

Corporate Social Responsibility and corporate performance: evidence from a panel of US listed companies

Becchetti, Leonardo; Di Giacomo, Stefania; Pinnacchio, Damiano

Postprint / Postprint

Zeitschriftenartikel / journal article

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

www.peerproject.eu

Empfohlene Zitierung / Suggested Citation:

Becchetti, L., Di Giacomo, S., & Pinnacchio, D. (2008). Corporate Social Responsibility and corporate performance: evidence from a panel of US listed companies. *Applied Economics*, 40(5), 541-567. <https://doi.org/10.1080/00036840500428112>

Nutzungsbedingungen:

Dieser Text wird unter dem "PEER Licence Agreement zur Verfügung" gestellt. Nähere Auskünfte zum PEER-Projekt finden Sie hier: <http://www.peerproject.eu> Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

gesis
Leibniz-Institut
für Sozialwissenschaften

Terms of use:

This document is made available under the "PEER Licence Agreement". For more information regarding the PEER-project see: <http://www.peerproject.eu> This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

Mitglied der

Leibniz-Gemeinschaft



**Corporate Social Responsibility and corporate performance: evidence
from a panel of US listed companies**

Journal:	<i>Applied Economics</i>
Manuscript ID:	APE-05-0394.R1
Journal Selection:	Applied Economics
Date Submitted by the Author:	19-Aug-2005
JEL Code:	L21 - Business Objectives of the Firm < , M14 - Corporate Culture Social Responsibility <
Keywords:	corporate performance, corporate social responsibility, shareholder/stakeholder target

powered by ScholarOne
Manuscript Central™

Corporate Social Responsibility and corporate performance: evidence from a panel of US listed companies¹

Leonardo Becchetti
University of Rome Tor Vergata

Stefania Di Giacomo
University of Rome Tor Vergata

Damiano Pinnacchio
University of Rome Tor Vergata

Abstract

We investigate whether inclusion and permanence in the Domini social index affects corporate performance on a sample of around 1,000 firms in a 13-year interval by controlling for size, industry, business cycle and time invariant firm idiosyncratic characteristics. Our results find partial support to the hypothesis that corporate social responsibility is a move from the shareholders wealth to a multi-stakeholders welfare target. On the one side, permanence into the Domini index is shown to increase (reduce) significantly total sales per employee (returns on equity but not when large and R&D investing firms are excluded from the sample). On the other side, lower returns on equity for Domini firms seem nonetheless to be accompanied by relatively lower conditional volatility and lower reaction to extreme shocks with respect to the control sample.

An explanation for these findings, suggested by the inspection of Domini criteria, is that social responsibility implies, on the one side, decisions leading to higher cost of labour and of intermediate output, but may, on the other side, enhance involvement, motivation and identification of the workforce with company goals with positive effects on productivity.

Key words: social responsibility, stakeholders, corporate performance.

JEL classification codes: M14, L21.

¹ Paper presented at the XIII Tor Vergata Financial Conference. Support from the *Veritatis Splendor* Research Project on Social responsibility is acknowledged. The authors thank Helen Alford, Michele Bagella, Laura Boccadelli, Saverio De Santo, Iftekhar Hasan, James Lothian, Ferruccio Marzano, Francesco Nucci, Alberto Pozzolo for useful comments and suggestions and Osea Giuntella for his precious research assistance. The usual disclaimer applies.

1. Introduction

A first minimal definition of social responsibility is generally related to the corporate choice of not breaching laws and regulations when pursuing shareholders' wealth maximisation goals. A second approach considers that CSR is more than just following the law (McWilliams & Siegel, 2001), as it also involves actions which are expected to affect positively an identifiable social stakeholder's welfare. Our analysis is aimed at measuring the impact of this second definition of CSR on corporate performance.

The debate on the relevance and effects of this second type of corporate social responsibility is polarised around two opposite perspectives. A first one considers CSR as a violation of manager's mandatory duties, when it materialises into arbitrary management of "free cash flow" and higher expenditures which reduce shareholders' wealth (Friedman, 1962).² The reasoning of Friedman (1962) implies an efficient balance of powers between profit maximizing firms and social welfare maximizing institutions, which is far from the reality of our economic systems. Asymmetric information, agency costs and conflicts of interests are so widespread in our imperfect economic environment and institutions are distant from the benevolent planners depicted by theoretical models of some decades ago. All this considered, an important argument for the relevance of CSR comes from the observation that, in a society riddled by conflicts of interests and informational asymmetries, with weak institutions and incomplete contracts, the tenet of shareholders wealth maximization may be socially and environmentally untenable if corporate power is not offset by proper checks and balances from institutional action.

