Does Corporate Social Responsibility Matter in Asian Emerging Markets?

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ABSTRACT. This study addresses the question whether corporate social responsibility (CSR) matters in Asian Emerging Markets. Based on CSR scores compiled by Credit Lyonnais Securities (Asia), we assess the CSR performance of major Asian firms over a period of 3 years, from 2001 to 2004. The results show that there is a positive and significant relation between CSR and market valuation among Asian firms. We further find that CSR is positively related to the market valuation of the subsequent year. More importantly, Asian firms are rewarded by the market for improving their CSR practice.

KEY WORDS: Asian Emerging Markets, corporate social responsibility, corporate valuation

JEL CLASSIFICATION: G3, G34, M14

Introduction

Recently, corporate social responsibility (CSR) has been attracting worldwide attention. The field of CSR can be summarized as the management of potential conflicts of interest between different stakeholders with respect to economic, environmental, social and ethical issues. For the firm, CSR is about its relationship with relevant stakeholders. More specifically, firms need to balance the priorities of their various stakeholders in all the aspects of performance, including financial. On the investment side, many investors are increasingly concerned with the moral implications of their portfolio decisions as well as the investment returns resulting from their decisions. These moral implications include social, environmental and religious matters. Thus, socially responsible investment (SRI) has grown tremendously in developed markets (Laufer, 2003), and

there have been numerous investment funds that have explicit policies to invest only in firms with good CSR performance. This could reduce the cost of capital for firms and should serve as an incentive for firm management to be socially responsible. SRI has had a slow start in Asia but is now attracting more attention. For example, Industrial Fund Management announced the launch of China's first SRI fund with a target size of U.S. $14 million on March 19, 2008.[1] The objective of this study is to examine the relation between CSR and financial performance in Asian Emerging Markets (AEMs).

Asia is a fast growing region. According to a forecast by the United Nations (UNESCAP, 2008), Asia's developing countries are expected to grow at a rate of 7.7% in 2008, compared with the global growth rate of 3.3% forecast by the World Bank (2008). This region has been demonstrating huge economic growth since the 1980s. In particular, there has been a rising interest in investing in AEMs, particularly China and India. International fund management houses have been launching various investments that either invest solely in this region or have an explicit policy of investing a fixed portion of their portfolio in the region. Apart from the growth potential of the region, diversifying away the risk inherent in developed markets such as the USA and Europe is another important reason for such an investment policy.

The Asian equity markets are, however, quite different from those of western countries. The Asian business community is characterized by high family ownership and lack of transparency. The Asian equity markets are relatively more illiquid, than compared to western markets. The traditional agency problem is not applicable in Asia because there is seldom a separation of management and

ownership. It is common to find that the chairman of the board is also the chief executive officer in Asian listed companies. In addition, market discipline mechanisms, such as hostile takeovers, cannot function properly in Asia because of the concentrated or family ownership. This could explain why CSR has had a slow start in Asia. This study will shed some light on the impacts of CSR on the fast growing AEMs.

This study has three aims. First, based on the Credit Lyonnais Securities Asia (CLSA) CSR score, we compare the CSR practices of the major firms listed in AEMs over a period of 3 years, from 2001 to 2004. Second, we examine the relation between the CSR score and market valuation to see whether good CSR practices are recognized and rewarded by investors. Finally, we examine the impact of change in CSR on market valuation. This addresses the issue of whether AEM firms are rewarded for improving their CSR. The time series data allows us to evaluate the market response to changes in CSR. Determining whether CSR matters in AEMs has implications for the development of the fund management industry and business community.

The remainder of this article is organized in following sections: Literature review; Data and methodology; Empirical results; and Concluding remarks.

Literature review

The academic literature attempts to examine the relation between CSR and firm performance from several perspectives, including impacts on profitability, asset values and other performance measures. A detailed review can be found in Margolis and Walsh (2001). Contrasting views exist with respect to social performance and its potential effects on firms. On the one hand, high environmental and social standards will lead to higher operating costs that translate into lower profitability. On the other hand, strong social policies could strengthen a firm's reputation and brand name, thus enhancing the firm's financial performance.

