

Corporate Social Responsibility for Irresponsibility

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Abstract

This paper provides an empirical investigation of the claim that companies engage in corporate social responsibility (CSR) in order to offset corporate social irresponsibility (CSI). We find general support for the causal relationship: when companies do more “harm,” they also do more “good.” The empirical analysis is based on an extensive 15-year panel dataset that covers nearly 3,000 publicly traded companies. In addition to the overall finding that more CSI results in more CSR, we find evidence of heterogeneity among industries, where the effect is stronger in industries that receive greater public scrutiny. We also investigate the degree of substitutability between different categories of CSR and CSI. Within the categories of community relations and environment—arguably among those dimensions of social responsibility that are the most salient—there is a strong within-category relationship. In contrast, the within-category relationship for corporate governance is weak, but CSI related to corporate governance appears to increase CSR in most other categories. Thus, when CSI concerns arise about corporate governance, companies seemingly choose to offset with CSR in other dimensions, rather than reform governance itself.

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I. Introduction

In an attempt to explain why companies engage in corporate social responsibility (CSR), a large and growing literature investigates the relationship between CSR and financial performance. While the majority of studies find a positive correlation between CSR and various indicators of financial performance, many studies find no correlation, or even a negative correlation. Notwithstanding these seemingly contradictory results, questions remain about why companies engage in CSR. Correlation does not mean causality, and critics of the literature point to problems of endogeneity: does CSR improve financial performance, or might causality run in the other direction? Another challenge facing research in this area relates to the question of how CSR should be defined, let alone measured.

This paper takes a different approach to the study of CSR. We seek to explain why companies engage in CSR, but we do not focus directly on the link to financial performance. Instead, we investigate the claim that companies engage in CSR in order to offset corporate social irresponsibility (CSI). While the link to financial performance is implicit, our analysis seeks to evaluate a causal mechanism underlying CSR, namely that social irresponsibility is a liability and companies do “good” in order to compensate for “bad.” We test this claim empirically using a panel dataset on nearly 3,000 publicly traded companies. Our key variables on CSR and CSI are based on the KLD Social Ratings Database between 1991 and 2005. These data consist of more than 80 different indicators and are the most frequently cited source of corporate social performance in the academic literature. We construct measures of overall CSR and CSI, along with separate measures for several specific issue areas: community, corporate governance, diversity, employee relations, environment, human rights, product quality and safety, and controversial business issues. In order to control for other factors that may affect CSR, we also collected annual accounting data and stock market data for all companies from the Compustat North America database and the CRSP database, respectively.

Our general finding is that more CSI results in more CSR. In other words, when companies do more harm, they also do more good. The result holds regardless of whether we identify the relationship off of variation within companies or between companies. We also find heterogeneity among industries, where the effect of CSI on CSR appears to be stronger in industries for which CSI tends to be the subject of greater public scrutiny, with examples being chemical and pharmaceutical companies and the automobile industry. Finally, we investigate the degree of substitutability between different categories of CSR and CSI. While CSI in the specific area of corporate governance does not affect CSR in the same category, it does stimulate CSR in most other categories. This result suggests that when companies are perceived as having poor corporate governance from a CSI perspective, they seek to compensate in most other areas. In contrast, we find a strong relationship between CSI and CSR within the specific areas of community and environment, perhaps because these dimensions of corporate social impacts—good and bad—are among the most salient to the public.

II. Definitions and Hypotheses

In order to establish a conceptual framework, we adopt the definition of CSR put forth in Heal (2005): *CSR is a program of actions to reduce externalized costs or to avoid distributional conflicts*. This definition is appealing because of its foundation in economic theory. As Heal describes, CSR can be interpreted as a Coasian solution to problems associated with social costs. There is much empirical support for the notion that societies penalize companies that are perceived to conduct business in ways that conflict with social values. This is particularly true when inconsistencies arise between the pursuit of corporate profits and social goals, such as environmental protection, public health, and human rights, among others. In cases where the inconsistencies are large and there is sufficient public awareness, it is advantageous for companies to anticipate the social pressure and to take a proactive stance toward lessening the potential for conflict.

Actions of this type are considered CSR, and they are often an important part of corporate strategy.

