutions (including domestic financial institutions, foreign financial Institutions, domestic trust funds and offshore trust funds) divided by total number of shares outstanding
YEAR	Yearly dummy variable
INDUSTRY	Industry dummy variable

Note:

All definitions of variables are from the Taiwan Economic Journal (TEJ), the *Global Views Monthly* and the *Common Wealth*.

Table 2 Sample Distribution by Years and Industries

Panel A : Sample Distribution with Years							
	Number of Observations						
	2005	2006	2007	2008	2009	2010	2011
CSR-firm	7	12	33	45	44	44	34
NonCSR-firm	743	738	717	705	706	706	716
Total	750	750	750	750	750	750	750
Percentage of CSR-firm	0.93	1.60	4.40	6.00	5.87	5.87	4.53

Panel B : Sample Distribution with Industries		
Industry	Number of Observations	Percentage (%)
Cement	7	0.93
Food	20	2.67
Plastic	21	2.80
Spinning	47	6.27
Electronic Engineering	37	4.93
Electronics and Cables	14	1.87
Chemistry	25	3.33
Glass	4	0.53
Papermaking	7	0.93
Steel	29	3.87
Rubber	10	1.33
Car	5	0.67
Information Tech and Electronics	373	49.73
Buildings and Construction	40	5.33
Shipping	19	2.53
Hospitality	8	1.07
merchandise	10	1.33
Others	74	9.88
Total	750	100

Note :

Based on the trading classification of Taiwan Stock Exchange (TWSE), this table reports sample distribution with years and industries.

Table 3 Descriptive Statistics

Variable	Panel A. Full Samples				Panel B. Samples with CSR-firm				Panel C. Samples with NonCSR-firm			
	Mean	Std. dev	Min	Max	Mean	Std. dev	Min	Max	Mean	Std. dev	Min	Max
<i>COE</i> (g=0%)	0.0509	0.0594	0.0000	0.8037	0.0583	0.0380	0.0000	0.1734	0.0505	0.0602	0.0000	0.8037
<i>COE</i> (g=5%)	0.1011	0.0595	0.0500	0.8537	0.1087	0.0381	0.0500	0.2234	0.1008	0.0602	0.0500	0.8537
<i>COE</i> (g=10%)	0.1514	0.0596	0.1000	0.9037	0.1591	0.0382	0.1000	0.2734	0.1510	0.0604	0.1000	0.9037
<i>COE</i> (CAPM)	0.0666	0.3372	-0.6969	1.2210	0.0663	0.3924	-0.6637	1.1377	0.0666	0.3345	-0.6969	1.2210
<i>LOANR_AV</i>	2.4681	1.2153	0.0000	11.206	1.8356	1.1415	0.0000	5.6122	2.4872	1.2126	0.0000	11.206
<i>CSR_D</i>	0.4171	0.1999	0.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000
<i>SIZE</i>	22.399	1.4885	17.687	28.306	24.887	1.5134	21.003	28.306	22.284	1.3827	17.687	27.893
<i>BTM</i>	0.7379	0.9273	0.0100	20.871	0.3319	0.3011	0.0179	2.4459	0.7569	0.9423	0.0100	20.871
<i>LEV</i>	0.3659	0.1739	0.0001	0.9913	0.3535	0.1689	0.1098	0.7726	0.3665	0.1741	0.0001	0.9913
<i>BETA</i>	0.9084	0.3302	-1.4961	3.2931	0.9121	0.2964	0.1223	1.6036	0.9083	0.3317	-1.4961	3.2931
<i>LD/E</i>	0.1671	0.6314	0.0000	31.775	0.1868	0.3135	0.0000	2.2509	0.1664	0.6397	0.0000	31.775
<i>EBIT/TA</i>	0.0093	0.0467	-0.6817	0.9430	0.0198	0.0287	-0.1348	0.0710	0.0090	0.0472	-0.6817	0.9430
<i>RE/TA</i>	0.0484	0.3212	-10.254	0.6473	0.1546	0.1178	-0.1286	0.6473	0.0447	0.3254	-10.254	0.6153
<i>ZSCORE</i>	0.5346	0.6789	-14.132	2.5574	0.6977	0.4161	-0.3782	1.9729	0.5288	0.6857	-14.132	2.5574
<i>INSTHOLD</i>	40.074	22.697	0.0000	100.00	66.555	22.047	5.8500	98.410	38.870	21.983	0.0000	100.00
<i>MANHOLD</i>	1.5337	2.4565	0.0000	23.020	0.8618	1.4058	0.0000	9.9200	1.5642	2.4896	0.0000	23.020
<i>BOARD</i>	7.1181	2.3763	3.0000	21.000	9.3088	3.2177	5.0000	21.000	7.0188	2.2822	3.0000	21.000
<i>PLEDGE</i>	10.561	19.049	0.0000	99.970	9.3407	17.317	0.0000	90.100	10.616	19.124	0.0000	99.970

Note:

This table reports basic descriptive statistics (mean, standard deviation, minimum and maximum) for variables. See Table 1 for the definition of variables. Yearly data is ranged from 2005 to 2011.

Table 4 Regression Results of the Effects of CSR on Cost of Equity (g: 0%~3%)

Explanatory Variables	Explained Variable											
	COE (g=0%)			COE (g=1%)			COE (g=2%)			COE (g=3%)		
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	0.0184 (0.95)	0.0120 (0.57)	0.0119 (0.58)	0.0285 (1.47)	0.0221 (1.05)	0.0222 (1.07)	0.0385** (1.99)	0.0322 (1.53)	0.0325 (1.57)	0.0486** (2.51)	0.0423** (2.01)	0.0428** (2.06)
CSR_D	-0.0068** (-2.14)	-0.0071** (-2.25)	-0.0005 (-0.16)	-0.0067** (-2.14)	-0.0071** (-2.25)	-0.0005 (-0.16)	-0.0067** (-2.13)	-0.0071** (-2.24)	-0.0005 (-0.16)	-0.0067** (-2.12)	-0.0070** (-2.24)	-0.0004 (-0.16)
SIZE	0.0030*** (3.56)	0.0032*** (3.24)	0.0029*** (3.02)	0.0030*** (3.56)	0.0032*** (3.24)	0.0029*** (3.02)	0.0030*** (3.56)	0.0032*** (3.24)	0.0029*** (3.03)	0.0030*** (3.56)	0.0032*** (3.24)	0.0029*** (3.03)
BTM	-0.0144*** (-6.79)	-0.0134*** (-6.55)	-0.01497*** (-6.27)	-0.0145*** (-6.79)	-0.0134*** (-6.55)	-0.01498*** (-6.27)	-0.0145*** (-6.79)	-0.0134*** (-6.55)	-0.0150*** (-6.27)	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0150*** (-6.27)
LEV	-0.0066 (-1.10)	-0.0067 (-1.11)	-0.0188*** (-3.23)	-0.0066 (-1.10)	-0.0067 (-1.11)	-0.01889*** (-3.23)	-0.0066 (-1.10)	-0.0067 (-1.12)	-0.0189*** (-3.23)	-0.0067 (-1.11)	-0.0068 (-1.12)	-0.0189*** (-3.23)
BETA	-0.0241*** (-8.45)	-0.0241*** (-8.22)	-0.0191*** (-6.51)	-0.0241*** (-8.45)	-0.0241*** (-8.22)	-0.0191*** (-6.52)	-0.0241*** (-8.45)	-0.0241*** (-8.22)	-0.0191*** (-6.52)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0192*** (-6.53)
INSTHOLD		0.0001** (2.17)	0.0001** (2.41)		0.0001** (2.18)	0.0001** (2.41)		0.0001** (2.18)	0.0001** (2.40)		0.0001** (2.18)	0.0001** (2.40)
MANHOLD		0.00196*** (5.24)	0.0017*** (4.48)		0.00197*** (5.24)	0.0017*** (4.48)		0.00197*** (5.24)	0.0017*** (4.48)		0.00197*** (5.23)	0.0017*** (4.49)
BOARD		-0.0006* (-1.67)	-0.0005 (-1.42)		-0.0006* (-1.67)	-0.0005 (-1.42)		-0.0006* (-1.67)	-0.0005 (-1.42)		-0.0006* (-1.67)	-0.0005 (-1.42)
PLEDGE		-0.00003 (-0.69)	-0.00004 (-0.86)		-0.00003 (-0.70)	-0.00004 (-0.86)		-0.00003 (-0.70)	-0.00004 (-0.86)		-0.00003 (-0.71)	-0.00004 (-0.87)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. of Obs.	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684
Adj. R-square	0.0723	0.0792	0.1929	0.0724	0.0792	0.1925	0.0725	0.0793	0.1921	0.0726	0.0794	0.1918
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

This table reports pooled OLS estimation results of regression analysis relating firm's cost of equity (computed by Gordon model with hypothesized value of constant growth rate as 0%, 1%, 2% and 3%) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 4 Regression Results of the Effects of CSR on Cost of Equity (Cont.) (g: 4%~7%)