Empirical studies of the relationship between CSR and financial performance can be broadly divided into two types. The first type employs event study methodologies to measure abnormal responses in the market when firms engage in either socially responsible on irresponsible acts. Some find no impact of social issues on share price performance. Cohen et al. (1997) find no statistical difference in the risk-adjusted total return between 'low polluter' and 'high polluter' firms based on a ranking of firms by industry. Some do obtain positive results. For example, Hamilton (1995) finds significant abnormal negative returns in response to the Toxics Release Inventory. Klassen and McLaughlin (1996) and Filbeck and Gorman (2004) find a positive association between the timing of an environmental award announcement and financial performance. Dasgupta et al. (1997) show that capital markets in Argentina, Chile, Mexico and the Philippines react positively to the announcement of environmental awards.

The second type of study examines the relationship between measures of CSR and long-term financial performance. Dowell et al. (2000) find that firms adopting a single stringent global environmental standard have much higher market returns than firms with less stringent host country standards. Guenster et al. (2005) obtain evidence of a positive association between corporate economic efficiency and a firm's valuation. Khanna et al. (2004) show that environmental liability costs and negative reputational effects from significant toxic release have a negative impact on a firm's profitability. Konar and Cohen (2001) find weak environmental performance to be negatively correlated with the intangible asset value of firms.

The area of SRI has received increasing research attention. Laufer (2003) cites that one out of every eight dollars placed in the hands of professional money managers in the USA is dedicated to SRI. Based on a CSR index of corporate social performance, Waddock and Graves (1997) find a positive relationship between a firm's profit margin and CSR performance. Hill et al. (2007) examine the relationship between CSR and company stock valuation across three regions of the world. They find that European investors appear to value CSR in the short term as well as the long term, and that Asian investors may be trending to mirror U.S. investors. They conclude that the value of CSR activities to global enterprises may continue to grow in importance. There is little evidence obtained for AEMs. As the region gains in importance in terms of economic development, there should be a need for AEM firms to strike a balance among priorities of different stakeholders.

Data and methodology

In 2001, CLSA issued a report on corporate governance (CG) practices in emerging markets that provided scores on the quality of governance of firms in those markets. Firms were selected based on size (large) and investor interest (high).

The CLSA CG ratings were assigned to 495 companies in 25 emerging markets. These markets include Asian, Eastern European, South African and Latin American. The CG score is used to assess the quality of CG practices of firms within these emerging markets. The governance scores are based on responses from CLSA financial analysts to 57 questions. Responses are used to construct scores on a scale of 1–100, with higher numbers indicating better governance. According to CLSA, 70% of the scores are based on objective information, and all the questions have binary answers to minimize analysts' subjectivity. CLSA groups the 57 questions into seven categories: discipline, transparency, independency, accountability, responsibility, fairness and social responsibility. The full list of questions can be found in CLSA (2001). The CLSA CG score has been used to examine the relation between CG practices and firm performance. For other examples of research utilizing CLSA CG scores, see Klapper and Love (2004) and Durnev and Kim (2005).

The last section of CLSA contains six questions which attempt to broadly measure a firm's social responsibility. The questions are listed in Table I.

The following is a summary of what CLSA analysts take to constitute good CSR in emerging markets:

- explicit policy emphasizing strict ethical behaviour;
- not employing the under-aged;
- explicit equal employment policy;
- adherence to specified industry guidelines on sourcing of materials;
- explicit policy on environmental responsibility;
- abstaining from countries where leaders lack legitimacy.

It can be noted that CLSA attempts to provide a broad measure for CSR. One disadvantage of the CLSA CSR score is that these criteria are too simple and may not be able to capture the full picture of CSR. For example, the CLSA CSR criterion on environmental protection is simple, compared to the United Nations Global Compact (Cetindamar and Husoy, 2007). A distinct advantage, however, is that the criteria are relatively simple and are applicable to firms across different industries. This enables us to compare CSR policies among different industries and different markets.