This definition of CSR implies that companies have an incentive to act more socially responsible in order to offset actions that are perceived to be socially irresponsible. In parallel with the definition for CSR, we can define corporate social irresponsibility: *CSI is a program of actions that increase externalized costs or promote distributional conflicts*. It is easy to envision how some industries are perceived as being associated with greater CSI, with examples including tobacco companies and “big oil.” But even within industries, particular companies may have reputations for greater CSI because they tend to employ business practices that are in conflict with social values. What is more, the perception of CSI—or even CSR—may be based on a company’s actions relative to a peer group of companies rather than on its own actions in an absolute sense.

Regardless of how social perceptions arise, companies must account for them in corporate strategy. Part of this strategy is likely to be based on an understanding of the interaction between CSI and CSR. Here we generate some testable hypotheses about this relationship, and we focus on the causal effect of CSI on CSR, as this motivates our empirical analysis. The first hypothesis is the most general.

Hypothesis 1. The amount of CSR should be increasing in the amount of CSI.

We would expect, moreover, that this relationship would hold both within a particular company and between companies. Yet, because the level of public attention is heterogeneous among industries, it is possible that the relationship between CSI and CSR differs between industries. We thus have the second hypothesis.

Hypothesis 2. The effect of CSI on CSR will be stronger in industries that are subject to greater public scrutiny with respect to CSI.

We might expect, for example, that the incentive to offset CSI with CSR is stronger in industries such as tobacco or oil, as both public and media attention tends to be more attuned to irresponsible actions on the part of companies in these industries.

Thus far our discussion of CSR and CSI has been based on the assumption that social (ir)responsibility occurs in a single dimension; that is, companies either do good or bad, and the good can offset the bad. But it may be the case that social values are focused more or less on different dimensions of CSR and CSI, and the extent to which CSR can offset CSI may vary between different dimensions. In effect, CSI in particular areas may be more salient to the public and therefore cause greater efforts on the part of companies to increase CSR. The third hypothesis captures this idea.

Hypothesis 3. Overall CSR should be increasing more in the dimensions of CSI that are of greater public concern.

This hypothesis enables variation in the effect among different dimensions of CSI, but it does not distinguish between dimensions of CSR. Nevertheless, it may be the case that the public distinguishes between different dimensions of both CSI and CSR, and substitution between them is less effective. This could imply that, in areas of particular public concern, CSR offsets for CSI are most effective within the same dimension. For instance, greater public attention to environmental concerns might mean that environmentally related CSR is the most effective (if not the only) way to offset environmentally related CSI. This possibility is consistent with the final hypothesis.

Hypothesis 4. Within a dimension of greater public concern, CSR should be most responsive to CSI within the same dimension.

Clearly a pattern in which the correlation between CSR and CSI is stronger within a dimension of concern would support the notion that CSR is driven, at least in part, by the incentive to offset CSI. The reason hypothesis 4 applies to only those dimensions of greater public concern is that

one could imagine CSR offsets in dimensions of greater public concern being more effective for CSI in any dimension, assuming there are not sufficiently large cost differences.

III. Data and Variables

The KLD Social Ratings data is published by KLD Research & Analytics, which is a Boston-based consulting firm that specializes in measuring corporate social performance. The KLD Social Ratings data is a very influential measure of corporate social performance, and many investment managers refer to KLD's recommendations when making decisions that require social screening. The data are also the most frequently cited source of corporate social performance within the academic literature.

The KLD data cover approximately 80 indicators in seven major issue areas: community, corporate governance, diversity, employee relations, environment, human rights, and product quality and safety. Each issue area has a number of strength and concern items, where a binary measure indicates the presence or absence of that particular strength or concern. For example, the community category contains seven strength items (charitable giving, innovative giving, non-U.S. charitable giving, support for housing, support for education, volunteer programs, and other strengths) and four concern items (investment controversies, negative economic impact, tax disputes, and other concerns). In addition to the seven major issue areas, the KLD data provide information about involvement in "controversial business issues," which include involvement with alcohol, gambling, firearms, military, nuclear power, and tobacco. Involvement in any of these sectors results in a negative indicator. In an appendix table, we list all of the KLD indicator variables and categorize them in their corresponding issue areas.