Explanatory Variables	Explained Variable											
	COE (g=4%)			COE (g=5%)			COE (g=6%)			COE (g=7%)		
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	0.0587*** (3.03)	0.0524** (2.49)	0.0531** (2.56)	0.0688*** (3.55)	0.0625*** (2.97)	0.0633*** (3.05)	0.0789*** (4.06)	0.0726*** (3.45)	0.0736*** (3.54)	0.0889*** (4.58)	0.0827*** (3.93)	0.0839*** (4.03)
CSR_D	-0.0067** (-2.12)	-0.0070** (-2.23)	-0.0004 (-0.15)	-0.0067** (-2.11)	-0.0070** (-2.23)	-0.0004 (-0.15)	-0.0066** (-2.10)	-0.0070** (-2.22)	-0.0004 (-0.15)	-0.0066** (-2.10)	-0.0070** (-2.21)	-0.0004 (-0.15)
SIZE	0.0030*** (3.55)	0.0032*** (3.23)	0.0029*** (3.04)	0.0030*** (3.55)	0.0032*** (3.23)	0.0029*** (3.04)	0.0030*** (3.55)	0.0032*** (3.23)	0.0029*** (3.04)	0.0030*** (3.55)	0.0032*** (3.23)	0.0029*** (3.05)
BTM	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0150*** (-6.26)	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0150*** (-6.26)	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0151*** (-6.26)	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0151*** (-6.26)
LEV	-0.0067 (-1.11)	-0.0068 (-1.13)	-0.0189*** (-3.23)	-0.0067 (-1.12)	-0.0068 (-1.13)	-0.0189*** (-3.23)	-0.0067 (-1.12)	-0.0068 (-1.13)	-0.0189*** (-3.23)	-0.0068 (-1.12)	-0.0068 (-1.14)	-0.0189*** (-3.23)
BETA	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0192*** (-6.54)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0192*** (-6.55)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0193*** (-6.55)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0193*** (-6.56)
INSTHOLD		0.0001** (2.18)	0.0001** (2.40)		0.0001** (2.18)	0.0001** (2.40)		0.0001** (2.19)	0.0001** (2.40)		0.0001** (2.19)	0.0001** (2.39)
MANHOLD		0.00197*** (5.23)	0.0017*** (4.49)		0.00197*** (5.23)	0.0017*** (4.49)		0.00197*** (5.23)	0.0017*** (4.49)		0.00197*** (5.23)	0.0017*** (4.49)
BOARD		-0.0006* (-1.67)	-0.0005 (-1.42)		-0.0006* (-1.66)	-0.0005 (-1.43)		-0.0006* (-1.66)	-0.0005 (-1.43)		-0.0006* (-1.66)	-0.0005 (-1.43)
PLEDGE		-0.00003 (-0.72)	-0.00004 (-0.87)		-0.00003 (-0.72)	-0.00004 (-0.87)		-0.00003 (-0.73)	-0.00004 (-0.88)		-0.00003 (-0.73)	-0.00004 (-0.88)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. of Obs.	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684
Adj. R-square	0.0726	0.0795	0.1914	0.0727	0.0796	0.1911	0.0728	0.0797	0.1907	0.0729	0.0798	0.1904
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

This table reports pooled OLS estimation results of regression analysis relating firm's cost of equity (computed by Gordon model with hypothesized value of constant growth rate as 4%, 5%, 6% and 7%) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 4 Regression Results of the Effects of CSR on Cost of Equity (Cont.) (g: 8%~10%)

Explanatory Variables	Explained Variable								
	COE (g=8%)			COE (g=9%)			COE (g=10%)		
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	0.0990*** (5.10)	0.0928*** (4.41)	0.0942*** (4.53)	0.1091*** (5.61)	0.1029*** (4.88)	0.1045*** (5.02)	0.1192*** (6.13)	0.1130*** (5.36)	0.1147*** (5.50)
CSR_D	-0.0066** (-2.09)	-0.0070** (-2.21)	-0.0004 (-0.14)	-0.0066** (-2.08)	-0.0069** (-2.20)	-0.0004 (-0.14)	-0.0066** (-2.08)	-0.0069** (-2.19)	-0.0004 (-0.14)
SIZE	0.0030*** (3.55)	0.0032*** (3.22)	0.0029*** (3.05)	0.0030*** (3.55)	0.0032*** (3.22)	0.0029*** (3.06)	0.0030*** (3.54)	0.0032*** (3.22)	0.0029*** (3.06)
BTM	-0.0146*** (-6.79)	-0.0135*** (-6.55)	-0.0151*** (-6.26)	-0.0146*** (-6.79)	-0.0135*** (-6.55)	-0.0151*** (-6.26)	-0.0146*** (-6.79)	-0.0136*** (-6.55)	-0.0151*** (-6.26)
LEV	-0.0068 (-1.13)	-0.0069 (-1.14)	-0.0190*** (-3.23)	-0.0068 (-1.13)	-0.0069 (-1.14)	-0.0190*** (-3.23)	-0.0068 (-1.14)	-0.0069 (-1.15)	-0.0190*** (-3.23)
BETA	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0193*** (-6.57)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0193*** (-6.57)	-0.0242*** (-8.45)	-0.0242*** (-8.22)	-0.0194*** (-6.58)
INSTHOLD		0.0001** (2.19)	0.0001** (2.39)		0.0001** (2.19)	0.0001** (2.39)		0.0001** (2.19)	0.0001** (2.39)
MANHOLD		0.00197*** (5.23)	0.0017*** (4.49)		0.00197*** (5.22)	0.0017*** (4.49)		0.00197*** (5.22)	0.0017*** (4.49)
BOARD		-0.0006* (-1.66)	-0.0005 (-1.43)		-0.0006* (-1.66)	-0.0005 (-1.43)		-0.0006* (-1.66)	-0.0005 (-1.44)
PLEDGE		-0.00003 (-0.74)	-0.00004 (-0.88)		-0.00003 (-0.74)	-0.00004 (-0.88)		-0.00003 (-0.75)	-0.00004 (-0.89)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. of Obs.	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684
Adj. R-square	0.0730	0.0798	0.1900	0.0731	0.0799	0.1897	0.0731	0.0800	0.1894
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

This table reports pooled OLS estimation results of regression analysis relating firm's cost of equity (computed by Gordon model with hypothesized value of constant growth rate as 8%, 9%, and 10%) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 5 Regression Results of the Effects of CSR on Cost of Equity (CAPM)

Explanatory Variables	Explained Variable		
	<i>COE</i> (CAPM)		
	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-0.5397*** (-5.34)	-0.8695*** (-7.94)	-0.3624*** (-10.29)
<i>CSR_D</i>	-0.0997*** (-3.46)	-0.0812*** (-2.84)	-0.0043 (-0.53)
<i>SIZE</i>	0.0295*** (6.56)	0.0505*** (9.60)	0.0047*** (2.84)
<i>BTM</i>	-0.0592*** (-6.62)	-0.0586*** (-6.39)	-0.0016 (-0.56)
<i>LEV</i>	0.0705** (2.38)	0.0817*** (2.75)	-0.0082 (-0.79)
<i>BETA</i>	-0.0375*** (-2.79)	-0.0660*** (-4.61)	0.0766*** (9.09)
<i>INSTHOLD</i>		-0.0022*** (-8.37)	-0.0001 (-1.31)
<i>MANHOLD</i>		-0.0020 (-1.05)	0.00005 (0.09)
<i>BOARD</i>		-0.0044** (-2.09)	-0.0003 (-0.37)
<i>PLEDGE</i>		-0.000003 (-0.01)	0.00002 (0.23)
Yearly & Ind. Dummies	<i>NO</i>	<i>NO</i>	<i>YES</i>
No. of Obs.	4,703	4,691	4,691
Adj. R-square	0.0503	0.0664	0.9085
Prob. > F	0.0000	0.0000	0.0000

Note:

This table reports pooled OLS estimation results of regression analysis relating firm's cost of equity (computed by CAPM) to CSR dummy and control factors. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 6 Regression Results of the Effects of CSR on Cost of Bank Loan