The United Nations Global Compact (UNGC) was launched in July 2000. The UNGC is a voluntary initiative for companies that are committed to sustainability and responsible business practices to participate. The UNGC consists of 10 principles:

TABLE I

Corporate social responsibility score

1.	Does the company have an explicit (clearly worded) public policy statement that emphasizes strict ethical behaviour: one that looks at the spirit and not just the letter of the law? (Internal employee conduct manual that emphasizes ethical behaviour and no grounds to believe otherwise in the company's corporate culture would count as 'Yes'.)
2.	Does the company have a policy/culture that prohibits the employment of the under-aged, as far as the analyst can tell?
3.	Does the company have an explicit equal employment policy: i.e., no discrimination on the basis of sex, race, religion, etc.?
4.	Does the company adhere to specified industry guidelines on sourcing of materials, as far as the analyst can tell?
5.	Is the company explicitly environmentally conscious? Does it promote use of environmentally efficient products, or takes steps to reduce pollution, or to participate in environment-related campaigns? (If there are no concrete examples of this, then answer 'No'.)
6.	Is it true that the company has no investment/operations in Myanmar?

This table shows the six CSR criteria used in the CLSA report.

two on human rights, four on labour, three on environment, and one on anti-corruption. The CLSA principles fall broadly into the areas of human rights, labour, and environment that are consistent with those of UNGC. It seems that CLSA principles are less elaborated than those of UNGC. However, companies participate in the UNGC programme on a voluntary basis and not for the CLSA programme.

Based on the CLSA report on CG in emerging markets, we compile three firm-year sets of CSR data for a sample of major firms listed on AEMs during the years 2001–2004.[2] For market valuation, we use both the Tobin's Q and market-to-book ratio (MBTV) and control for a number of variables that can affect a firm's market valuation. In order to make sure that the results are not driven by firm heterogeneity, we add control variables that cover firm's characteristics including firm size, debt–equity ratio, return on equity, current asset ratio and sales growth rate. The data used include accounting information and firm performance data both of which are obtained from DataStream. All data are matched to the appropriate fiscal year.

Empirical results

Descriptive statistics

Panel A of Table II presents the descriptive statistics of CSR scores of AEMs. These markets include China, Hong Kong, India, Indonesia, Korea, Malaysia, Singapore, Taiwan and Thailand. In 2001, there were 361 firms from these markets representing 73% of the total sample firms included in the CLSA report. There were 372 and 455 firms included in the CLSA reports in 2002 and 2004, respectively. The full lists of AEM firms can be found in the CLSA reports (CLSA, 2001, 2002, 2004).

Indian firms have the largest representation among AEMs. There were a total of 215 firm-years from India. The Philippines has the smallest representation. There were 49 firm-years from the Philippines. During the sample period, India and Korea appear to have the highest CSR scores. Both countries have average scores above 80. Indonesia has the lowest average CSR score at 58.9. For all

markets, the average CSR score increases from 67.1 in 2001 to 83.0 in 2004. This indicates there is an increasing awareness of social responsibility among Asian firms. Most Asian markets exhibit an increasing trend in CSR performance, with the exception of Malaysia.

Panel B of Table II presents summary statistics of the CLSA CSR score of Asian firms by industry. Among all industries, Chemicals, Health and Technology have the highest CSR scores and Retail has the lowest CSR score.

Regression results

Table III presents summary statistics for market valuation and control variables of the sample firms. This study uses Tobin's Q and Market-to-book (MTBV) ratio as measures of market valuation. Tobin's Q is the sum of the market value of equity, short-term debt and long-term debt divided by total assets. The ordinary regression model is used to assess the impact of the CSR score on a firm's market valuation. Panel A of Table IV reveals that the CSR score is positive and significantly related to Tobin's Q. When we add other control variables into the regression model, including the year, industry and country effects, the coefficient of the CSR score is still positive and significantly related to Tobin's Q. The third and fourth columns reveal the result of the regression model using MTBV as the dependent variable. The results are consistent with those of Tobin's Q.[3]

It is noted that financial firms have a different capital structure which could affect the findings. We repeat the analysis with only non-financial firms. The result is presented in Panel B and shows that there is a positive and significant association between the CSR score and market valuation for non-financial firms. We can conclude that the results are applicable for both financial and non-financial firms.