Each year, KLD evaluates the companies in the database on each item through various sources, including public records and media reports, monitoring of corporate advertising, surveys, and on-site evaluations. The KLD data begins in 1991, and we use the complete dataset between

1991 and 2005. The number of companies included in the dataset is not constant over the entire study period. Table 1 provides a summary of the index companies included each year and the approximate number. Between 1991 and 2000, the dataset included roughly 650 companies, all of which were listed in either the S&P 500 or the Domini 400 Social Index. The number increased to 1,100 companies in 2001-2002, with the inclusion of companies in the Russell 100 Index and the Large Cap Social Index. Then in 2003, the Russell 2000 Index and the Broad Market Social Index were added, bringing the total number of companies to approximately 3,100.

We use the KLD data to generate variables for CSR and CSI. We consider all the strength items to be consistent with CSR and all the concern items to be consistent with CSI. To construct variables for overall CSR and CSI, we separately sum all the 0-1 strength and 0-1 concern items, respectively. Note that this procedure places equal weight on each item. One complication with this procedure is that we want the variables to be comparable between years, and as indicated in the appendix table, some items have been added or removed between years. To account for this annual variation, we standardized the variables within each year. We then followed the same procedure to create CSR and CSI variables for different dimensions, corresponding to the different issue areas in the KLD data. This entailed separately summing the strength and concern items within each category. These variables were also standardized within each year to account for items being added, removed, or moved to a different category. While both CSR and CSI variables were created for each of the seven KLD issue categories, only a CSI variable was created for controversial business issues, as there are only concern indicators for this area.

We also collected annual financial and accounting data for all of the companies listed in the KLD Social Ratings database from 1991 through 2005. The accounting data is from the Compustat North America database, and the stock market data is from the CRSP database. In the empirical analysis, we use five variables to control for observable company characteristics: *ROA* is return on assets (earnings divided by total assets) and captures financial performance; *Debt* is

the company's debt ratio (total debt divided by total assets) and captures interest cost and leverage risk; *Assets* is total assets, *Sales* is net sales, *Employ* is number of employees, and these three variables are used to control for company size.

The final set of variables are industry categories for all of the companies included in the KLD data. We categorize companies based on SIC codes and aggregate them according to the categories in Waddock and Graves (1997), with one exception. Rather than create one category for computer, auto and aerospace, we break them into the two categories: computers and precision products, and auto and aerospace. Table 3 lists the different categories, the inclusive range of SIC codes, and the corresponding number of companies used in our empirical analysis (other information in the table will be discussed in the next section). We employ this breakdown of industries in order to make inter-industry comparisons without having to parse the data into too many categories. Furthermore, because these categories have also been used repeatedly in the literature on corporate social performance, it facilitates comparison to employ the same categorization here.

IV. Empirical Analysis

We structure the empirical analysis in order to test the hypotheses put forth in section II. The first hypothesis states that the amount of CSR should be increasing in the amount of CSI. To determine whether the data are consistent with this hypothesis, we specify a regression model as follows:

$$(1) \quad CSR_{it} = \alpha CSI_{i,t-1} + \beta ROA_{i,t-1} + \gamma Debt_{it} + \phi \ln Asset_{it} + \theta \ln Sales_{it} \\ + \phi \ln Employ_{it} + \mu_t + \nu_i + \varepsilon_{it}$$

where i indexes companies and t indexes years. In this specification, the variables CSI and ROA are lagged one year to address potential concerns with endogeneity, whereby CSR in a given year could affect CSI and ROA in the same year. We take the natural log of the company size variables

because of the large variation between companies in the data. The key coefficient for our purposes is α , and a positive and statistically significant coefficient estimate would be consistent with hypothesis 1.