In the current "three-pillar" (institutions, corporations and the civil society) system what we observe are stakeholders creating bottom-up pressures on corporations in order to compensate institutional weaknesses in designing rules which should align firm behaviour to the goal of socially

² "Few trends could so thoroughly undermine the very foundations of our free society as the acceptance by the corporate officials of a social responsibility other than to make as much money for their shareholders as possible".

1
2
3 and environmentally sustainable development (Adriani and Becchetti, 2004). This pressure induces
4 corporations to signal their social responsibility in order to minimize attrition with stakeholders. In
5 this framework, CSR often originates not from an autonomous decision of managers, but from
6 external pressures from consumers or institutions.
7
8
9
10
11

12 Well aware of these linkages between corporations, institutions and consumers, a different and
13 broader view on CSR considers the social role of corporations and their relationship not just with
14 shareholders, but with the larger set of firm stakeholders. In this perspective Freeman (1984)
15 emphasizes that, if stakeholders have voice, the socially responsible behaviour of corporations may
16 be a rational strategy to minimize conflicts and optimize synergies in their complex network of
17 relationships with various stakeholders (local communities, consumers, environmentalist
18 associations, subcontractors, etc.).
19
20
21
22
23
24
25
26
27
28

29 On this line Tirole (2001) argues that the concept of stakeholder value recognizes that corporate
30 activity may create negative externalities which need to be counterbalanced, either by institutional
31 rules or by corporations themselves. In such case, creating shareholders value is not enough to
32 maximize total welfare and management should aim at “*maximizing the sum of various stakeholder*
33 *surpluses.*” He is though sceptical on the possibility of creating incentives which can induce
34 managers to behave in a socially responsible way. First, he observes that the difficulty of measuring
35 SR fosters managerial opportunistic behaviour. Second, he argues that a SR company, by definition,
36 should shifts its focus from the maximisation of shareholders’ wealth to a multi-stakeholders
37 welfare approach. The consequence of this move may be a relatively lower return on equity which
38 may make her object of a takeover from a profit maximising raider.
39
40
41
42
43
44
45
46
47
48
49
50
51

52 A first reply to Tirole (2001) is that several social labelling organisations have born to overcome
53 informational asymmetries in this field. Hence, a corporation is nowadays considered as being
54 socially responsible not just when it claims to be as such, but only if it complies with a set of
55 externally fixed behavioural criteria. Opportunistic behaviour is obviously always a temptation but
56
57
58
59
60

(...)If businessmen do have social responsibility other than making maximum profits for stockholders, how are they

1
2
3 external monitoring and reputational costs from being caught cheating on SR may be a strong
4
5 deterrent. The second Tirole's objection (takeover risk) is an interesting one and is somewhat related
6
7 to our empirical research aimed at verifying whether SR firms create relatively more or less
8
9 shareholder value than the rest of the economy.
10
11

12 Overall, an interesting issue in the above mentioned debate on CSR is that CSR may definitely be a
13
14 superior corporate behaviour in terms of social welfare if the expected reduction of negative
15
16 externalities is accompanied by a creation of aggregate economic value (and not merely shareholder
17
18 return) equal or superior to that of non socially responsible firms. If this is true, a powerful
19
20 incentive for corporations to adopt a SR attitude, beyond enlightened altruism, exists. This is why
21
22 the evaluation of the effects of SR on corporate performance is a relevant topic in the current
23
24 literature on CSR.
25
26

27
28 Our paper focuses on this issue and is divided into seven sections (including introduction and
29
30 conclusions). The second section discusses the expected costs and benefits arising from the
31
32 adoption of a SR behaviour. The third section briefly surveys the empirical literature on the effects
33
34 of SR on corporate performance. The fourth section analyses SR criteria of a widely acknowledged
35
36 standard (the Domini index which will be the benchmark of our empirically analysis) focusing in
37
38 particular on their potentially cost increasing and productivity enhancing characteristics. The fifth
39
40 section presents and comments our descriptive and econometric findings on the impact of entry,
41
42 permanence and exit from the Domini index of SR. The sixth section analyses whether the lower
43
44 return on equity of SR firms is compensated by reduced conditional volatility of SR firms stock
45
46 returns.
47
48
49
50
51

52 53 54 55 **2. Expected costs and gains from socially responsible behaviour** 56 57 58 59 60

to know what it is? Can self private individuals decide what the social interest is ?" (Friedman, 1962)

1
2
3 Before testing directly the impact of SR on corporate performance we briefly survey theoretical
4 grounds which might support the hypothesis of a non negative relationship between SR and
5 corporate performance. As a starting point we must consider - as it will be clear from the analysis of
6 the characteristics of Domini criteria - that SR involves the undertaking of a set of actions which are
7 potentially cost increasing (such as higher attention to workers conditions within the firm and in
8 subcontracting companies, adoption of more environmentally, and often more costly, productive
9 processes, etc.).