Robustness tests

We perform two robustness tests on our findings. First, multicollinearity could be a potential problem in the regression models. In order to check this, we

TABLE II

Summary statistics of corporate social responsibility (CSR) scores

Panel A: Summary statistics of corporate social responsibility score by country

Country/region	Full sample					2001					2002					2004				
	n	Mean	SD	Min	Max	n	Mean	SD	Min	Max	n	Mean	SD	Min	Max	n	Mean	SD	Min	Max
China	132	67.17	23.83	16.70	100.00	25	55.33	13.37	33.30	83.30	45	56.67	17.90	16.70	100.00	62	79.56	24.96	16.70	100.00
Hong Kong	139	76.50	20.54	16.70	100.00	38	65.79	23.87	16.70	100.00	41	70.73	18.92	33.30	100.00	60	87.22	13.15	50.00	100.00
India	215	87.90	15.57	33.30	100.00	79	82.91	19.05	33.30	100.00	69	85.50	13.06	50.00	100.00	67	96.27	8.62	66.70	100.00
Indonesia	69	58.93	30.73	0.00	100.00	18	37.03	23.94	0.00	100.00	17	38.22	16.41	16.70	83.30	34	80.88	23.25	16.70	100.00
Korea	101	85.47	17.74	33.30	100.00	24	66.65	17.71	33.30	83.30	28	80.95	14.12	50.00	100.00	49	97.28	7.87	66.70	100.00
Malaysia	140	65.72	12.91	33.30	100.00	47	59.58	12.41	33.30	83.30	46	71.02	12.86	33.30	100.00	47	66.68	10.98	50.00	83.30
Philippines	49	79.92	15.20	50.00	100.00	20	78.34	16.30	50.00	100.00	13	80.78	20.23	50.00	100.00	16	81.22	8.33	50.00	83.30
Singapore	124	60.88	20.17	16.70	100.00	43	54.27	12.12	33.30	83.30	43	61.62	21.06	33.30	100.00	38	67.54	24.18	16.70	100.00
Taiwan	144	77.08	19.60	16.70	100.00	47	74.81	20.23	33.30	100.00	49	69.38	20.22	16.70	100.00	48	87.15	13.42	50.00	100.00
Thailand	75	68.79	11.77	33.30	100.00	20	65.02	11.97	33.30	83.30	21	66.30	12.99	33.30	100.00	34	72.55	9.93	50.00	83.30
Total	1188	74.09	21.39	0.00	100.00	361	67.08	21.42	0.00	100.00	372	69.96	20.35	16.70	100.00	455	83.04	18.99	16.70	100.00

Panel B: Summary statistics of CLSA corporate social responsibility score by industry

Industry	n	Mean	SD	Mean		
				2001	2002	2004
Automobiles and parts	37	75.22	23.45	60.00	71.21	87.49
Banks	102	75.49	19.57	63.34	72.03	88.88
Basic resources	31	75.27	21.46	59.27	66.65	87.51
Chemicals	27	84.56	14.56	80.57	79.62	90.27
Construct. and material	37	70.54	21.00	50.00	62.67	87.26
Financial services	44	71.96	20.58	74.35	63.08	77.45
Food and beverage	60	70.55	24.99	76.31	65.99	70.84
Healthcare	34	83.82	29.15	85.71	89.39	74.08
Ind. goods and services	151	72.51	20.56	64.73	66.27	81.57
Insurance	5	70.00	21.72	50.00	58.35	91.65
Media	43	71.70	17.26	61.54	66.66	84.36
Oil and gas	30	74.99	17.36	66.66	72.72	84.98
Personal and household goods	67	71.14	26.04	63.09	62.88	80.64
Real estate	75	69.99	19.37	63.34	65.99	77.77

TABLE II

continued

Industry	n	Mean	SD	Mean		
				2001	2002	2004
Retail	35	57.61	22.64	48.14	54.53	65.55
Technology	141	83.21	17.42	75.36	81.48	91.99
Telecommunications	66	73.73	23.58	65.15	66.66	87.49
Travel and leisure	45	67.41	19.45	60.17	65.56	75.01
Utilities	58	78.45	17.65	75.55	78.07	83.34

This table reports the mean, standard deviation, minimum, and maximum CSR score. n is the number of firms in the country.