Table 3 reports three different estimates of the parameters in specification 1: the pooled OLS, the between, and the fixed-effects (within) estimators. All three models produce estimates of α that are positive and highly statistically significant. The pooled OLS and between estimators are consistent under the assumption that v_i is uncorrelated with the other explanatory variables. The two models differ in the sense that identification for the pooled OLS estimates comes from variation both within and between companies, whereas identification for the between estimates comes from variation only between companies, as the data is time averaged. Nevertheless, the estimates are similar and indicate that an increase in CSI of one standard deviation in a given year results in an increase of .190 or .152 standard deviations in CSR the following year. The fixed-effects estimator is perhaps more preferable, however, as it does not rely on the assumption that v_i is uncorrelated with the other explanatory variables. The identification for this model comes from only variation year-to-year within companies. The fixed-effects estimate of α is lower, which suggests that the unobserved heterogeneity is positively correlated with CSI. The magnitude of the estimate implies that a one standard deviation increase in CSI in a given year results in an increase of .102 standard deviations in CSR the next year. Based on this model, we also find that CSI is increasing in total assets, but decreasing in net sales. In no model do we find a statistically significant relationship between the lagged return on assets (i.e., financial performance) and CSR.

The second hypothesis states that the relationship between CSR and CSI will be stronger in industries that are subject to greater public scrutiny with respect to CSI. Although it is difficult to say definitively which industries are subject to greater public scrutiny, we can investigate differences in the relationship between CSR and CSI among industries. We restrict attention to the

fixed-effects model and estimate specification (1) separately for each of the 14 industries. Table 3 reports only the estimates of α for each industry, along with the number of observations and R -squared for each model. The general finding is that the relationship between CSI and CSR is not negative in any industry: all coefficients are either statistically indistinguishable from zero or positive and statistically significant. The effect is positive in some of the industries that might be considered to have greater public scrutiny, including chemicals & pharmaceuticals, heavy manufacturing, auto & aerospace, and telephone & utilities. Among these industries the magnitude of the effect is larger in chemicals & pharmaceuticals and auto & aerospace. We also find positive effects in industries that tend to have a high public profile, such as computers & precision products, bank & financial services, and hotel & entertainment. We do not have a good explanation for why the relationship between CSI and CSR has the greatest magnitude in the hospital management industry, but as we discuss later, this result is not robust to alternative specifications.

The third hypothesis states that overall CSR should be increasing more in the dimensions of CSI that are of greater public concern. Here again it is difficult to know for certain which dimensions of CSI are of more public concern, but we can disaggregate our measures of CSI and separately estimate the effect on overall CSR. Specifically, we estimate models of the following form:

$$\begin{aligned}
 (2) \quad CSR_{it} = & \alpha_1 CSI_{cgov_{i,t-1}} + \alpha_2 CSI_{com_{i,t-1}} + \alpha_3 CSI_{div_{i,t-1}} + \alpha_4 CSI_{emp_{i,t-1}} \\
 & + \alpha_5 CSI_{env_{i,t-1}} + \alpha_6 CSI_{hum_{i,t-1}} + \alpha_7 CSI_{pro_{i,t-1}} + \alpha_8 CSI_{cbi_{i,t-1}} + \beta ROA_{i,t-1} \\
 & + \gamma Debt_{it} + \phi \ln Asset_{it} + \theta \ln Sales_{it} + \phi \ln Employ_{it} + \mu_t + \nu_i + \varepsilon_{it} .
 \end{aligned}$$

The only difference from specification (1) is that CSI is disaggregated into separate measures for each issue area in the KLD data. With specification (2), therefore, we can estimate the effect of CSI in each dimension on overall CSR.

In parallel with the aggregated results, Table 4 reports the results of the pooled OLS, the between, and the fixed-effects estimators. The results of the pooled OLS and between models are again quite similar. With the exception of diversity, all dimension-specific CSI coefficients that are statistically different from zero have a positive sign. An increase in CSI with respect to the dimensions of corporate governance, community, environment, human rights, and product quality and safety all result in more overall CSR. In contrast, more CSI with respect to diversity results in less overall CSR, but this result does not hold up in the fixed-effects model, where fewer of the coefficients are statistically significant. The results that remain are those for corporate governance, community, and environment. In our view, these dimensions of CSI are the ones that tend to be most salient in terms of the media and public concern. Hence these results can be interpreted in support of hypothesis 3. The other results in Table 4 relate to the effect of observable company characteristics, and these, not surprisingly, are very close to those already discussed in Table 2.

The final hypothesis states that within a dimension of greater public concern, CSR should be most responsive to CSI within the same dimension. To test for this, we disaggregate the measure of overall CSR into its different dimensions. We then estimate variants of specification (2) in which the left-hand side is a category-specific measure of CSR. We thus have seven different models corresponding to the different issue areas in the KLD data. For example, the model for corporate governance has $CSR_{cgov_{it}}$ as the dependent variable, where the category-specific CSR variables are all constructed and named in parallel with those for CSI.