Explanatory Variables	Explained Variables											
	<i>LOANR_MI</i>				<i>LOANR_MA</i>				<i>LOANR_A</i>			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Intercept	4.0953*** (13.96)	2.6399*** (36.98)	4.2093*** (13.59)	2.9491*** (10.30)	3.8025*** (11.93)	3.0061*** (37.91)	3.5659*** (10.62)	1.9646*** (6.55)	3.9446*** (13.38)	2.8168*** (38.67)	3.8990*** (12.58)	2.4667*** (8.91)
<i>CSR_D</i>	-0.1666 (-1.51)	-0.4381*** (-4.13)	-0.1479 (-1.33)	-0.0512 (-0.66)	-0.3125*** (-2.60)	-0.4782*** (-4.11)	-0.2830** (-2.34)	-0.1922** (-2.31)	-0.2497** (-2.22)	-0.4703*** (-4.31)	-0.2259** (-2.00)	-0.1404* (-1.80)
<i>SIZE</i>	-0.1360*** (-7.56)		-0.1469*** (-7.00)	-0.1237*** (-6.66)	-0.1015*** (-5.21)		-0.0805*** (-3.56)	-0.0548*** (-2.89)	-0.1182*** (-6.55)		-0.1145*** (-5.48)	-0.0901*** (-5.17)
<i>LEV</i>	1.2122*** (3.19)		1.0950*** (2.84)	0.2673 (0.73)	1.2543*** (2.89)		0.9366* (2.12)	0.1774 (0.45)	1.2335*** (3.15)		1.0236* (2.56)	0.2276 (0.64)
<i>BTM</i>	-120.14*** (-3.16)		-108.43*** (-2.81)	-25.942 (-0.71)	-124.25*** (-2.86)		-92.472** (-2.09)	-16.792 (-0.43)	-122.23*** (-3.12)		-101.25** (-2.53)	-21.895 (-0.61)
<i>LD/E</i>	-0.0526*** (-3.32)		-0.0562*** (-2.96)	-0.0221 (-1.14)	-0.0788*** (-3.05)		-0.0861*** (-2.98)	-0.0572* (-1.78)	-0.0646*** (-3.25)		-0.0698*** (-3.02)	-0.0387 (-1.57)
<i>EBIT/TA</i>	0.0269 (0.05)		-0.1111 (-0.20)	0.4946 (0.85)	-0.8201 (-1.38)		-0.7448 (-1.25)	0.1184 (0.19)	-0.4139 (-0.76)		-0.4547 (-0.83)	0.2769 (0.48)
<i>RE/TA</i>	-0.5819*** (-3.04)		-0.6507*** (-3.43)	-0.4567** (-2.58)	-0.8096*** (-3.61)		-0.8246*** (-3.71)	-0.6012*** (-2.95)	-0.7053*** (-3.45)		-0.7503*** (-3.71)	-0.5408*** (-2.90)
<i>ZSCORE</i>	0.1282* (1.75)		0.1845** (2.47)	0.0469 (0.74)	0.2230*** (2.85)		0.2324*** (2.87)	0.0722 (1.13)	0.1804** (2.51)		0.2158*** (2.92)	0.0666 (1.14)
<i>BOARD</i>		-0.0251*** (-2.93)	0.0024 (0.27)	0.0002 (0.03)		-0.0214** (-2.25)	-0.0009 (-0.09)	-0.0016 (-0.19)		-0.0228*** (-2.62)	0.0010 (0.11)	-0.0004 (-0.06)
<i>MANHOLD</i>		-0.0138* (-1.91)	-0.0160** (-2.20)	-0.0246*** (-4.27)		-0.0063 (-0.73)	-0.0067 (-0.75)	-0.0204*** (-2.76)		-0.0104 (-1.40)	-0.0122 (-1.60)	-0.0237*** (-3.93)
<i>PLEDGE</i>		0.0034*** (3.75)	0.0039*** (4.23)	0.0025*** (3.51)		0.0020** (2.09)	0.0021** (2.10)	0.0007 (0.89)		0.0027*** (2.94)	0.0030*** (3.25)	0.0016** (2.27)
<i>INSTHOLD</i>		-0.0041*** (-4.57)	-0.0003 (-0.33)	-0.0015 (-1.61)		-0.0060*** (-5.99)	-0.0035*** (-3.11)	-0.0045*** (-4.52)		-0.0050*** (-5.35)	-0.0019* (-1.76)	-0.0029*** (-3.16)
Ind.&Year Dummies	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>
Num. of Obs.	3,828	3,998	3,827	3,827	3,823	3,992	3,822	3,822	3,834	4,004	3,833	3,833
R-square	0.0795	0.0210	0.0848	0.4336	0.0714	0.0213	0.0750	0.4272	0.0793	0.0219	0.0829	0.4552
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

This table reports pooled OLS estimation results of regression analysis relating firm's cost of bank loan (measured by *LOANR_MI*, *LOANR_MA* and *LOANR_A*) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 7 Regression Results of the Effects of CSR on Cost of Equity (High-Growth versus Non-High-Growth Samples)

Explanatory Variables	Explained Variables					
	Panel A. High-growth Samples COE (CAPM)			Panel B. Non-High-growth Samples COE (CAPM)		
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-0.8107*** (-5.46)	-1.2914*** (-7.77)	-0.3742*** (-8.27)	-0.2023 (-1.51)	-0.4454*** (-3.09)	-0.3001*** (-5.47)
CSR_D	-0.1612*** (-3.90)	-0.1318*** (-3.24)	-0.0074 (-0.69)	-0.0391 (-0.98)	-0.0262 (-0.65)	-0.0065 (-0.56)
SIZE	0.0440*** (6.59)	0.0728*** (9.11)	0.0039* (1.71)	0.0127** (2.12)	0.0281*** (4.10)	0.0025 (1.03)
BTM	-0.0676*** (-3.93)	-0.0649*** (-3.85)	0.0024 (0.70)	-0.0553*** (-5.74)	-0.0562*** (-5.37)	-0.0058 (-1.24)
LEV	0.0779* (1.67)	0.0802* (1.72)	-0.0238* (-1.70)	0.0443 (1.17)	0.0558 (1.45)	-0.0013 (-0.09)
BETA	-0.0906*** (-4.17)	-0.1123*** (-4.91)	0.0766*** (6.00)	0.0185 (0.90)	-0.0052 (-0.25)	0.0830*** (6.70)
INSTHOLD		-0.0031*** (-7.36)	-0.0001 (-0.69)		-0.0016*** (-4.78)	-0.0009 (-0.75)
MANHOLD		-0.0009 (-0.37)	0.00003 (0.05)		-0.0013 (-0.40)	-0.0002 (-0.20)
BOARD		-0.0049 (-1.18)	0.0004 (0.32)		-0.0028 (-1.15)	-0.0002 (-0.21)
PLEDGE		-0.0003 (-0.74)	-0.0001 (-1.04)		0.0001 (0.38)	0.0001 (1.14)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES
Num. of Obs.	2,298	2,298	2,298	2,405	2,393	2,393
R-square	0.0742	0.0974	0.9305	0.0337	0.0444	0.8917
Prob. > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

Based on high-growth samples, this table reports pooled OLS estimation results of regression analysis relating firm's cost of equity (computed by CAPM) to CSR dummy and control factors. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 8 Regression Results of the Effects of CSR on Cost of Bank Loan (High-Growth Samples)

Explanatory Variables	Explained Variables											
	<i>LOANR_MI</i>				<i>LOANRA_MA</i>				<i>LOANR_A</i>			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Intercept	2.5349*** (6.32)	2.5379*** (21.58)	2.9706*** (6.99)	2.0688*** (5.97)	2.2686*** (5.11)	2.9850*** (22.23)	2.1357*** (4.52)	1.0802*** (2.91)	2.4134*** (5.97)	2.7532*** (22.93)	2.6044*** (6.10)	1.6164*** (4.90)
<i>CSR_D</i>	-0.3523* (-1.82)	-0.4794** (-2.51)	-0.3571* (-1.82)	-0.1634 (-1.18)	-0.5497*** (-2.60)	-0.5318** (-2.55)	-0.5209** (-2.44)	-0.3055** (-2.12)	-0.4527** (-2.26)	-0.5160*** (-2.61)	-0.4433** (-2.19)	-0.2346* (-1.71)
<i>SIZE</i>	-0.0552** (-2.19)		-0.0753** (-2.49)	-0.0489** (-2.03)	-0.0318 (-1.13)		-0.0064 (-0.19)	0.0204 (0.79)	-0.0443* (-1.73)		-0.0449 (-1.48)	-0.185815 (-0.81)
<i>LEV</i>	-0.3172 (-0.60)		-0.0151 (-0.03)	0.2293 (0.46)	-0.5114 (-0.90)		-0.5828 (-1.01)	-0.2776 (-0.54)	-0.4487 (-0.87)		-0.3068 (-0.59)	-0.0317 (-0.07)
<i>BTM</i>	32.674 (0.62)		2.3979 (0.05)	-22.426 (-0.45)	52.854 (0.93)		59.947 (1.04)	28.971 (0.56)	46.194 (0.89)		31.943 (0.62)	4.0356 (0.09)
<i>LD/E</i>	-0.0189* (-1.81)		-0.0124 (-1.18)	0.0127 (1.21)	-0.0728** (-2.44)		-0.0727** (-2.48)	-0.0410 (-1.32)	-0.0456*** (-2.89)		-0.0419*** (-2.79)	-0.0139 (-0.84)
<i>EBIT/TA</i>	-1.3927** (-2.28)		-1.4753* (-2.43)	-0.9572* (-1.91)	-1.7531** (-2.28)		-1.6735** (-2.17)	-1.0433 (-1.61)	-1.5732** (-2.47)		-1.5854** (-2.47)	-1.0007* (-1.94)
<i>RE/TA</i>	-0.7297*** (-4.02)		-0.7554*** (-4.15)	-0.45515*** (-3.30)	-0.7316*** (-3.22)		-0.7303*** (-3.17)	-0.3802** (-2.21)	-0.7357*** (-3.70)		-0.7504*** (-3.74)	-0.4203** (-2.86)
<i>ZSCORE</i>	0.3444*** (3.59)		0.3709*** (3.85)	0.1450** (1.97)	0.2968*** (2.66)		0.2866** (2.52)	0.0276 (0.34)	0.3243*** (3.29)		0.3354*** (3.37)	0.0891 (1.29)
<i>BOARD</i>		-0.0546*** (-3.34)	-0.0321* (-1.78)	-0.0267* (-1.94)		-0.0487*** (-2.71)	-0.0288 (-1.44)	-0.0209 (-1.36)		-0.0508*** (-3.12)	-0.0294* (-1.65)	-0.0217* (-1.64)
<i>MANHOLD</i>		0.0006 (0.06)	-0.0051 (-0.59)	-0.0167** (-2.49)		-0.0006 (-0.06)	-0.0002 (-0.02)	-0.0144* (-1.68)		4.6*E ⁻⁵ (0.01)	-0.0032 (-0.36)	-0.0156** (-2.27)
<i>PLEDGE</i>		0.0012 (0.77)	0.0024 (1.53)	0.0027** (2.39)		-0.0010 (-0.59)	-0.0004 (-0.23)	-0.0001 (-0.10)		-2.52*E ⁻⁵ (-0.02)	0.0009 (0.58)	0.0012 (1.07)
<i>INSTHOLD</i>		0.0014 (0.99)	0.0036** (2.27)	0.0023* (1.82)		-0.0012 (-0.77)	-0.0014 (-0.79)	-0.0028** (-2.01)		0.0003 (0.19)	0.0014 (0.85)	-0.0001 (-0.05)
Ind.&Year Dummies	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Num. of Obs.	1717	1838	1717	1717	1714	1834	1714	1714	1720	1840	1720	1720
R-square	0.0439	0.0134	0.0503	0.4687	0.0608	0.0121	0.0624	0.4767	0.0551	0.0129	0.0574	0.5048
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0006	0.0000	0.0000