TABLE III

Summary statistics of the main variables

Variable	n	Mean	SD	Percentile		
				25%	50%	75%
Tobin's Q	1019	1.581	1.665	0.694	1.042	1.806
MTBV	1013	1.459	1.638	0.623	0.939	1.645
Size	1035	14.112	1.753	12.819	14.039	15.240
Debt–equity ratio	1014	0.923	4.490	0.107	0.428	0.929
Return on equity	1034	0.154	0.479	0.079	0.134	0.210
Current asset ratio	919	0.162	0.146	0.051	0.121	0.226
Sale growth rate	941	−0.092	11.320	0.008	0.125	0.313

This table reports the main variables, the mean, the standard deviation and the percentile of 25, 50 and 75%. Tobin's Q is the sum of the market value of equity plus short-term debt plus long-term debt divided by total assets; MTBV is market-to-book ratio, defined as the market value divided by the book value of common stock; Tobin's Q and MTBV are winsorized at the first and 99th percentile; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after tax divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; sales growth rate is calculated by the growth rate in net sales.

TABLE IV

Regressions of corporate valuation on corporate social responsibility (CSR) score

Dependent variable	Panel A: Financial firms included				Panel B: Financial firms excluded	
	Tobin's Q	Tobin's Q	MTBV	MTBV	Tobin's Q	MTBV
Corporate social responsibility score	0.681*** (2.96)	0.877*** (3.36)	0.701*** (3.09)	0.871*** (3.33)	1.018*** (3.67)	1.014*** (3.65)
Size		−0.233*** (−3.76)		−0.226*** (−3.58)	−0.240*** (−3.52)	−0.233*** (−3.37)
Debt–equity ratio		−0.013 (−0.97)		−0.012 (−0.90)	−0.014 (−1.05)	−0.013 (−0.99)
Return on equity		0.289 (1.35)		0.297 (1.40)	0.278 (1.31)	0.286 (1.36)
Current asset ratio		1.521*** (3.02)		0.544 (1.07)	1.644*** (2.98)	0.664 (1.19)
Sale growth rate		0.205** (1.97)		0.204** (1.97)	0.216** (2.09)	0.216** (2.10)
Intercept	1.323*** (4.31)	3.729*** (3.79)	1.135*** (3.73)	3.676*** (3.68)	3.782*** (3.53)	3.735*** (3.42)
Adj. R^2	0.313	0.327	0.303	0.300	0.311	0.286
Mean VIF	2.28	2.29	2.28	2.29	2.21	2.22
Obs	1019	816	1013	812	734	730

This table shows ordinary least squares regressions of corporate valuation on CSR score. Tobin's Q is the sum of the market value of equity plus short-term debt plus long-term debt divided by total assets; MTBV is market-to-book ratio, defined as the market value divided by the book value of common stock; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity, return on equity is calculated by net income after taxes divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; sale growth rate is calculated by the growth rate in net sales. Tobin's Q and MTBV are winsorized at the first and 99th percentile. Year, industry and country fixed effects are included but not reported. ***, ** and * denote significance at the 1, 5 and 10% levels, respectively. While adjusted *t*-statistics are in parentheses, the coefficient of CSR score is multiplied by 100. Panel B excludes firms that belong to financial industries.

TABLE V

Correlation matrix of variables

	1	2	3	4	5	6	7
1 Corporate social responsibility score	1.000						
2 Corporate social responsibility score change (ΔCSR)	0.435*** (0.000)	1.000					
3 Size	0.049 (0.117)	0.101** (0.028)	1.000				
4 Debt–equity ratio	0.005 (0.869)	0.021 (0.652)	0.088*** (0.005)	1.000			
5 Return on equity	0.037 (0.232)	−0.050 (0.280)	−0.079*** (0.011)	0.192*** (0.000)	1.000		
6 Current asset ratio	−0.090*** (0.007)	0.058 (0.235)	−0.246*** (0.000)	−0.074** (0.027)	0.054 (0.104)	1.000	
7 Sale growth rate	0.035 (0.280)	−0.048 (0.297)	−0.046 (0.156)	−0.045 (0.174)	0.074** (0.024)	0.030 (0.389)	1.000

This table shows a correlation matrix of the main independent variables. Size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after taxes divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; sale growth rate is calculated by the growth rate in net sale. ***, ** and * denote significance at the 1, 5 and 10% levels, respectively. *p*–values are in parentheses.

examine the correction coefficients among all the independent variables. The correlation matrix is presented in Table V, which shows that the correlation coefficients among variables are at an acceptable level.

Second, a large number of companies were included twice or even more in the sample that could create biases in our result. For robustness test, we separate the full sample into two groups, overlapping firms and non-overlapping firms, and repeat the regression analysis. Table VI presents the results. We find that the results are consistent in both sub-groups and with our finding above.