10
11 These sources of additional costs need to be compensated by some potential benefits to be
12 economically sustainable. A first one, already mentioned, is represented by the creation of
13 *reputational* capital which may help the company to obtain more favourable terms of trade when
14 negotiating with various stakeholders (Cornell and Shapiro, 1987; Bowen et al., 1995; Jones, 1995).

15
16 A second one considers that SR may positively affect workers productivity if we move away from
17 the standard microeconomic approach which regards labour productivity as solely related to
18 individual skills, human capital and expected remunerations. In this perspective, a new strand of the
19 literature starts modelling workers productivity as being affected not just by the usual set of
20 individual worker variables, but also by intrinsic motivation, coworkers behaviour or working
21 conditions, and by the workers identification with the goals of their firm (Agell and Lundberg,
22 1999; Bewley, 1999, Campbell and Kamlani, 1999). Social preferences³ (Fehr- Schmidt, 1999; Fehr
23 and Schmidt, 2001; Sobel 2001) and gift exchange models (Akerlof, 1982) are two leading fields in
24 this literature .

25
26 In this perspective, it is possible that the move to (exit from) CSR may significantly increase
27 (reduce) intrinsic workers motivation, thereby affecting positively (negatively) their productivity.

28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

3. The empirical literature on the impact of CSR

³ According to a definition of Fehr and Falk (2002) "a person exhibits social preferences if it does not only care about the material resources allocated to it but also cares about the material resources allocated to other relevant reference agents".

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A huge number of empirical papers have tested in the past the relationship between social responsibility and corporate performance. Strangely enough, almost all of these papers have been published in the business and not in the economics literature, even though the topic of CSR is obviously relevant for both.

15
16
17
18
19
20
21
22
23
24
This “anomaly” gives us the advantage of providing an original contribution to this specific field by testing the relationship between the two variables with methodological approaches which are standard in economics, but are not always used in the business literature.

25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
With some approximation we can divide the existing empirical papers into three groups.

The first finds a positive relationship between CSR and corporate performance. Solomon and Hansen (1985) find that the costs of having a high level of CSR are more than compensated by benefits in employee morale and productivity. Pava and Krausz (1996) and Preston and O’Bannon (1997) observe that CSR is positively associated with financial performance, while positive synergies between corporate performance and good stakeholders relationships are found by Stanwick and Stanwick (1998) and by Verschoor (1998). Ruf et al. (2001) find that change in CSR is positively associated with growth in sales and that returns on sales are positively associated with CSR for three financial periods. Simpson and Kohers (2002) document a positive link between social and financial performance on a sample of banking firms.

A second group of papers finds no significant direction in the link between CSR and corporate performance. Mc Williams and Siegel (2001) observe that the financial performance of the Domini index constituents is not significantly different from that of a control sample when per capita R&D expenditure is added among regressors. Other papers finding inconclusive results are those of Anderson and Frankle (1980), Freedman and Jaggi (1986) and Aupperle, Carroll and Hatfield (1985).

A third group of contributions documents a negative relationship between CSR and corporate performance which is consistent with the managerial opportunism hypothesis. Preston and

1
2
3 O'Bannon (1997) suggest that managers reduce expenditures on social performance to increase
4 short-term profitability and their personal compensation, but, when financial performance is poor,
5 they divert attention by expenditures on social programs. Other papers documenting a negative
6 relationship are those of Freedman and Jaggi (1982), Ingram and Frazier (1983), Waddock and
7 Graves (1997).
8
9

10 How to interpret these controversial results ? In the well known story about the blind men and the
11 elephant each blind man can get only part of the truth by touching a part of the body of the elephant.
12 The group of blind men acquires reasonable knowledge of the phenomenon under investigation (the
13 elephant) only when the partial and insufficient information collected by each individual is pooled.
14

15 The story suggests that the above described differences in findings across the three groups of papers
16 do not necessarily reflect mistakes or inaccuracies, but, most often, differences in perspective
17 (observation periods, companies included in the sample, measures of corporate performance and
18 methodological approaches adopted for the empirical analysis). It also suggests that the
19 combination of them, or an empirical research broadening the scope of the analysis and integrating
20 many of these perspectives, may give us a more complete picture of the effects of SR on corporate
21 performance (our "elephant").
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39

40 Our paper follows this direction as it aims to implement the existing research in the field from
41 several points of view. First, it uses panel data and takes into account a significantly long time
42 period, controlling for business cycle effects with year dummies and for spurious correlations
43 between variables with cointegrating panel techniques. Second, it introduces firm specific intercepts
44 (fixed effects), thereby separating the impact of CSR from time invariant, firm idiosyncratic,
45 characteristics. Third, it explores the impact of exit from CSR with specific reference to a range of
46 different motivations (labour relationships, sales of weapons, corporate governance, environment)
47 on corporate performance. Fourth, it proxies the relative risk of holding CSR stocks by testing for
48 the difference in conditional volatility and in its reaction to shocks between CSR and control sample
49 stocks.
50
51
52
53
54
55
56
57
58
59
60