Note:

Based on high-growth samples, this table reports pooled OLS estimation results of regression analysis relating firm's cost of bank loan (measured by *LOANR_MI*, *LOANR_MA* and *LOANR_A*) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 9 Regression Results of Effects of CSR on Cost of Bank Loan (Non-High-Growth Samples)

Explanatory Variables	Explained Variables											
	<i>LOANR_MI</i>				<i>LOANR_MA</i>				<i>LOANR_A</i>			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Intercept	5.3264*** (13.33)	2.8235*** (29.99)	5.3866*** (12.76)	4.6474*** (11.30)	5.2307*** (12.67)	3.1052*** (30.55)	5.0952*** (11.83)	3.8590*** (9.53)	5.2605*** (13.47)	2.9568*** (31.08)	5.2445*** (12.78)	4.2412*** (11.02)
<i>CSR_D</i>	-0.0116 (-0.10)	-0.4210*** (-3.79)	0.0082 (0.07)	0.0390 (0.56)	-0.1020 (-0.83)	-0.4569*** (-3.74)	-0.0826 (-0.65)	-0.0645 (-0.80)	-0.0750 (-0.66)	-0.4559*** (-4.02)	-0.0580 (-0.49)	-0.0511 (-0.69)
<i>SIZE</i>	-0.1875*** (-7.68)		-0.2003*** (-7.12)	-0.2142*** (-7.84)	-0.1578*** (-6.41)		-0.1523*** (-5.41)	-0.1508*** (-5.90)	-0.1708*** (-7.26)		-0.1765*** (-6.55)	-0.1812*** (-7.40)
<i>LEV</i>	3.1165*** (6.45)		2.7715*** (5.42)	1.0160* (1.93)	3.5349*** (6.99)		3.0554*** (5.72)	1.2018** (2.10)	3.3621*** (6.88)		2.9541*** (5.73)	1.1349** (2.09)
<i>BTM</i>	-310.92*** (-6.43)		-276.36*** (-5.40)	-100.90* (-1.92)	-353.02*** (-6.97)		-305.01*** (-5.70)	-119.67** (-2.09)	-335.64*** (-6.87)		-295.78*** (-5.71)	-112.90** (-2.08)
<i>LD/E</i>	-0.0978*** (-3.31)		-0.1261*** (-4.05)	-0.0831** (-2.49)	-0.0978*** (-3.35)		-0.1260*** (-4.06)	-0.0988*** (-2.84)	-0.0954*** (-3.33)		-0.1240*** (-4.08)	-0.0893*** (-2.66)
<i>EBIT/TA</i>	0.5745 (0.81)		0.5815 (0.81)	1.7647** (2.30)	0.0114 (0.02)		0.0866 (0.13)	1.3592** (1.99)	0.2641 (0.40)		0.2967 (0.44)	1.4840** (2.14)
<i>RE/TA</i>	-0.8335** (-2.54)		-0.8050** (-2.53)	-0.5843* (-1.66)	-1.0579*** (-3.71)		-1.0115*** (-3.63)	-0.8800*** (-2.87)	-0.9587*** (-3.23)		-0.9225*** (-3.21)	-0.7560** (-2.38)
<i>ZSCORE</i>	-0.0047 (-0.04)		0.0185 (0.17)	-0.0948 (-0.90)	0.0954 (0.89)		0.1007 (0.92)	0.0241 (0.24)	0.0505 (0.50)		0.0672 (0.65)	-0.0219 (-0.23)
<i>BOARD</i>		-0.0144 (-1.45)	0.0228** (2.24)	0.0230*** (2.61)		-0.0097 (-0.87)	0.0193* (1.67)	0.0192* (1.87)		-0.0113 (-1.12)	0.0219** (2.09)	0.0211** (2.32)
<i>MANHOLD</i>		-0.0094 (-0.72)	-0.0102 (-0.76)	-0.0237** (-2.17)		-0.0008 (-0.05)	0.0016 (0.10)	-0.0136* (-0.98)		-0.0075 (-0.54)	-0.0072 (-0.52)	-0.0222* (-1.94)
<i>PLEDGE</i>		0.0039*** (3.46)	0.0039*** (3.50)	0.0025*** (2.75)		0.0033*** (2.78)	0.0032*** (1.77)	0.0017* (1.77)		0.0036*** (3.25)	0.0036*** (3.23)	0.0022*** (2.40)
<i>INSTHOLD</i>		-0.0089*** (-7.37)	-0.0031** (-2.29)	-0.0041*** (-3.13)		-0.0101*** (-7.65)	-0.0048*** (-3.20)	-0.0057*** (-4.08)		-0.0094*** (-7.69)	-0.0039*** (-2.81)	-0.0048*** (-3.71)
Ind.&Year Dummies	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Num. of Obs.	2111	2160	2110	2110	2109	2158	2108	2108	2114	2164	2113	2113
R-square	0.1477	0.0441	0.1567	0.4412	0.1179	0.0433	0.1268	0.4182	0.1393	0.0459	0.1486	0.4499
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

Based on non-high-growth samples, this table reports pooled OLS estimation results of regression analysis relating firm's cost of bank loan (measured by *LOANR_MI*, *LOANR_MA* and *LOANR_A*) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 10 Two-stage Estimation Results of the Effects of CSR on Cost of Equity (g=0%, 1% and 2%)

Explanatory Variable	First Stage	Second Stage Explained Variable			First Stage	Second Stage Explained Variable			First Stage	Second Stage Explained Variable		
		COE (g=0%)				COE (g=1%)				COE (g=2%)		
		Spec. (1)	Spec. (2)	Spec. (3)		Spec. (1)	Spec. (2)	Spec. (3)		Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-10.7092*** (-20.49)	0.0435* (1.67)	0.0350 (1.27)	0.0350 (1.32)	-10.7092*** (-20.49)	0.0486* (1.86)	0.0401 (1.46)	0.0401 (1.51)	-10.7092*** (-20.49)	0.0639** (2.45)	0.0554** (2.01)	0.0554** (2.09)
CSR_D		-0.0246* (-1.88)	-0.0230* (-1.75)	-0.0194 (-1.55)		-0.0245* (-1.88)	-0.0229* (-1.75)	-0.0195 (-1.55)		-0.0244* (-1.87)	-0.0229* (-1.74)	-0.0196 (-1.56)
SIZE		0.0022* (1.85)	0.0024* (1.93)	0.0020 (1.61)		0.0022* (1.84)	0.0025* (1.92)	0.0020 (1.61)		0.0022* (1.84)	0.0025* (1.92)	0.0020 (1.63)
BTM		-0.0163*** (-9.09)	-0.0151*** (-8.20)	-0.0167*** (-9.32)		-0.0164*** (-9.09)	-0.0151*** (-8.21)	-0.0167*** (-9.32)		-0.0164*** (-9.11)	-0.0152*** (-8.22)	-0.0167*** (-9.33)
LEV		0.0038 (0.62)	0.0041 (0.66)	-0.0122** (-1.97)		0.0038 (0.62)	0.0041 (0.66)	-0.0122** (-1.98)		0.0038 (0.61)	0.0041 (0.65)	-0.0123** (-1.98)
BETA		-0.0271*** (-8.73)	-0.0278*** (-8.77)	-0.0235*** (-7.37)		-0.0271*** (-8.73)	-0.0278*** (-8.77)	-0.0235*** (-7.37)		-0.0271*** (-8.72)	-0.0278*** (-8.77)	-0.0236*** (-7.39)
INSTHOLD			0.00006 (1.16)	0.00008* (1.65)			0.00006 (1.16)	0.00008* (1.65)			0.00006 (1.16)	0.00008* (1.65)
MANHOLD			0.0017*** (4.09)	0.0013*** (3.14)			0.0017*** (4.08)	0.0013*** (3.14)			0.0017*** (4.08)	0.0013*** (3.14)
BOARD			-0.0004 (-1.03)	-0.0003 (-0.79)			-0.0004 (-1.03)	-0.0003 (-0.79)			-0.0004 (-1.03)	-0.0003 (-0.79)
PLEDGE			-0.00003 (-0.55)	-0.00002 (-0.34)			-0.00003 (-0.55)	-0.00002 (-0.34)			-0.00003 (-0.56)	-0.00002 (-0.35)
LPROFIT	0.2273** (2.19)				0.2273** (2.19)				0.2273** (2.19)			
LSIZE	1.1191*** (8.73)				1.1191*** (8.73)				1.1191*** (8.73)			
LLEV	-0.8484*** (-3.03)				-0.8484*** (-3.03)				-0.8484*** (-3.03)			
Yearly & Ind. Dummies		NO	NO	YES		NO	NO	YES		NO	NO	YES
No. of Obs.		3,900	3,891	3,891		3,900	3,891	3,891		3,900	3,891	3,891
Chi-square		208.54	227.14	922.76		208.65	227.23	921.02		208.95	227.50	915.80

Note:

This table reports two-stage estimation results. The first stage employed *LSIZE*, *LLEV* and *LPROFIT* as determinants of being CSR-firms. The second stage is estimation of regression relating firm's cost of equity (computed by Gordon model with hypothesized value of constant growth rate as 0%, 1% and 2%) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2004 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 10 Two-stage Estimation Results of the Effects of CSR on Cost of Equity (Cont.) (g=5%, 8% and 10%)