Third, we note that CSR and valuation may be related through other variables. It is possible that high-value stocks in emerging markets attract international investors and greater international investor participation may lead to better performance in CSR. In order to minimize this endogenous problem, we use the three-stage least square method proposed by Durnev and Kim (2005) to re-estimate our model. The model has two equations. In the CSR equation, the CSR score is the dependent variable and the valuation and other control variables are independent variables. In the valuation equation, valuation is the dependent variable and the CSR score and other control variables are independent variables. The results are shown in Table VII. Panel A (B) uses Tobin's *Q* (MTBV) as the market valuation. In both panels, the results show that there exists a mutually positive and significant association between CSR and market valuation in the three-stage least squares model. This leads us to conclude that better CSR performance does lead to a high valuation in AEMs.

CSR predictability on corporate performance in the next period

This subsection examines the relationship between CSR score and market valuation of the subsequent period; in other words, the question is whether the market will reward firms with good CSR performance in the following year. We replace the valuation variables of this period by those of the following year. The results are presented in Table VIII, which show that CSR score is positive and significantly related to both the Tobin's *Q* and MTBV of the subsequent

TABLE VI

Regressions of corporate valuation on corporate social responsibility (CSR) score with overlapping firms and non-overlapping firms

Dependent variable	Tobin's Q	Tobin's Q	MTBV	MTBV
CSR	0.707* (1.71)	0.917*** (2.78)	0.689* (1.66)	0.899*** (2.72)
Size	−0.418*** (−3.14)	−0.192*** (−3.92)	−0.415*** (−3.09)	−0.181*** (−3.71)
Debt–equity ratio	0.021 (0.76)	−0.013 (−1.08)	0.021 (0.79)	−0.013 (−1.02)
Return on equity	0.468 (1.37)	0.214 (0.99)	0.476 (1.39)	0.222 (1.04)
Current asset ratio	1.138* (1.78)	1.703*** (2.66)	0.163 (0.26)	0.732 (1.13)
Sale growth rate	−0.054 (−0.65)	0.273*** (5.03)	−0.055 (−0.65)	0.272*** (5.02)
Intercept	7.383*** (3.43)	3.610*** (3.62)	7.419*** (3.41)	3.492*** (3.48)
Sample firms	Non-overlapping	Overlapping	Non-overlapping	Overlapping
Adj. R^2	0.310	0.350	0.281	0.324
Mean VIF	2.49	2.50	2.49	2.50
Obs	197	619	195	617

This table shows ordinary least squares regressions of corporate valuation on CSR score with overlapping firms and non-overlapping firms. Tobin's Q is the sum of the market value of equity plus short-term debt plus long-term debt divided by total assets; MTBV is market-to-book ratio, defined as the market value divided by the book value of common stock; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after taxes divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; sale growth rate is calculated by the growth rate in net sales. Tobin's Q and MTBV are winsorized at the first and 99th percentile. Year, industry and country fixed effects are included but not reported. ***, **, and * denote significance at the 1, 5 and 10% levels, respectively. While adjusted t-statistics are in parentheses, the coefficient of CSR score is multiplied by 100.

TABLE VII

Three-stage least regressions of the relationship between corporate valuation and corporate social responsibility (CSR) score

Dependent variable	Panel A		Panel B	
	CSR equation CSR	Valuation equation Tobin's Q	CSR equation CSR	Valuation equation MTBV
Corporate valuation	3.010★★★ (6.61)		2.974★★★ (6.53)	
Corporate social responsibility score		1.731★★★ (6.61)		1.719★★★ (6.53)
Size	1.470★★★ (2.92)	−0.240★★★ (−6.40)	1.448★★★ (2.87)	−0.232★★★ (−6.17)
Debt–equity ratio	0.043 (0.34)	−0.013 (−1.32)	0.042 (0.33)	−0.012 (−1.25)
Return on equity	−0.694 (−0.57)	0.287★★★ (3.13)	−0.710 (−0.58)	0.296★★★ (3.20)
Current asset ratio	−8.641★ (−1.77)	1.557★★★ (4.25)	−5.774 (−1.19)	0.580 (1.58)
Sale growth rate	−1.017★ (−1.72)	0.208★★★ (4.70)	−1.020★ (−1.72)	0.208★★★ (4.67)
Intercept	59.163★★★ (7.18)	2.865★★★ (4.50)	59.463★★★ (7.20)	2.776★★★ (4.33)
χ^2 statistics	594.49★★★	480.85★★★	588.47★★★	429.72★★★
Obs	816		812	