Table 5 reports the fixed-effects estimates for the seven different models. The highlighted cells contain the coefficients on the dimension of CSI that corresponds to the same dimension of CSR in the dependent variable. In three dimensions the results indicate a positive and statistically significant relationship, in support of hypothesis 4. More CSI within the categories of community, environment, and human rights results in more CSR in the same category. The magnitude of the effect is strongest within the environment dimension. While we find no statistically significant

effect for corporate governance, diversity, and product quality and safety, the relationship is negative and statistically significant for the employee category. It appears, therefore, that when a company has an increase in CSI related to employee relations, there is also a decrease in CSR related to employee relations. At this point, we do not have a compelling explanation for why the relationship differs for this category.

One pattern that emerges quite strongly in the results of Table 5 is the inter-dimension effect of CSI with respect to corporate governance. While an increase in corporate governance CSI does not increase CSR in the same category, it does increase CSR in most other categories. The effect of $CSR_{cgov_{it}}$ is positive and statistically significant on CSR with respect to community, diversity, employee, environment, and product quality and safety. One possible explanation for these results stems from the fact that decision-making about CSR is a corporate governance issue. Hence, when CSI arises about corporate governance—such as concerns about high compensation or low political accountability—those responsible for corporate governance seemingly choose to offset with CSR in other dimensions, rather than reform governance itself. Other categories of CSI that appear to cause increases in different CSR categories are community and environment, both of which we have argued are among the more salient dimensions of social concern. Community is related to human rights, environment is related to corporate governance, and both are related to employee relations.

There are, of course, many ways to estimate regression models in order to test the hypotheses of interest in this paper. While we have presented the results of models that we consider to produce the best estimates, it is worth mentioning some alternative specifications that we have tried, but that have little effect on the main findings. Recall that we have used lagged values of CSI and ROA throughout in order to avoid potential endogeneity, whereby contemporaneous levels of CSR and CSI are determined jointly and CSR may affect financial performance. To evaluate the effect of using lagged variables, we estimated all models without lags, although we do not re-

port the results because they are very similar to those discussed already. With respect to the fixed-effects estimates there are only three qualitative differences: the estimate of α in Table 3 for hospital management becomes statistically insignificant, the coefficient on $CSIpro_{it}$ in Table 4 becomes statistically significant, and the negative coefficient on $CSIdiv_{it}$ becomes statistically significant in the diversity equation in Table 5. More generally, however, the coefficients have similar magnitudes regardless of whether or not we use lagged variables. This suggests that either contemporaneous endogeneity is not an important concern or using lagged variables is not an adequate correction. We side with the former explanation. With the lagged specifications, it seems less plausible that companies would increase CSI this year in anticipation of increasing CSR next year; for if this were the case, they could simply increase CSR immediately with perhaps greater effect.

Another possible critique, which is somewhat related, is that a single year is too short of a planning horizon over which to analyze company decisions relating CSI and CSR. We address this concern by estimating each of the models with a two-year lagged average of the CSI and ROA variables. Because this reduces the amount of observations included in the models even further, the magnitudes of the estimated coefficients change some, as does the statistical significance in some cases. Nevertheless, the overall pattern of results remains the same. It is also worth noting that a longer planning horizon is consistent with the results reported already for the between estimator. Because the estimator is based on time-averaged data for each company, it can be interpreted as treating all of the years as the same planning horizon and identifying the coefficients off of cross-sectional variation between companies.

V. Conclusions

This paper provides an empirical investigation of the claim that companies engage in CSR in order to offset CSI. The idea is that CSI poses a financial liability that companies seek to mini-

mize by compensating with CSR. We find general support for the causal relationship: when companies do more harm, they also do more good. The empirical analysis is based on an extensive 15-year panel dataset that covers nearly 3,000 publicly traded companies. In addition to the overall finding that more CSI results in more CSR, we find evidence of heterogeneity among industries, where the effect of CSI on CSR appears to be stronger in industries where CSI tends to be the subject of greater public scrutiny. We also investigate the degree of substitutability between different categories of CSR and CSI. Within the categories of community relations and environment—arguably those dimensions of social responsibility that are the most salient—there is a strong within-category relationship. Within the category of corporate governance, however, the within-category relationship is weak, but CSI related to corporate governance appears to increase CSR in most other categories. Thus, when CSI arises about corporate governance, companies seemingly choose to offset with CSR in other dimensions, rather than reform governance itself.