Explanatory Variable	First Stage	Second Stage			First Stage	Second Stage			First Stage	Second Stage		
		Explained Variable				Explained Variable				Explained Variable		
		COE (g=5%)				COE (g=8%)				COE (g=10%)		
Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)				
Intercept	-10.7092*** (-20.49)	0.0945*** (3.62)	0.0860*** (3.12)	0.0861*** (3.24)	-10.7092*** (-20.49)	0.1252*** (4.79)	0.1167*** (4.23)	0.1168*** (4.38)	-10.7092*** (-20.49)	0.1456*** (5.57)	0.1371*** (4.97)	0.1372*** (5.14)
CSR_D		-0.0243* (-1.86)	-0.0227* (-1.73)	-0.0199 (-1.58)		-0.0241* (-1.85)	-0.0225* (-1.71)	-0.0201 (-1.60)		-0.0241* (-1.84)	-0.0224* (-1.71)	-0.0203 (-1.61)
SIZE		0.0022* (1.82)	0.0025* (1.90)	0.0021* (1.65)		0.0021* (1.81)	0.0024* (1.89)	0.0021* (1.67)		0.0021* (1.80)	0.0024* (1.88)	0.0021* (1.69)
BTM		-0.0164*** (-9.14)	-0.0152*** (-8.25)	-0.0168*** (-9.34)		-0.0165*** (-9.17)	-0.0153*** (-8.28)	-0.0168*** (-9.34)		-0.0166*** (-9.18)	-0.0153*** (-8.29)	-0.0168*** (-9.35)
LEV		0.0037 (0.60)	0.0040 (0.65)	-0.0123** (-1.99)		0.0037 (0.59)	0.0040 (0.64)	-0.0124** (-2.00)		0.0037 (0.59)	0.0040 (0.63)	-0.0125** (-2.01)
BETA		-0.0271*** (-8.72)	-0.0278*** (-8.76)	-0.0237*** (-7.42)		-0.0271*** (-8.71)	-0.0278*** (-8.76)	-0.0238*** (-7.44)		-0.0271*** (-8.71)	-0.0278*** (-8.75)	-0.0239*** (-7.46)
INSTHOLD			0.00006 (1.16)	0.00008* (1.64)		0.00006 (1.16)	0.00006 (1.16)	0.00008* (1.63)		0.00006 (1.16)	0.00006 (1.16)	0.00008* (1.63)
MANHOLD			0.0017*** (4.07)	0.0013*** (3.14)		0.0017*** (4.05)	0.0017*** (4.05)	0.0013*** (3.14)		0.0017*** (4.04)	0.0017*** (4.04)	0.0013*** (3.14)
BOARD			-0.0004 (-1.03)	-0.0003 (-0.79)		-0.0004 (-1.02)	-0.0004 (-1.02)	-0.0003 (-0.80)		-0.0004 (-1.02)	-0.0004 (-1.02)	-0.0003 (-0.80)
PLEDGE			-0.00003 (-0.58)	-0.00002 (-0.35)		-0.00003 (-0.60)	-0.00003 (-0.60)	-0.00002 (-0.36)		-0.00003 (-0.61)	-0.00003 (-0.61)	-0.00002 (-0.37)
LPROFIT	0.2273** (2.19)				0.2273** (2.19)				0.2273** (2.19)			
LSIZE	1.1191*** (8.73)				1.1191*** (8.73)				1.1191*** (8.73)			
LLEV	-0.8484*** (-3.03)				-0.8484*** (-3.03)				-0.8484*** (-3.03)			
Yearly & Ind. Dummies		NO	NO	YES		NO	NO	YES		NO	NO	YES
No. of Obs.		3,900	3,891	3,891		3,900	3,891	3,891		3,900	3,891	3,891
Chi-square		209.51	227.99	905.78		210.00	228.40	896.15		210.32	228.67	890.05

Note:

This table reports two-stage estimation results. The first stage employed *LSIZE*, *LLEV* and *LPROFIT* as determinants of being CSR-firms. The second stage is estimation of regression relating firm's cost of equity (computed by Gordon model with hypothesized value of constant growth rate as 5%, 8% and 10%) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2004 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 11 Two-stage Estimation Results of the Effects of CSR on Cost of Equity (CAPM)

Explanatory Variable	First Stage	Second Stage		
		Explained Variable		
		<i>COE</i> (CAPM)		
		Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-10.7110*** (-20.48)	-1.4608*** (-10.45)	-1.7960*** (-12.24)	-0.4173*** (-8.61)
<i>CSR_D</i>		-0.7641*** (-11.25)	-0.7372*** (-11.11)	-0.0559** (-2.45)
<i>SIZE</i>		0.0733*** (11.62)	0.0940*** (13.72)	0.0076*** (3.37)
<i>BTM</i>		-0.0847*** (-8.37)	-0.0844*** (-8.18)	-0.0018 (-0.54)
<i>LEV</i>		0.0168 (0.47)	0.0185 (0.52)	-0.0048 (-0.43)
<i>BETA</i>		-0.0713*** (-4.20)	-0.0948*** (-5.48)	0.0625*** (10.73)
<i>INSTHOLD</i>			-0.0021*** (-7.35)	-0.00008 (-0.93)
<i>MANHOLD</i>			-0.0009 (-0.38)	0.0002 (0.33)
<i>BOARD</i>			-0.0035 (-1.61)	-0.0007 (-1.01)
<i>PLEDGE</i>			-0.000007 (-0.02)	-0.00003 (-0.28)
<i>LPROFIT</i>	0.2272** (2.19)			
<i>LSIZE</i>	1.1198*** (8.74)			
<i>LLEV</i>	-0.8584*** (-3.07)			
Yearly & Ind. Dummies		<i>NO</i>	<i>NO</i>	<i>YES</i>
No. of Obs.		3,905	3,896	3,896
Chi-square		433.92	498.28	40106.69

Note:

This table reports two-stage estimation results. The first stage employed *LSIZE*, *LLEV* and *LPROFIT* as determinants of being CSR-firms. The second stage is estimation of regression relating firm's cost of equity (computed by CAPM) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2004 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 12 Regression Results of the Effects of CSR on Cost of Bank Loan (Two-stage Estimation)

Heckman's Two-stage Estimation														
First Stage			Second Stage											
Explanatory Variables	Explained Variables	Explanatory Variables	<i>LOANR_MI</i>				<i>LOANR_MA</i>				<i>LOANR_A</i>			
	<i>CSR_D</i>		Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Constant	-11.423*** (-17.63)	Intercept	4.0640*** (13.8)	2.6055*** (37.31)	4.7451*** (13.99)	3.2998*** (10.56)	4.1193*** (10.98)	3.0051*** (38.19)	3.9581*** (10.31)	2.1261*** (5.99)	4.3948*** (12.89)	2.8012*** (39.28)	4.3989*** (12.62)	2.7659*** (8.75)
<i>LSIZE</i>	0.5710*** (15.11)	<i>CSR_D</i>	0.5723* (1.79)	-1.0260*** (-3.93)	0.6539** (2.04)	0.4859* (1.90)	0.1481 (0.41)	-0.7034** (-2.39)	0.3043 (0.83)	0.0558 (0.19)	0.4028 (1.22)	-0.8648*** (-3.23)	0.5197 (1.58)	0.3171 (1.23)
<i>LPROFIT</i>	0.0176*** (3.24)	<i>SIZE</i>	-0.1702*** (-8.00)	-0.1820*** (-8.02)	-0.1820*** (-8.02)	-0.1472*** (-7.94)	-0.1227** (-5.10)	-0.1061*** (-4.13)	-0.0656*** (-3.12)	-0.1484** (-6.78)	-0.1472*** (-6.32)	-0.1472*** (-6.32)	-0.1102*** (-5.90)	-0.1102*** (-5.90)
<i>LLEV</i>	-0.1635* (-1.86)	<i>LEV</i>	1.2307*** (4.19)	1.0978*** (3.62)	1.0978*** (3.62)	0.2713 (1.06)	1.2677*** (3.83)	0.9405*** (2.75)	0.1804 (0.62)	1.2511*** (4.14)	1.2511*** (4.14)	1.0276*** (3.29)	0.2316 (0.90)	0.2316 (0.90)
		<i>BTM</i>	-121.96*** (-4.14)	-108.67*** (-3.58)	-108.67*** (-3.58)	-26.326 (-1.03)	-125.57** (-3.78)	-92.840*** (-2.71)	-17.086 (-0.59)	-123.97*** (-4.09)	-123.97*** (-4.09)	-101.62*** (-3.25)	-22.277 (-0.86)	-22.277 (-0.86)
		<i>LD/E</i>	-0.0524* (-1.87)	-0.0562** (-2.00)	-0.0562** (-2.00)	-0.0219 (-0.98)	-0.0786** (-2.50)	-0.0861*** (-2.73)	-0.0571** (-2.28)	-0.0644** (-2.24)	-0.0644** (-2.24)	-0.0698** (-2.42)	-0.0385* (-1.72)	-0.0385* (-1.72)
		<i>EBIT/TA</i>	0.0714 (0.14)	-0.0591 (-0.12)	-0.0591 (-0.12)	0.5129 (1.27)	-0.7922 (-1.42)	-0.7055 (-1.26)	0.1289 (0.28)	-0.3745 (-0.74)	-0.3745 (-0.74)	-0.4060 (-0.80)	0.2939 (0.72)	0.2939 (0.72)
		<i>RE/TA</i>	-0.5531*** (-4.81)	-0.6209*** (-5.36)	-0.6209*** (-5.36)	-0.4385*** (-4.64)	-0.7917*** (-6.12)	-0.8027*** (-6.15)	-0.5923*** (-5.56)	-0.6798*** (-5.77)	-0.6798*** (-5.77)	-0.7225*** (-6.08)	-0.5250*** (-5.52)	-0.5250*** (-5.52)
		<i>ZSCORE</i>	0.1233** (2.03)	0.1799*** (2.90)	0.1799*** (2.90)	0.0449 (0.87)	0.2198*** (3.22)	0.2287*** (3.27)	0.0708 (1.22)	0.1760*** (2.83)	0.1760*** (2.83)	0.2114*** (3.32)	0.0647 (1.25)	0.0647 (1.25)
		<i>BOARD</i>		-0.0204** (-2.39)	0.0011 (0.13)	-0.0005 (-0.07)		-0.0190** (-1.97)	-0.0019 (-0.20)	-0.0019 (-0.24)		-0.0193** (-2.22)	-4.71*E ⁻⁵ (-0.01)	-0.0010 (-0.14)
		<i>MANHOLD</i>		-0.0151* (-1.91)	-0.0169** (-2.15)	-0.0248*** (-3.87)		-0.0080 (-0.90)	-0.0074 (-0.83)	-0.0205*** (-2.83)		-0.0123 (-1.52)	-0.0131 (-1.62)	-0.0239*** (-3.70)
		<i>PLEDGE</i>		0.0037*** (3.85)	0.0039*** (4.15)	0.0025*** (3.35)		0.0022** (2.06)	0.0021** (1.98)	0.0007 (0.83)		0.0029*** (2.99)	0.0031*** (3.13)	0.0016** (2.15)
		<i>INSTHOLD</i>		-0.0040*** (-4.27)	-0.0005 (-0.54)	-0.0016** (- (2.03)		-0.0066*** (-6.28)	-0.0037*** (-3.32)	-0.0046*** (-5.06)		-0.0052*** (-5.42)	-0.0020** (-2.00)	-0.0030*** (-3.72)
		Ind.&Year Dummies		<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>
		Num. of Obs.		3,826	3,860	3,825	3,825	3,821	3,854	3,820	3,820	3,832	3,866	3,831
		Chi-square		284	88	351	2919	284	85	301	2831	322	89	339
		Prob > chi		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