This table shows three-stage least regressions of the relationship between corporate valuation and CSR score. Tobin's Q is the sum of the market value of equity plus short-term debt plus long-term debt divided by total assets; MTBV is market-to-book ratio, defined as the market value divided by the book value of common stock; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after taxes divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; Sale growth rate is calculated by the growth rate in net sales. Tobin's Q and MTBV are winsorized at the first and 99th percentile. Year, industry and country fixed effects are included but not reported. ★★★, ★★ and ★ denote significance at the 1, 5 and 10% levels, respectively. The coefficient of CSR score is multiplied by 100.

year. The results seem to support that CSR has a predictive power for firm valuation.

In addition to market valuation, investors are also concerned with whether better CSR performance will translate to higher stock return. This is an important signal showing that the market does care about CSR. In order to address the impact of change in CSR on stock return, we divide the three firm-year sets of CSR data into two sub-periods: the first (2001–2002) and the second (2002–2004)[4] 2-year periods. We then identify the firms in our sample that overlap during those periods. These are 213 overlapping firms in the first sub-period and 206 overlapping firms during the second sub-period. We use the buy and hold market-adjusted return (BHAR) as the market response. The BHAR is a 12-month buy-and-hold abnormal return over the subsequent fiscal year. BHAR is adjusted by the corresponding country stock market index.

The change in CSR is measured by the percentage change of the CSR score over the sub-period. The regression results of using BHAR as the independent variable and change in the CSR score as the dependent variable are presented in Table IX.

The results show that BHAR is positive and significantly associated with the CSR change in both simple and multivariate regression models with control variables. This suggests that a positive change in CSR is significantly associated with a higher buy-and-hold market-adjusted return and that the market rewards AEM firms for improvement in CSR. In order to check for robustness of our finding, we repeat the analysis with overlapping firms in each of the two sub-periods. We obtain similar results, although the results are not reported here. This study also attempts to assess CSR performance by country. Due to the small sample size, we fail to draw any meaningful conclusions for individual countries.

TABLE VIII

Regressions of corporate valuation in year $t + 1$ on corporate social responsibility (CSR) score

	Tobin's Q_{t+1}	Tobin's Q_{t+1}	MTBV$_{t+1}$	MTBV$_{t+1}$
Corporate social responsibility score	0.479★★★ (2.60)	0.655★★★ (3.08)	0.492★★★ (2.73)	0.650★★★ (3.05)
Size		−0.155★★★ (−4.00)		−0.141★★ (−3.61)
Debt–equity ratio		0.023 (1.14)		0.026 (1.25)
Return on equity		0.329 (1.03)		0.350 (1.09)
Current asset ratio		1.339★★★ (3.93)		0.584★ (1.70)
Sale growth rate		0.162★★ (2.46)		0.164★★ (2.52)
Intercept	0.950★★★ (4.69)	2.428★★★ (3.94)	0.787★★★ (3.96)	2.264★★★ (3.63)
Adj. R^2	0.327	0.330	0.313	0.297
Mean VIF	2.30	2.31	2.29	2.31
Obs	958	761	953	759

This table shows ordinary least squares regressions of corporate valuation on the CLSA CSR score. Tobin's Q is the sum of the market value of equity plus short-term debt plus long-term debt divided by total assets; MTBV is market-to-book ratio, defined as the market value divided by the book value of common stock; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after taxes divided by book value of equity; current asset ratio is calculated by current assets divided by total assets; sale growth rate is calculated by the growth rate in net sales. Tobin's Q and MTBV are winsorized at the first and 99th percentile. Year, industry and country fixed effects are included but not reported. ★★★, ★★ and ★ denote significance at the 1, 5 and 10% levels, respectively. While adjusted t-statistics are in parentheses, the coefficient of CSR score is multiplied by 100.