4. The Social domini criteria

The Domini Social Index 400 (DSI 400) developed by Kinder, Lydenberger and Domini has created a series of widely acknowledged SR criteria which gradually became an international standard.⁴

These criteria determine the inclusion of stocks into the index itself and, with it, the opportunity of being selected in portfolios of ethical funds.⁵

Social domini criteria are divided into eight big domains: i) community; ii) corporate governance; iii) diversity; iv) employee relations; v) environment; vi) human rights; vii) product quality; viii) controversial business issues. For each of them the Domini index identifies strengths and weaknesses, and lists a series of corporate actions falling under one of the two (see Appendix 1).

4.1 Domini requirements with cost increasing potential

The inspection of these criteria immediately shows that there are no “free lunches” in SR, revealing how several SR actions are clearly cost-increasing. In the *community* section we find as strengths *charitable giving, support for education and support for housing*. In the *diversity* section we find work benefits (*the company has outstanding employee benefits or other programs addressing work/life concerns, e.g. childcare, eldercare or flextime*). In the employee relations section we find as strengths *cash profit sharing programs, health and safety strength and strong retirement benefit*

⁴ The index methodology presents advantages and drawbacks. Its advantages are that it reflects historical concerns of investors, keeps track of CSR evolution in time and includes all dimensions identified as important in CSR. Its first limit is the absence of a measure of intensity in corporate performance. Another important problem with the index is in the adoption of a “best in class process” in which relative, but not absolute, best SR performers in some industries have been included with the specific aim of keeping the index sufficiently diversified, thereby allowing ethical fund investors to adopt well diversified passive investment strategies. Finally, a third limit is that the index must have a constant number of constituents. Therefore, for any exit a new entry is needed, with the effect that entry timing is determined not solely by firm progress on CSR, but also by rebalancing needs.

⁵ The weight of these funds in financial markets is growing considerably. According to *2003 Report on Socially Responsible Investing Trends in the United States* the industry of ethically managed mutual fund assets represented \$2.16 trillion dollars when including all US private and institutional ethically screened portfolios. Based on these figures one out of nine dollars under professional management in the United States was part of socially responsible portfolios.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

programs. In the environment section we find as strengths clean air programs. This item is for companies which have taken significant measures to reduce [their] impact on climate change and air pollution through use of renewable energy and clean fuels or through energy efficiency or for companies that have demonstrated a commitment to promoting climate-friendly policies and practices outside its own operations. The impact of these measures on costs is not necessarily positive, but it is highly suspected to be so. In the human right section we find the item of Indigenous Peoples Relations Strength (the company has established relations with indigenous peoples near its proposed or current operations –either in or outside the U.S- that respect the sovereignty, land, culture, human rights and intellectual property of the indigenous peoples) and Labor Rights Strength (the company has outstanding transparency on overseas sourcing disclosure and monitoring or has particularly good union relations outside the U.S.). Here again, good relationships with local workers and stakeholders are expected to have some costs in terms of missed opportunities of labour cost reductions.

4.2 Domini requirements with cost decreasing (or productivity enhancing) potential

Against all these potentially cost increasing factors we find only one clearly cost-decreasing SR initiative in the *corporate governance* section (the limited compensation of the manager) and a profit or productivity enhancing domain related to product quality.

On the other hand, our inspection of Domini affiliation also suggests that some of the same cost increasing items commented above may have a dual effect including, on the positive side, the capacity of increasing workers participation and productivity. First, limits to managerial compensation may increase workers' satisfaction if the latter have inequality aversion in their preferences. Second, the presence of a program of *Work/Life Benefits (the company has*

The same Report illustrates that, from 1995 to 2003 the rate of growth of assets involved in social investing, through screening of retail and institutional funds, shareholder advocacy, and community investing has been 40 percent higher than all professionally managed investment assets in the U.S (240 against 174 percent).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

outstanding employee benefits or other programs addressing work/life concerns, e.g. childcare, eldercare or flextime) may increase workers involvement with the company.

Last but not least, a positive reaction of workers in terms of productivity may also be generated by strength factors in the *employee relations* section. These are: i) *Cash Profit Sharing (the company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce)*; ii) *Employee Involvement (the company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees, gain sharing, stock ownership, sharing of financial information, or participation in management decision-making)*; iii) *Health and Safety Strength (the company is noted by the US Occupational Health and Safety Administration for its safety programs)*; iv) *Retirement Benefits Strength (the company has a notably strong retirement benefits program)*; v) *Union Relations (the company has a history of notably strong union relations)*; vi) *Other Strength (the company has strong employee relations initiatives not covered by other KLD ratings)*.