This table reports two-stage estimation results. The first stage employed *LSIZE*, *LLEV* and *LPROFIT* as determinants of being CSR-firms. The second stage is estimation of regression relating firm's cost of bank loan (measured by *LOANR_MI*, *LOANR_MA* and *LOANR_A*) to CSR dummy (*CSR_D*) and several control variables. Yearly data is ranged from 2004 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote that coefficient is 1%, 5% and 10% significantly different from zero.

Table 13 Regression Results of the Effects of CSR on Corporate Performance

Explanatory Variable	Explained Variable		
	Corporate Performance (EPS)		
	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-6.3098*** (-5.77)	-5.7823*** (-5.80)	-6.0003*** (-6.08)
<i>CSR_D</i>	-0.0489 (-0.14)	-0.4218 (-1.17)	-0.3722 (-1.03)
<i>SIZE</i>	0.7328*** (9.76)	0.5919*** (8.35)	0.6053*** (8.23)
<i>SALESG</i>	0.00003 (1.05)	0.00004* (1.67)	0.00004 (1.55)
<i>RD</i>	-0.0114 (-0.52)	0.0442** (2.02)	0.0051 (0.20)
<i>LEV</i>	-4.0568*** (-10.97)	-3.5385*** (-11.03)	-3.7136*** (-10.89)
<i>AGE</i>	-0.0584*** (-13.00)	-0.0313*** (-7.60)	-0.0235*** (-4.91)
<i>INSTHOLD</i>		0.0412*** (15.60)	0.0412*** (15.61)
<i>MANHOLD</i>		0.1658*** (6.11)	0.1712*** (6.20)
<i>BOARD</i>		-0.1660*** (-6.88)	-0.1709*** (-7.24)
<i>PLEDGE</i>		-0.0189*** (-8.71)	-0.0184*** (-8.54)
Yearly & Ind. Dummies	<i>NO</i>	<i>NO</i>	<i>YES</i>
No. of Obs.	5,074	4,980	4,980
Adj. R-square	0.1070	0.1827	0.2065

Note:

Based on Baron and Kenny (1986), this table reports the estimation results of the first step of identifying cost of capital as mediator between CSR and corporate performance (proxied by *EPS*), regression estimation relating *EPS* to *CSR_D* and several control variables. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 14 Regression Results of the Effects of CSR on Cost of Equity

Explanatory Variable	Explained Variable											
	COE (g=0%)			COE (g=5%)			COE (g=10%)			COE (CAPM)		
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	0.0184 (0.95)	0.0120 (0.57)	0.0119 (0.58)	0.0688*** (3.55)	0.0625*** (2.97)	0.0633*** (3.05)	0.1192*** (6.13)	0.1130*** (5.36)	0.1147*** (5.50)	-0.5397*** (-5.34)	-0.8695*** (-7.94)	-0.3624*** (-10.29)
CSR_D	-0.0068** (-2.14)	-0.0071** (-2.25)	-0.0005 (-0.16)	-0.0067** (-2.11)	-0.0070** (-2.23)	-0.0004 (-0.15)	-0.0066** (-2.08)	-0.0069** (-2.19)	-0.0004 (-0.14)	-0.0997*** (-3.46)	-0.0812*** (-2.84)	-0.0043 (-0.53)
SIZE	0.0030*** (3.56)	0.0032*** (3.24)	0.0029*** (3.02)	0.0030*** (3.55)	0.0032*** (3.23)	0.0029*** (3.04)	0.0030*** (3.54)	0.0032*** (3.22)	0.0029*** (3.06)	0.0295*** (6.56)	0.0505*** (9.60)	0.0047*** (2.84)
BTM	-0.0144*** (-6.79)	-0.0134*** (-6.55)	-0.01497*** (-6.27)	-0.0145*** (-6.79)	-0.0135*** (-6.55)	-0.0150*** (-6.26)	-0.0146*** (-6.79)	-0.0136*** (-6.55)	-0.0151*** (-6.26)	-0.0592*** (-6.62)	-0.0586*** (-6.39)	-0.0016 (-0.56)
LEV	-0.0066 (-1.10)	-0.0067 (-1.11)	-0.0188*** (-3.23)	-0.0067 (-1.12)	-0.0068 (-1.13)	-0.0189*** (-3.23)	-0.0068 (-1.14)	-0.0069 (-1.15)	-0.0190*** (-3.23)	0.0705** (2.38)	0.0817*** (2.75)	-0.0082 (-0.79)
BETA	-0.0241*** (-8.45)	-0.0241*** (-8.22)	-0.0191*** (-6.51)	-0.0241*** (-8.45)	-0.0242*** (-8.22)	-0.0192*** (-6.55)	-0.0242*** (-8.45)	-0.0242*** (-8.22)	-0.0194*** (-6.58)	-0.0375*** (-2.79)	-0.0660*** (-4.61)	0.0766*** (9.09)
INSTHOLD		0.0001** (2.17)	0.0001** (2.41)		0.0001** (2.18)	0.0001** (2.40)		0.0001** (2.19)	0.0001** (2.39)		-0.0022*** (-8.37)	-0.0001 (-1.31)
MANHOLD		0.00196*** (5.24)	0.0017*** (4.48)		0.00197*** (5.23)	0.0017*** (4.49)		0.00197*** (5.22)	0.0017*** (4.49)		-0.0020 (-1.05)	0.00005 (0.09)
BOARD		-0.0006* (-1.67)	-0.0005 (-1.42)		-0.0006* (-1.66)	-0.0005 (-1.43)		-0.0006* (-1.66)	-0.0005 (-1.44)		-0.0044** (-2.09)	-0.0003 (-0.37)
PLEDGE		-0.00003 (-0.69)	-0.00004 (-0.86)		-0.00003 (-0.72)	-0.00004 (-0.87)		-0.00003 (-0.75)	-0.00003 (-0.89)		-0.000003 (-0.01)	0.00002 (0.23)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. of Obs.	4,696	4,684	4,684	4,696	4,684	4,684	4,696	4,684	4,684	4,703	4,691	4,691
Adj. R-square	0.0723	0.0792	0.1929	0.0727	0.0796	0.1911	0.0731	0.0800	0.1894	0.0503	0.0664	0.9085

Note: Based on Baron and Kenny (1986), this table reports the estimation results of the second step of identifying cost of capital as mediator between CSR and corporate performance (proxied by *EPS*), regression estimation relating cost of equity to *CSR_D* and control factors. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 15 Regression Results of the Effects of CSR on Corporate Performance after Controlling Firm's Cost of Equity