Concluding remarks

Based on the CLSA CSR score, this study assesses the CSR performance of firms in AEMs. During the sample period, we find that there is an improvement in CSR performance in AEMs, with the exception of Malaysia. The findings show that there is a positive and significant association between CSR and market valuation in AEMs. The result is robust, using a three-stage least squares estimation to adjust for endogeneity. We also obtain evidence that CSR is related to market valuation of the subsequent period. This study further shows that change in the CSR score is positive and significantly associated with the market-adjusted return of the subsequent period.

There are two limitations in this study. First, as mentioned in section 'Literature review' that CSR can have both negative and positive effects on firms. This depends on the structure of the market that determines the interplay between social costs and benefits. The pace of development of Asian markets is very different, and more in-depth studies in each of these markets are warranted. Second, the CLSA

rating depends on firm disclosure, and there is no way to clarify whether the firm has *really* compiled. The CLSA measure only accounts for firm disclosure policy and fail to measure firm performance or improvement in these areas. The remaining question is how one can ignore the symbolic actions (adopting the environmental policy) but to accurately measure firm commitment in CSR.

CSR has had a slow start in Asia. The capital market could play an important in promoting CSR. If we could provide evidence that the capital market rewards firms with good CSR practices, then this could make a difference. Investor education is also crucial in CSR development. Investors should be educated to not only invest in firms for short term profits but also in firms that are committed to sustainability and responsible business practices that could generate long-term profits. This study documents that there is an improving trend in CSR performance among AEM firms. The market rewards firms that are socially responsible and also those that show improvement in CSR performance. The results show that Asian firms are aware of the importance of CSR and there is a gradual

TABLE IX

Regression of the buy-and-hold market-adjusted return on change in the corporate social responsibility (CSR) score

Dependent variable: BHAR	(1)	(2)
Corporate social responsibility score change (ΔCSR)	0.383★★ (2.17)	0.481★★ (2.43)
Size		0.020 (0.88)
Debt–equity ratio		0.007★★ (2.25)
Return on equity		−0.009 (−0.26)
Current asset ratio		0.104 (0.51)
Sale growth rate		0.006 (0.78)
Intercept	0.395★★ (2.09)	0.090 (0.28)
Adj. R^2	0.009	0.013
Mean VIF	2.41	2.11
Obs	419	360

This table shows ordinary least squares regressions of stock buy-and-hold market-adjusted returns on the change of the CSR score. BHAR is 12-month buy-and-hold market-adjusted return (%) over the subsequent fiscal year. BHAR is adjusted by the stock market index in the listed countries. The market index consists of the Shanghai Stock Exchange Composite Index of China, the Hang Seng Index of Hong Kong, the BSE Sensitive 30 (Sensex) Index of India, the Jakarta Composite Index of Indonesia, the KOSPI 200 Composite Index of Korea, the Bursa Malaysia Composite Index of Malaysia, the Philippines Stock Exchange Index of the Philippines, the Strait Times Index of Singapore, the Taiwan Stock Exchange Weighted Stock Index of Taiwan and the Stock Exchange of Thailand Index of Thailand. Corporate social responsibility score change (ΔCSR) is the percentage change of CSR score at year t; size is the natural logarithm of the book value of total assets in thousands of U.S. dollars at the end of the fiscal year; debt–equity ratio is calculated by total debt divided by book value of equity; return on equity is calculated by net income after tax divided by book value of equity; current asset ratio is calculated by current asset divided by total assets; sale growth rate is calculated by the growth rate in net sale. Year and industry fixed effects are included but not reported. ★★★, ★★ and ★ denote significance at the 1, 5 and 10% levels, respectively. While adjusted t-statistics are in parentheses, the coefficient on change of CSR score is multiplied by 100.

improvement in performance. CSR is gaining in importance in Asia, and this trend is expected to continue in the future. This implies that there is room for SRI development in AEMs.

Notes

[1] www.ftchinese.com.
[2] These three years (2001, 2002 and 2004) are the years in which CLSA conducted comprehensive studies of corporate governance practices in emerging markets. There are no data available for any other year.
[3] In Table IV, we report the mean value of Variance Inflation Factor (VIF). We find that the values are in the reasonable range which indicates that the multicollinearity is not a problem in our regressions.
[4] We have 3-year CSR scores in 2001, 2002 and 2004. These 3-year scores are divided into two sub-

periods, 2001–2002 and 2002–2004. We calculate the change in CSR in each of these two sub-periods.

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