References

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Note: A more complete list of references remains to be added.

Table 1. Summary of companies included in the KLD dataset

Index	1991-2000	2001	2002	2003-2005
S&P 500	Yes	Yes	Yes	Yes
Domini 400 Social Index	Yes	Yes	Yes	Yes
Russell 100 Index	--	Yes	Yes	Yes
Large Cap Social Index	--	--	Yes	Yes
Russell 2000 Index	--	--	--	Yes
Broad Market Social Index	--	--	--	Yes
Approximate total number of companies covered	650	1100	1100	3100

Source: KLD Research & Analytics, Inc. (2006)

Table 2. Pooled OLS, between, and fixed-effects estimates of specification (1)

	(1)	(2)	(3)
	Pooled OLS	Between	Fixed-effects
CSI_{t-1}	0.190*** (0.030)	0.152*** (0.019)	0.102*** (0.024)
ROA_{t-1}	0.056 (0.065)	-0.012 (0.072)	0.005 (0.044)
$Debt$	-0.398*** (0.102)	-0.264*** (0.057)	0.003 (0.119)
$\ln Assets$	0.180*** (0.026)	0.149*** (0.014)	0.144** (0.071)
$\ln Sales$	-0.023 (0.024)	-0.061*** (0.016)	-0.216** (0.085)
$\ln Empty$	0.102*** (0.031)	0.031 (0.019)	0.098 (0.083)
Year dummies	Yes	Yes	Yes
Observations	11,041	11,041	11,041
Number of companies	2,914	2,914	2,914
R-squared	0.19	0.16	0.34

Notes: The dependent variable is CSR. Standard errors are reported in parentheses. Standard errors in columns (1) and (3) are clustered on companies. One, two, or three asterisks indicate statistical significance at the 10-, 5-, and 1-percent levels, respectively.

Table 3. Industry specific fixed-effects estimates of α in specification (1)

<i>SIC codes</i>	<i>Companies</i>	<i>Category</i>	<i>Coef.</i>	<i>Std. Err.</i>	<i>R²</i>	<i>Obs.</i>
1000 – 1799	136	Mining & Construction	0.026	(0.048)	0.24	529
2000 – 2399	97	Food, Textiles, Apparel	-0.095	(0.077)	0.41	487
2400 – 2799	99	Paper & Publishing	0.106	(0.089)	0.38	617
2800 – 2899	224	Chemicals & Pharmaceuticals	0.153*	(0.079)	0.51	887
2900 – 3199	45	Refining, Rubber, Plastic	-0.040	(0.106)	0.37	225
3200 – 3569	161	Heavy Manufacturing	0.114**	(0.055)	0.38	788
3570 – 3699	434	Computers & Precision Products	0.109*	(0.060)	0.38	1,568
3700 – 3799	57	Auto & Aerospace	0.177**	(0.071)	0.58	302
4000 – 4789	61	Transportation Services	0.007	(0.122)	0.47	253
4800 – 4991	211	Telephone & Utilities	0.102*	(0.061)	0.32	988
5000 – 5999	274	Wholesale & Retail	0.090*	(0.049)	0.37	1,150
6000 – 6799	657	Bank & Financial Services	0.127***	(0.047)	0.44	1,937
7000 – 7999	351	Hotel & Entertainment	0.176*	(0.090)	0.39	1,035
8000 – 8999	117	Hospital Management	0.263**	(0.123)	0.36	275

Notes: The dependent variable is CSR. The reported coefficient is for CSI. Other variables in specification one are included, although not reported. All standard errors clustered on companies. One, two, or three asterisks indicate statistical significance at the 10-, 5-, and 1-percent levels, respectively.