The goal of our paper is to test whether the cost increasing factors related to CSR (and, specifically, to Domini affiliation) prevail over the factors which should increase workers motivation and lead to higher productivity. Furthermore, we want to evaluate whether, as it is implicit in its same characteristics, CSR choice may lead to some forms of redistribution of corporate value from shareholders to stakeholders.

5.1 The econometric specification and descriptive findings

In order to test the impact of Domini affiliation on corporate performance we choose the following specification:

$$Y_{it} = \alpha_0 + \gamma_i + \alpha_1 \log(\text{Size}) + \alpha_2 \text{Domini} + \alpha_3 \text{Entry} + \alpha_4 \log(\text{Postexit}) + \sum_{k=1}^{n-1} \beta_k \text{Reasexit}_k + \sum_{t=1}^{m-1} \delta_t \text{Year}_t + \varepsilon_{it}$$

(1)

1
2
3 where Y_{it} is a chosen performance variable (eg. return on equity, return on investment, return on
4 capital employed,⁶ total sales per employee), γ_i is the time invariant firm idiosyncratic (fixed) effect,
5
6
7
8 $Size$ is the number of firm employees, $Domini$ is a (zero/one) dummy measuring affiliation to the
9
10 Domini 400 index; $Entry$ is a dummy which takes the value of one in the year of entry into the
11
12 Domini 400 index and zero otherwise; $Postexit$ is a variable measuring the number of years
13
14 following exit from the Domini 400 index; $Reasexit_k$ is the k^{th} dummy taking the value of one in
15
16 the year of exit when the specific exit rationale (*Military, Environment, Productquality, Badgovnce*
17
18 *and Badlabour*) applies. Finally, $Year_t$ is a year t dummy picking up year effects.

19
20
21
22 In our estimate we therefore try to disentangle the effects of corporate social responsibility (proxied
23
24 by Domini affiliation) from business cycle effects (year dummies) and idiosyncratic characteristics
25
26 (e.g. management quality) of each firm (proxied by the fixed effect measured through the firm
27
28 specific intercept component u_i).

29
30
31
32 To provide an example of the relevance of this approach, it may happen that the association of
33
34 Domini affiliation with a positive performance in a given dependent variable depends from the fact
35
36 that high performers are more likely to search for Domini affiliation than low performers. In this
37
38 case the causation would be reversed with good performance causing Domini affiliation and not
39
40 vice versa. In our estimate fixed effects should capture differences in ex ante characteristics and the
41
42 Domini variable should measure just the net effect of CSR.

43
44
45
46 The use of fixed effect controls for measurement errors arising from the use of industry dummies as
47
48 well. The identification of firm specific characteristics goes in fact deeper than the identification of
49
50 industry characteristics, since industry classifications are becoming always more imperfect
51
52 taxonomies for firms with increasingly diversified product mix.

53
54
55
56
57
58
59
60

⁶ Return on capital employed is equal to Operating income/(Shareholders' equity + Interest bearing liabilities). Its advantage is that it includes in the denominator and indicator which depends on firm indebtedness and therefore does not suffer, like ROE, of sensitiveness to firm leverage (i.e. highly leveraged firms tend, by definition, to have significantly higher ROE than non highly leveraged ones)

1
2
3 Table 1 presents preliminary descriptive findings on the distribution of variables used for the
4 econometric analysis showing that the median value for ROI (ROE) is around 10 (15) percent and
5
6 that more than 5 (10) percent of ROI (ROE) observations are negative.
7
8

9
10 Table 2 illustrates descriptive findings on the distribution of the dependent variables selected for the
11 econometric analysis according to the three subgroups of firms which are never (*non domini*),
12 always (*sempredomini*) or, at some moment in the observation period, (*domini*) in the Domini
13 index. The analysis is provided for the overall sample and for the size and R&D/non R&D investing
14 subsamples which we will consider also in the econometric analysis. A relevant finding is that
15 average *non domini* total sales per employee (return on equity) are (is) always lower than in the
16 *sempredomini* subgroup with the exception of the small cap (large cap) subsample. Overall,
17 descriptive findings do not help much in obtaining a clear cut picture of the impact of SR on
18 corporate performance and econometric analysis is needed to disentangle ex ante identity from
19 Domini affiliation effects.
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

36 **5.2 Results from econometric analysis**

37
38
39
40

41 The standard techniques applied to time series require, before estimating a model, that series are
42 I(0) or, if not, that they have at least one cointegrating vector. This is to avoid that significant
43 relationships between the dependent variable and the regressors are led by spurious correlations.
44 These techniques are now being applied also to the time dimension of individuals in panels. The
45 application of these techniques to panel data is complex and requires the formulation of joint
46 hypotheses on the stationarity of the time series of each of the individuals (in our case firms) being
47 part of the panel.
48
49
50
51
52
53
54
55
56