Explanatory Variable	Explained Variable: Corporate Performance (EPS)											
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (1)	Spec. (2)	Spec. (3)
Intercept	-7.4026*** (-7.37)	-6.3375*** (-6.52)	-6.3234*** (-6.57)	-8.0904*** (-7.99)	-6.9618*** (-7.14)	-7.0478*** (-7.27)	-8.7826*** (-8.59)	-7.5903*** (-7.73)	-7.7742*** (-7.92)	-7.4165*** (-7.08)	-6.1942*** (-6.12)	-6.1755*** (-5.91)
CSR	-0.0366 (-0.10)	-0.3967 (-1.10)	-0.4239 (-1.18)	-0.0370 (-0.10)	-0.3969 (-1.11)	-0.4248 (-1.18)	-0.0375 (-0.11)	-0.3971 (-1.11)	-0.4257 (-1.18)	-0.0444 (-0.12)	-0.4284 (-1.17)	-0.3679 (-1.00)
COE (g=0%)	13.769*** (13.56)	12.513*** (12.57)	14.049*** (12.61)									
COE (g=5%)				13.822*** (13.62)	12.563*** (12.63)	14.074*** (12.66)						
COE (g=10%)							13.867*** (13.67)	12.604*** (12.69)	14.094*** (12.70)			
COE (CAPM)										0.2818* (1.71)	0.3306** (2.11)	0.4218 (0.87)
SIZE	0.7160*** (10.65)	0.5649*** (8.19)	0.5659*** (7.93)	0.7153*** (10.64)	0.5642*** (8.19)	0.5654*** (7.93)	0.7145*** (10.64)	0.5636*** (8.18)	0.5649*** (7.92)	0.7875*** (11.13)	0.6024*** (8.34)	0.6153*** (8.11)
SALESG	0.0000195 (0.54)	0.00003 (1.06)	0.00002 (0.90)	0.0000195 (0.54)	0.00003 (1.06)	0.00002 (0.90)	0.0000196 (0.54)	0.00003 (1.06)	0.00002 (0.90)	0.00003 (0.93)	0.00004 (1.56)	0.00003 (1.44)
RD	0.0033 (0.16)	0.0610*** (2.80)	0.0342 (1.37)	0.0033 (0.16)	0.0611*** (2.80)	0.0344 (1.37)	0.0034 (0.16)	0.0611*** (2.80)	0.0345 (1.38)	-0.0200 (-0.92)	0.0463** (2.04)	0.0166 (0.64)
LEV	-3.6670*** (-11.80)	-3.0707*** (-9.63)	-3.0304*** (-8.85)	-3.6609*** (-11.78)	-3.0656*** (-9.61)	-3.0258*** (-8.84)	-3.6551*** (-11.76)	-3.0608*** (-9.60)	-3.0214*** (-8.83)	-4.1998*** (-12.95)	-3.4243*** (-10.25)	-3.6502*** (-10.25)
AGE	-0.0460*** (-10.47)	-0.0253*** (-6.20)	-0.0209*** (-4.41)	-0.0460*** (-10.47)	-0.0253*** (-6.21)	-0.0209*** (-4.42)	-0.0460*** (-10.48)	-0.0253*** (-6.22)	-0.0209*** (-4.42)	-0.0521*** (-11.29)	-0.0282*** (-6.62)	-0.0220*** (-4.39)
INSTHOLD		0.0380*** (15.25)	0.0371*** (15.26)		0.0380*** (15.25)	0.0371*** (15.26)		0.0380*** (15.25)	0.0370*** (15.26)		0.0416*** (15.95)	0.0412*** (15.98)
MANHOLD		0.1329*** (4.85)	0.1343*** (4.83)		0.1327*** (4.85)	0.1342*** (4.83)		0.1326*** (4.84)	0.1340*** (4.82)		0.1610*** (5.71)	0.1683*** (5.84)
BOARD		-0.1578*** (-6.74)	-0.1583*** (-6.93)		-0.1576*** (-6.73)	-0.1582*** (-6.93)		-0.1575*** (-6.73)	-0.1581*** (-6.93)		-0.1640*** (-6.75)	-0.1679*** (-7.04)
PLEDGE		-0.0174*** (-8.20)	-0.0163*** (-7.80)		-0.0174*** (-8.19)	-0.0163*** (-7.79)		-0.0174*** (-8.18)	-0.0163*** (-7.79)		-0.0181*** (-8.21)	-0.0176*** (-8.01)
Yearly & Ind. Dummies	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. of obs.	4,795	4,786	4,786	4,795	4,786	4,786	4,795	4,786	4,786	4,695	4,686	4,686
Adj. R-square	0.1677	0.2234	0.2511	0.1682	0.2238	0.2515	0.1687	0.2242	0.2519	0.1175	0.1836	0.2062

Note: Based on Baron and Kenny (1986), this table reports the estimation results of the third step of identifying cost of capital as mediator between CSR and corporate performance (proxied by *EPS*), regression estimation relating *EPS* to *CSR_D*, cost of equity and control factors. Yearly data is ranged from 2005 to 2011. The *t*-statistics (computed by White's heteroskedasticity-consistent standard errors) are shown in the parentheses below estimated coefficients, and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 16 Three-step Identification (Baron and Kenny, 1986) of *LOANR_MI* as Mediator between CSR and Corporate Performance

Explanatory Variables	Explained Variables											
	Panel A. <i>ROA</i>				Panel B. <i>LOANR_MI</i>				Panel C. <i>ROA</i>			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Constant	-1.5606** (-2.17)	0.1057 (0.58)	-0.4925 (-0.62)	-1.3357 (-1.59)	4.0953*** (13.96)	2.6399*** (36.98)	4.2093*** (13.59)	2.9491*** (10.30)	-1.1418 (-1.40)	0.2321 (1.01)	-0.3258 (-0.37)	-1.1040 (-1.12)
<i>CSR_D</i>	0.5025** (2.36)	0.6664*** (3.12)	0.2815 (1.33)	0.5595*** (2.86)	-0.1666 (-1.51)	-0.4381*** (-4.13)	-0.1479 (-1.33)	-0.0512 (-0.66)	0.5509** (2.12)	0.5563** (2.14)	0.3269 (1.24)	0.5599** (2.28)
<i>LOANR_MI</i>									-0.1064** (-2.23)	-0.1801*** (-3.59)	-0.0799* (-1.71)	-0.1260** (-2.09)
<i>RD</i>	-0.0231*** (-4.08)		-0.0211*** (-3.95)	-0.0213*** (-4.03)					-0.0668*** (-5.22)		-0.0628*** (-5.52)	-0.0590*** (-5.75)
<i>SALESG.</i>	4.77*E7*** (9.5)		7.50*E7*** (11.13)	4.48*E7*** (4.7)					4.91*E7*** (9.55)		7.32*E7*** (10.13)	3.63*E7*** (3.5)
<i>AGE</i>	-0.0460*** (-12.08)		-0.032*** (-7.63)	-0.0312*** (-5.92)					-0.0363*** (-8.32)		-0.0229*** (-4.69)	-0.0231*** (-4.02)
<i>SIZE</i>	0.3984*** (8.6)		0.2270*** (4.18)	0.2612*** (4.65)	-0.1360*** (-7.56)		-0.1469*** (-7.00)	-0.1237*** (-6.66)	0.3724*** (7.32)		0.2185*** (3.65)	0.2473*** (4.05)
<i>LEV</i>	-0.0457*** (-13.47)		-0.0409*** (-11.84)	-0.0418*** (-11.55)	1.2122*** (3.19)		1.0950*** (2.84)	0.2673 (0.73)	-0.0467*** (-11.72)		-0.0433*** (-10.71)	-0.0436*** (-10.25)
<i>BTM</i>					-120.14*** (-3.16)		-108.43*** (-2.81)	-25.942 (-0.71)				
<i>LD/E</i>					-0.0526*** (-3.32)		-0.0562*** (-2.96)	-0.0221 (-1.14)				
<i>EBIT/TA</i>					0.0269 (0.05)		-0.1111 (-0.20)	0.4946 (0.85)				
<i>RE/TA</i>					-0.5819*** (-3.04)		-0.6507*** (-3.43)	-0.4567** (-2.58)				
<i>ZSCORE</i>					0.1282* (1.75)		0.1845** (2.47)	0.0469 (0.74)				
<i>BOARD</i>		-0.0144 (-0.76)	-0.0336* (-1.76)	-0.0332* (-1.69)		-0.0251*** (-2.93)	0.0024 (0.27)	0.0002 (0.03)		0.0113 (0.51)	-0.0270 (-1.19)	-0.0337 (-1.47)
<i>MANHOLD</i>		0.1677*** (6.74)	0.1215*** (4.67)	0.1372*** (5.22)		-0.0138* (-1.91)	-0.0160** (-2.20)	-0.0246*** (-4.27)		0.1521*** (5.34)	0.1224*** (4.06)	0.1343*** (4.39)
<i>PLEDGE</i>		-0.0139*** (-4.55)	-0.0090*** (-2.69)	-0.0079** (-2.43)		0.0034*** (3.75)	0.0039*** (4.23)	0.0025*** (3.51)		-0.0101** (-3.04)	-0.0073** (-2.01)	-0.0058 (-1.63)
<i>INSTHOLD</i>		0.0384*** (16.27)	0.0303*** (11.73)	0.0292*** (11.34)		-0.0041*** (-4.57)	-0.0003 (-0.33)	-0.0015 (-1.61)		0.0354*** (13)	0.0284*** (9.57)	0.0282*** (9.51)
Ind. & Year Dummies	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Num. of Obs.	4,846	4,932	4,843	4,843	3,828	3,998	3,827	3,827	3,854	3,933	3,853	3,853
R-square	0.0876	0.0692	0.1189	0.1861	0.0795	0.0210	0.0848	0.4336	0.0853	0.0637	0.1134	0.1869
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:
Based on Baron and Kenny (1986), this table reports the estimation results of the three steps of identifying cost of bank loan (*LOANR_MI*) as mediator between CSR and corporate performance (proxied by *ROA*). Yearly data is ranged from 2005 to 2011. The *t*-statistics are shown in the parentheses and ***, ** and * denote 1%, 5% and 10% significantly different from zero.