Table 4. Pooled OLS, between, and fixed-effects estimates of specification (2)

	(1)	(2)	(3)
	Pooled OLS	Between	Fixed-effects
<i>CSlgov_{i,t-1}</i>	0.160*** (0.020)	0.135*** (0.020)	0.076*** (0.014)
<i>CSicom_{i,t-1}</i>	0.043** (0.021)	0.053*** (0.019)	0.034** (0.015)
<i>CSIdiv_{i,t-1}</i>	-0.075*** (0.018)	-0.106*** (0.015)	0.003 (0.013)
<i>CSIemp_{i,t-1}</i>	0.018 (0.018)	0.014 (0.017)	-0.003 (0.013)
<i>CSIenv_{i,t-1}</i>	0.068** (0.031)	0.060*** (0.019)	0.045* (0.024)
<i>CSIhum_{i,t-1}</i>	0.078*** (0.024)	0.110*** (0.019)	-0.003 (0.017)
<i>CSIpro_{i,t-1}</i>	0.111*** (0.029)	0.132*** (0.020)	0.030 (0.019)
<i>CSIcbi_{i,t-1}</i>	-0.026 (0.023)	-0.008 (0.015)	0.017 (0.029)
<i>ROA_{t-1}</i>	0.068 (0.061)	0.007 (0.070)	0.012 (0.046)
<i>Debt</i>	-0.340*** (0.098)	-0.209*** (0.056)	-0.002 (0.114)
<i>lnAssets</i>	0.154*** (0.025)	0.121*** (0.014)	0.135* (0.070)
<i>lnSales</i>	-0.038* (0.023)	-0.071*** (0.016)	-0.223** (0.087)
<i>lnEmpty</i>	0.096*** (0.031)	0.018 (0.019)	0.110 (0.082)
Year dummies	Yes	Yes	Yes
Observations	11,041	11,041	11,041
Number of companies	2,914	2,914	2,914
R-squared	0.22	0.21	0.35

Notes: The dependent variable is CSR. Standard errors are reported in parentheses. Standard errors in columns (1) and (3) are clustered on companies. One, two, or three asterisks indicate statistical significance at the 10-, 5-, and 1-percent levels, respectively.

Table 5. Category-specific fixed-effects estimates of specification (2)

	Corporate governance	Community	Diversity	Employee	Environment	Human rights	Product quality & safety
<i>CSIGov_{i,t-1}</i>	0.002 (0.012)	0.051*** (0.017)	0.063*** (0.014)	0.044*** (0.014)	0.042** (0.017)	0.005 (0.010)	0.030** (0.014)
<i>CSIcon_{i,t-1}</i>	-0.010 (0.012)	0.054** (0.022)	0.022 (0.013)	0.035* (0.020)	-0.013 (0.022)	0.067** (0.031)	0.013 (0.018)
<i>CSIDiv_{i,t-1}</i>	0.010 (0.013)	0.008 (0.015)	-0.006 (0.012)	0.009 (0.017)	-0.002 (0.015)	-0.003 (0.016)	0.016 (0.016)
<i>CSIEmp_{i,t-1}</i>	0.007 (0.015)	-0.004 (0.015)	0.011 (0.012)	-0.032** (0.014)	-0.003 (0.019)	0.010 (0.023)	0.021 (0.016)
<i>CSIEnv_{i,t-1}</i>	0.059*** (0.021)	-0.027 (0.032)	-0.021 (0.022)	0.126*** (0.041)	0.122*** (0.042)	-0.009 (0.028)	-0.028 (0.030)
<i>CSIhum_{i,t-1}</i>	0.007 (0.018)	0.020 (0.020)	-0.004 (0.017)	-0.026 (0.020)	0.000 (0.026)	0.078** (0.037)	-0.024 (0.016)
<i>CSIPro_{i,t-1}</i>	0.001 (0.018)	0.041 (0.026)	0.049** (0.020)	-0.010 (0.022)	-0.002 (0.037)	0.004 (0.042)	0.012 (0.030)
<i>CSIcbi_{i,t-1}</i>	-0.019 (0.026)	-0.017 (0.033)	0.025 (0.028)	0.021 (0.031)	0.034 (0.042)	-0.048 (0.038)	-0.062** (0.028)
<i>ROA_{t-1}</i>	-0.109 (0.075)	-0.023 (0.038)	0.020 (0.047)	0.069 (0.057)	-0.027 (0.040)	0.003 (0.034)	0.057 (0.061)
<i>Debt</i>	-0.256** (0.107)	0.048 (0.120)	0.101 (0.112)	-0.192 (0.153)	0.130 (0.161)	-0.141 (0.120)	-0.225 (0.146)
<i>lnAssets</i>	0.073 (0.059)	0.055 (0.078)	0.121* (0.070)	0.153** (0.066)	-0.062 (0.088)	-0.055 (0.064)	0.042 (0.078)
<i>lnSales</i>	-0.056 (0.042)	-0.160** (0.076)	-0.216*** (0.082)	-0.069 (0.060)	-0.055 (0.090)	-0.097 (0.066)	-0.099* (0.051)
<i>lnEmpl</i>	-0.106 (0.075)	0.354*** (0.101)	0.161* (0.088)	-0.089 (0.089)	-0.132 (0.109)	0.185 (0.164)	-0.007 (0.089)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,041	11,041	11,041	11,041	11,041	11,041	11041
Number of companies	2,914	2,914	2,914	2,914	2,914	2,914	2,914
R-squared	0.02	0.13	0.25	0.16	0.13	0.01	0.10