57 We first test for the stationarity of non discrete series in our estimates (firm size, net sales per
58 worker, return on equity, on investment and on capital employed) by using the Fisher's test,
59 developed by Maddala and Wu (1999), based on the p-values from N independent unit root tests.
60

1
2
3 The null hypothesis assumes that all series are non stationary. The test has two alternatives. The
4 homogeneous alternative (all series are stationary) and the heterogeneous alternative (some series
5 are stationary and some others are not). The null hypothesis is rejected for our dependent variables
6 (see Table 3.1).
7
8
9
10
11

12 The problem is that with the Fisher test we cannot discriminate between the homogeneous and the
13 heterogeneous alternative. For this reason we add the Im-Pesaran-Shin (2003) diagnostic in which
14 the null hypothesis that all series are nonstationary is tested against the heterogeneous alternative.⁷
15
16 The test does not lead to the rejection of this hypothesis for the net sales and net cash flow per
17 employee series. The finding is consistent with the result of the Fisher test performed on individual
18 (firm) series of the additional continuous variables (such as firm size) showing in some cases
19 stationarity and in some others non stationarity.⁸
20
21
22
23
24
25
26
27
28

29 Once verified the existence of nonstationarity in at least some of the time dimensions of our
30 individual firm series, we can still perform a regression in levels with these variables if we find the
31 presence of common stochastic trends (i.e. of cointegration). To check for it we use the Nyblom and
32 Harvey (2000) test which has the advantage of allowing for serial correlation in residuals and of not
33 requiring any model to be estimated.⁹ The test rejects the null hypothesis of absence of common
34 stochastic trends under the assumption of non IID standard errors (NH adj. t in Table 3.2), thereby
35 identifying the presence of cointegrating vectors which allow us to estimate the model in levels.
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52

53 ⁷ Among authors emphasizing the importance of testing for panel cointegration to avoid spurious regressions in panel
54 estimates see Gerdtham and Lothgren (2002) and Okunade and Karakus (2001). The latter also provide one of the
55 earlier applications of the Im et al. (2003) test which is performed also in this paper. For an application of panel
56 cointegration to financial ratios see Peel et al. (2004)

57 ⁸ Omitted for reasons of space and available from the authors upon request.

58 ⁹ The test does not require model estimates because is based on the rank of covariance matrix of the disturbances
59 driving the multivariate random walk. If this rank is equal to a certain number of common trends, this implies the
60 presence of cointegration and vice-versa. If the rank is equal to zero, as in the null hypothesis, then there are no
common trends among the variables. Thus, failure to reject the null hypothesis of zero common trends is also an
indication that the variables do not form a cointegrated combination.

1
2
3 A first important result of the estimates presented in tables 4.1-4.4 shows that the joint
4
5 insignificance of the fixed effects is rejected, confirming that idiosyncratic factors matter and their
6
7 omission is likely to bias empirical findings.
8
9

10 Our empirical findings document that permanence into Domini index is associated with 13 percent
11
12 higher total sales per employee after controlling for size, business cycle effects and idiosyncratic
13
14 firm characteristics (Table 4.1, column 1). The positive total sales performance is consistent (even
15
16 though not coincident) with findings from Stanwick and Stanwick (1998), Verschnoor (1998) and
17
18 Ruf et al. (2001) mentioned in section 3. In the same estimate we find that doubling the years after
19
20 Domini exit reduces total sales per employee by 23 percent in the overall sample and is associated
21
22 with a significantly reduced performance (around 21, 23 and 23 percent respectively for each of the
23
24 three profitability indicators, ROI, ROE and ROCE) (Table 4.1, columns, 2, 3 and 4). These
25
26 findings are not at odds with the Friedman (1984) hypothesis that CSR helps to reduce transaction
27
28 costs with stakeholders but may be also explained by a distress factor which affect both
29
30 performance and exit from the Domini.
31
32
33
34

35
36 Columns 2 to 4 (table 4.1) show that Domini affiliation is associated with a reduction of return on
37
38 investment, return on equity and return on capital employed of around 10, 6 and 10 percent
39
40 respectively. Note that the effect of Domini affiliation on ROE is not significant in the overall
41
42 sample estimate but that it becomes so when large or R&D investing firms are excluded from the
43
44 sample (Tables 4.2-4.6). This negative effect is compensated by the positive impact of entry into the
45
46 Domini index on ROI and ROCE in the estimates in which large caps are excluded from the sample
47
48 (table 4.2) More generally, estimates in Table 4.2 in which large caps are excluded from the sample
49
50 reveals an overall deterioration of the Domini effect since the positive impact on total sales
51
52 disappears and the negative effect on profitability indicators become stronger.
53
54
55
56

57 Moreover, negative post exit effects on profitability indicators seem to exist (and to be stronger) for
58
59 non large capitalisation firms (around 62 percent lower return on capital employed and 60 percent
60
lower return on investment) (table 4.2).