Table 17 Three-step Identification (Baron and Kenny, 1986) of *LOANR_MA* as Mediator between CSR and Corporate Performance

Explanatory Variables	Explained Variables											
	Panel A. <i>ROA</i>				Panel B. <i>LOANR_MA</i>				Panel C. <i>ROA</i>			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Constant	-1.5606** (-2.17)	0.1057 (0.58)	-0.4925 (-0.62)	-1.3357 (-1.59)	3.8025*** (11.93)	3.0061*** (37.91)	3.5659*** (10.62)	1.9646*** (6.55)	-1.0004 (-1.24)	0.3241 (1.40)	-0.2599 (-0.29)	-1.1983 (-1.20)
<i>CSR_D</i>	0.5025** (2.36)	0.6664*** (3.12)	0.2815 (1.33)	0.5595*** (2.86)	-0.3125*** (-2.60)	-0.4782*** (-4.11)	-0.2830** (-2.34)	-0.1922** (-2.31)	0.5256** (2.03)	0.5523** (2.12)	0.3098 (1.18)	0.5310** (2.15)
<i>LOANR_MA</i>									-0.1457*** (-3.39)	-0.1874*** (-4.26)	-0.1116*** (-2.65)	-0.1736*** (-3.27)
<i>RD</i>	-0.0231*** (-4.08)		-0.0211*** (-3.95)	-0.0213*** (-4.03)					-0.0668*** (-5.2)		-0.0629*** (-5.49)	-0.0588*** (-5.68)
<i>SALESG.</i>	4.77*E7*** (9.5)		7.50*E7*** (11.13)	4.48*E7*** (4.7)					4.80*E7*** (9.22)		7.24*E7*** (9.93)	3.75*E7*** (3.58)
<i>AGE</i>	-0.0460*** (-12.08)		-0.032*** (-7.63)	-0.0312*** (-5.92)					-0.0367*** (-8.4)		-0.0233*** (-4.75)	-0.0231*** (-4.02)
<i>SIZE</i>	0.3984*** (8.6)		0.2270*** (4.18)	0.2612*** (4.65)	-0.1015*** (-5.21)		-0.0805*** (-3.56)	-0.0548*** (-2.89)	0.3700*** (7.26)		0.2208*** (3.67)	0.2537*** (4.11)
<i>LEV</i>	-0.0457*** (-13.47)		-0.0409*** (-11.84)	-0.0418*** (-11.55)	1.2543*** (2.89)		0.9366* (2.12)	0.1774 (0.45)	-0.0457*** (-11.36)		-0.0424*** (-10.42)	-0.0424*** (-9.88)
<i>BTM</i>					-124.25*** (-2.86)		-92.472** (-2.09)	-16.792 (-0.43)				
<i>LD/E</i>					-0.0788*** (-3.05)		-0.0861*** (-2.98)	-0.0572* (-1.78)				
<i>EBIT/TA</i>					-0.8201 (-1.38)		-0.7448 (-1.25)	0.1184 (0.19)				
<i>RE/TA</i>					-0.8096*** (-3.61)		-0.8246*** (-3.71)	-0.6012*** (-2.95)				
<i>ZSCORE</i>					0.2230*** (2.85)		0.2324*** (2.87)	0.0722 (1.13)				
<i>BOARD</i>		-0.0144 (-0.76)	-0.0336* (-1.76)	-0.0332* (-1.69)		-0.0214** (-2.25)	-0.0009 (-0.09)	-0.0016 (-0.19)		0.0115 (0.51)	-0.0270 (-1.18)	-0.0340 (-1.48)
<i>MANHOLD</i>		0.1677*** (6.74)	0.1215*** (4.67)	0.1372*** (5.22)		-0.0063 (-0.73)	-0.0067 (-0.75)	-0.0204*** (-2.76)		0.1538*** (5.36)	0.1230*** (4.07)	0.1341*** (4.37)
<i>PLEDGE</i>		-0.0139*** (-4.55)	-0.0090*** (-2.69)	-0.0079** (-2.43)		0.0020** (2.09)	0.0021** (2.10)	0.0007 (0.89)		-0.0104*** (-3.12)	-0.0074** (-2.04)	-0.0060* (-1.68)
<i>INSTHOLD</i>		0.0384*** (16.27)	0.0303*** (11.73)	0.0292*** (11.34)		-0.0060*** (-5.99)	-0.0035*** (-3.11)	-0.0045*** (-4.52)		0.0349*** (12.81)	0.0279*** (9.37)	0.0274*** (9.25)
Ind.&Year Dummies	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Num. of Obs.	4,846	4,932	4,843	4,843	3,823	3,992	3,822	3,822	3,848	3,927	3,847	3,847
R-square	0.0876	0.0692	0.1189	0.1861	0.0714	0.0213	0.0750	0.4272	0.0864	0.0648	0.1138	0.1877
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:
Based on Baron and Kenny (1986), this table reports the estimation results of the three steps of identifying cost of bank loan (*LOANR_MA*) as mediator between CSR and corporate performance (proxied by *ROA*). Yearly data is ranged from 2005 to 2011. The *t*-statistics are shown in the parentheses and ***, **, and * denote 1%, 5% and 10% significantly different from zero.

Table 18 Three-step Identification (Baron and Kenny, 1986) of *LOANR_A* as Mediator between CSR and Corporate Performance

Explanatory Variables	Explained Variables											
	Panel A. ROA				Panel B. LOANR_A				Panel C. ROA			
	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)	Spec. (1)	Spec. (2)	Spec. (3)	Spec. (4)
Constant	-1.5606** (-2.17)	0.1057 (0.58)	-0.4925 (-0.62)	-1.3357 (-1.59)	3.9446*** (13.38)	2.8168*** (38.67)	3.8990*** (12.58)	2.4667*** (8.91)	-1.0253 (-1.27)	0.2981 (1.3)	-0.2718 (-0.31)	-1.1056 (-1.12)
<i>CSR_D</i>	0.5025** (2.36)	0.6664*** (3.12)	0.2815 (1.33)	0.5595*** (2.86)	-0.2497** (-2.22)	-0.4703*** (-4.31)	-0.2259** (-2.00)	-0.1404* (-1.80)	0.5376** (2.09)	0.5329** (2.06)	0.3132 (1.2)	0.5539** (2.26)
<i>LOANR_A</i>									-0.1367*** (-2.98)	-0.1956*** (-4.07)	-0.1043** (-2.32)	-0.1697*** (-2.92)
<i>RD</i>	-0.0231*** (-4.08)		-0.0211*** (-3.95)	-0.0213*** (-4.03)					-0.0667*** (-5.2)		-0.0625*** (-5.53)	-0.0586*** (-5.74)
<i>SALESG.</i>	4.77*E7*** (9.5)		7.50E7*** (11.13)	4.48*E7*** (4.7)					4.88*E7*** (9.41)		7.28*E7*** (10.03)	3.74*E7*** (3.58)
<i>AGE</i>	-0.0460*** (-12.08)		-0.032*** (-7.63)	-0.0312*** (-5.92)					-0.0364*** (-8.37)		-0.0231*** (-4.75)	-0.0230*** (-4.03)
<i>SIZE</i>	0.3984*** (8.6)		0.2270*** (4.18)	0.2612*** (4.65)	-0.1182*** (-6.55)		-0.1145*** (-5.48)	-0.0901*** (-5.17)	0.3685*** (7.26)		0.2185*** (3.67)	0.2468*** (4.07)
<i>LEV</i>	-0.0457*** (-13.47)		-0.0409*** (-11.84)	-0.0418*** (-11.55)	1.2335*** (3.15)		1.0236* (2.56)	0.2276 (0.64)	-0.0459*** (-11.53)		-0.0425*** (-10.53)	-0.0426*** (-10.03)
<i>BTM</i>					-122.23*** (-3.12)		-101.25** (-2.53)	-21.895 (-0.61)				
<i>LD/E</i>					-0.0646*** (-3.25)		-0.0698*** (-3.02)	-0.0387 (-1.57)				
<i>EBIT/TA</i>					-0.4139 (-0.76)		-0.4547 (-0.83)	0.2769 (0.48)				
<i>RE/TA</i>					-0.7053*** (-3.45)		-0.7503*** (-3.71)	-0.5408*** (-2.90)				
<i>ZSCORE</i>					0.1804** (2.51)		0.2158*** (2.92)	0.0666 (1.14)				
<i>BOARD</i>		-0.0144 (-0.76)	-0.0336* (-1.76)	-0.0332* (-1.69)		-0.0228*** (-2.62)	0.0010 (0.11)	-0.0004 (-0.06)		0.0123 (0.56)	-0.0274 (-1.23)	-0.0323 (-1.44)
<i>MANHOLD</i>		0.1677*** (6.74)	0.1215*** (4.67)	0.1372*** (5.22)		-0.0104 (-1.40)	-0.0122 (-1.60)	-0.0237*** (-3.93)		0.1543*** (5.38)	0.1235*** (4.1)	0.1350*** (4.41)
<i>PLEDGE</i>		-0.0139*** (-4.55)	-0.0090*** (-2.69)	-0.0079** (-2.43)		0.0027*** (2.94)	0.0030*** (3.25)	0.0016** (2.27)		-0.0101*** (-3.04)	-0.0072** (-1.98)	-0.0057 (-1.61)
<i>INSTHOLD</i>		0.0384*** (16.27)	0.0303*** (11.73)	0.0292*** (11.34)		-0.0050*** (-5.35)	-0.0019* (-1.76)	-0.0029*** (-3.16)		0.0351*** (12.88)	0.0281*** (9.45)	0.0277*** (9.37)
Ind.&Year Dummies	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Num. of Obs.	4,846	4,932	4,843	4,843	3,834	4,004	3,833	3,833	3,859	3,938	3,858	3,858
R-square	0.0876	0.0692	0.1189	0.1861	0.0793	0.0219	0.0829	0.4552	0.0857	0.0645	0.1134	0.1873
Prob > F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:

Based on Baron and Kenny (1986), this table reports the estimation results of the three steps of identifying cost of bank loan (*LOANR_A*) as mediator between CSR and corporate performance (proxied by *ROA*). Yearly data is ranged from 2005 to 2011. The *t*-statistics are shown in the parentheses and ***, ** and * denote 1%, 5% and 10% significantly different from zero.