Notes: The dependent variable is CSR for the specific category indicated in the column. Standard errors are reported in parentheses and are all clustered on companies. One, two, or three asterisks indicate statistical significance at the 10-, 5-, and 1-percent levels, respectively.

Appendix Table. List of the Strength and Concern Items in the KLD Social Ratings Database

<i>Category</i>	<i>Strength Items</i>	<i>Concern Items</i>
Community (<i>com</i>)	Generous Giving Innovative Giving Support for Housing Support for Education (added '94) Indigenous Peoples Relations (added '00, moved '02) Non-U.S. Charitable Giving Volunteer Programs (added '05) Other Strength	Investment Controversies Negative Economic Impact Indigenous Peoples Relations ('00-'01) Tax Disputes (added '05) Other Concern
Corporate Governance (<i>cgov</i>)	Limited Compensation Ownership Transparency/Communications (added '05) Political Accountability (added '05) Other Strength	High Compensation Tax Disputes (moved '05) Ownership Accounting (added '05) Transparency (added '05) Political Accountability (added '05) Other Concern
Diversity (<i>div</i>)	CEO Promotion Board of Directors Work/Life Benefits Women/Minority Contracting Employment of the Disabled Gay & Lesbian Policies Other Strength	Controversies Non-Representation Other Concern
Employee Relations (<i>emp</i>)	Union Relations No Layoff Policy (ended '94) Cash Profit Sharing Involvement Strong Retirement Benefits Health and Safety Strength (added '03) Other Strength	Union Relations Safety Controversies Workforce Reductions Pension/Benefits (added '92) Other Concern
Environment (<i>env</i>)	Beneficial Products & Services Pollution Prevention Recycling Clean Energy Transparency/Communications (added '96, moved '05) Property, Plant, and Equipment (ended '95) Other Strength	Hazardous Waste Regulatory Problems Ozone Depleting Chemicals Substantial Emissions Agricultural Chemicals Climate Change (added '99) Other Concern

Continued on next page.

Appendix Table. Continued

<i>Category</i>	<i>Strength Items</i>	<i>Concern Items</i>
Human Rights (<i>hum</i>)	Positive Operations in South Africa (added '94, ended '95) Indigenous Peoples Relations (added '02) Labor Rights (added '02) Other Strength	South Africa (ended '94) Northern Ireland (ended '94) Burma (added '95) Mexico (added '95, ended '02) International Labor (added '98) Indigenous Peoples Relations (added '00) Other Concern
Product Quality and Safety (<i>pro</i>)	Quality R&D/Innovation Benefits to Economically Disadvantaged Other Strength	Product Safety Marketing/Contracting Controversy Antitrust Other Concern
Controversial Business Issues (<i>cbi</i>)		Alcohol Gambling Tobacco Firearms Military Nuclear

Notes: All items are listed in their corresponding category. Unless otherwise indicated, the item has been included in the data from 1991-2005. Items that were add to the data or discontinued (i.e., ended) in intermediate years are indicated, as are the cases in which an item was moved from one category to another. Further details on the definition of each indicator are available from KLD Research & Analytics, Inc..