1
2
3 When we reestimate the model for non R&D investing firms only the results of the overall sample
4 are confirmed with some slight differences: i) Domini affiliation has a significant effect on total
5 sales per worker even when large caps are excluded from the sample (16 percent with large caps
6 and 9 percent without large caps) (tables 4.3 and 4.4, column 1); ii) the negative effects of Domini
7 affiliation on profitability indicators tends to be larger in these subsamples (tables 4.3 and 4.4,
8 columns 2 to 4).
9

10 Overall, findings reported in tables 4.1-4.4 outline a picture in which SR seems consistent with the
11 shift in focus from shareholders wealth maximisation to a multistakeholders welfare approach. SR
12 firms productivity is equal or, in some cases, significantly higher than in the control sample while,
13 at the same time, return on equity is significantly lower. These findings clearly match with our
14 interpretation of SR criteria described in section 4. Such criteria are shown to generate transfers of
15 wealth to stakeholders and workers, but are also interpreted as having the potential effect of
16 increasing workers motivation and productivity.
17

18 To control further for endogeneity and reverse causation we wonder whether some permanent
19 characteristics distinguish Domini affiliated firms from the control sample or, in other terms, if
20 firms which will be included in the Domini index are idiosyncratically different in quality with
21 respect to the control sample.
22

23 We therefore test whether average fixed effects for the control sample and for firms which are in the
24 Domini index at some moment in our sample interval are significantly different. Our findings (last
25 rows of tables 4.1-4.6) show that SR firms have significantly higher net sales and return on
26 investment fixed effects before and after controlling for size and industry effects (in all of the six
27 estimated samples) in the overall and in all subgroup estimates. The difference between fixed
28 effects of Domini and non Domini firms is not significant in the return on equity estimate. Our
29 interpretation is that Domini affiliation significantly reinforces traits of corporate identity which
30 were already in place before entry. Summing up all our findings we are led to conclude that: i) SR
31 firms have ex ante higher total sales per worker and higher return on investment, ii) their
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 permanence into the Domini index generates a new significant independent effect in one case
4 consistent (higher total sales per worker) and in another not consistent (lower return on equity) with
5
6
7
8 ex ante characteristics.
9

10 11 12 13 **6. Domini affiliation and conditional stock return volatility** 14 15

16
17 The relatively lower ROE of SR firms does not necessarily mean that SR stocks are not a good
18 business. The comparative performance of equities must be obviously evaluated on the risk-return
19 perspective. In this perspective, relatively lower returns on equity of SR firms may be compensated
20 by relatively lower risk. Following Boccardelli and De Santo (2005) we test the relative risk of a
21 buy-and-hold investment strategy on our SR stocks *vis à vis* the same strategy on our control
22 sample by building an index of stock returns for the two subsamples and estimate their conditional
23 volatility with a simple GARCH (1,1)¹⁰ (Nelson, 1989; Engle, 1990; Engle and Ng, 1993).
24
25
26
27
28
29
30
31
32

33 The chosen specification for stock return behaviour (mean equation) is:

$$34 \quad R_t = \alpha_0 + \sum_i \gamma_i R_{t-i} + \sum_j \beta_j DW_j + \delta DJ + \varepsilon_t \quad (2)$$

35
36 where R_t is the average subgroup (SR or control sample) one-day compounded return, DW_j is the
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

where R_t is the average subgroup (SR or control sample) one-day compounded return, DW_j is the
j-th dummy measuring “day of the week” effects, DJ is a dummy for “January” effect and
 $\varepsilon_t \approx (0, h_t)$ is the error term.

The standard specification adopted for testing the asset market volatility in the second (variance)
equation of a GARCH (1,1) model is given by:

$$h_t = b_0 + b_1 \varepsilon_{t-1}^2 + b_2 h_{t-1} \quad (3)$$

¹⁰ Preliminary tests on normality and ARCH LM tests show that observed returns are non normal and have an ARCH structure. More complex (asymmetric, nonlinear) conditional heteroskedasticity models have also been estimated giving results which are not substantially different in terms of the effect of SR. Results are omitted for reasons of space and available upon request.

1
2
3 where h_t is the conditional variance of the error term in (2), ε_{t-1}^2 measures the impact of news on
4
5 conditional variance and h_{t-1} is the conditional variance autoregressive component which measures
6
7 persistence of the dependent variable.
8
9

10
11 Mean equations for the two (Domini and control sample) indexes (table 5) have some common
12
13 elements. One period lagged daily log returns have small but significant effects on the dependent
14
15 variable. Moreover, the control sample (non SR firms) exhibits also a negative and significant
16
17 Monday effect, consistently with several previous results in literature (Taylor, 1986).
18
19

20
21 Kurtosis and skewness tests, performed on the residuals obtained from the best estimation of the
22
23 base equations, show that the distribution is not normal. The existence of excess kurtosis confirms
24
25 the “stylized fact” of thick tails for financial time series, which was firstly observed by Mandelbrot
26
27 (1963 a, b). The sum of the ARCH and GARCH coefficients is very close to one, indicating that
28
29 volatility shocks are quite persistent (but lower than one).
30
31

32
33 A relevant finding is that 95 percent confidence intervals of the first equation intercept overlap and
34
35 therefore we find no difference in excess returns between the SR and the non SR portfolios.
36
37

38
39 The main differences between the two indexes are that the Monday effect is significant and negative
40
41 only in the control sample index and that the intercept in the second equation is significantly lower
42
43 (at 90 percent) for the Domini index. Figure 1 plots conditional volatility for the two indexes and
44
45 confirms that the conditional volatility of the Domini index is almost always lower than that of the
46
47 control sample index.
48
49

50
51 The quality of the SR index is not just that of having relatively lower conditional volatility but also
52
53 that of having a significantly reduced volatility reaction to large shocks. In Table 6 the model is
54
55 reestimated by adding a dummy which tests the change in conditional volatility after the burst of the
56
57 Nasdaq stock market bubble in March 2000. The approach used for evaluating the impact of
58
59 changes in stock price volatility after news' releases or regime shifts follows previous research from
60
Choi and Kim (2002), Crain and Lee (1996), Becchetti and Caggese (2000) and Wang et al. (2002).

1
2
3 Our findings show in this case that the impact is significantly lower in the social responsibility
4
5 index.
6

7
8 A possible interpretation of this result hinges upon the different nature of those investing SR and
9
10 non SR portfolios. According to the *2003 Report on Socially Responsible Investing Trends in the*
11
12 *United States*, the highest growth component (80 percent) in the growth of assets involved in social
13
14 investing from 1995 to 2003 has been that of community investing¹¹. The nature of the latter, and
15
16 generally of most SR investors, is therefore expected to be “more patient” and long-term oriented
17
18 with respect to non SR investors. An indirect evidence of it is provided in the same report by the
19
20 comparison of the accumulated equity fund flows of SR and non SR funds in the US between
21
22 January 2001 and May 2003 where we assist to a constant growth in the stock of SR fund assets
23
24 compared to a sharp drop in the non SR funds in the mid of this period.
25
26
27
28
29
30

31 **7. Conclusions**

32
33
34
35
36 Corporate social responsibility is a multifaceted complex phenomenon involving a set of actions
37
38 which are expected to affect significantly cost structures and workers participation to productive
39
40 activity. As a consequence, the scope of empirical investigations on the effects of CSR on corporate
41
42 performance must be such that the highest number of hidden dimensions of the problem can be
43
44 discovered and analysed.
45
46

47
48 This paper tries to do so by enlarging the observed estimation period, by discriminating among
49
50 different reasons for entry or exit from a selected measure of CSR and by controlling for business
51
52 cycle effects and for time invariant idiosyncratic characteristics of the observed firms.
53
54

55
56 Our empirical approach allows us to disclose many unexplored dimensions of the CSR/corporate
57
58 performance relationship.
59
60

¹¹ Community development financial institutions primarily provide loan financing to businesses in areas that need economic development. CDFIs make loans that are generally "unbankable" by traditional industry standards because of past credit problems, the size of the loan request, limited equity from founders or limited collateral.

1
2
3 Our findings are consistent with the hypothesis that CSR is expected, in principle, to redirect the
4 focus of corporate activity from the maximization of shareholders to that of stakeholders interests.
5
6 We observe in fact that workers in SR firms produce “larger cakes” (total sales per employee are
7 significantly higher), but a smaller portion of these cakes goes to shareholders (returns on equity
8 are significantly lower when large caps or R&D investing firms are not in the sample and returns on
9 capital invested and on investment are always lower). The “penalty” that social responsibility
10 imposes on shareholders (relatively lower return on equity) seems to be compensated by reduced
11 conditional volatility of SR vis à vis the control sample. In fact, if the ROE of socially responsible
12 firms is significantly lower when we exclude large firms from the sample, risk adjusted returns of
13 the SR portfolio are not significantly different from those of the control sample.
14
15

16
17
18
19
20
21
22
23
24
25
26
27 A second robust finding is the significantly negative impact (both in terms of productivity and
28 return on equity) of exit from the Domini index. This result documents negative consequences
29 arising when a CSR stance is abandoned. Limits of our information do not allow to verify whether
30 the event reveals an exogenous negative shock on firm competitiveness which also leads to
31 exclusion from the Domini or whether the shock depends on reduced productivity of workers or on
32 sanctions imposed by socially responsible consumers.
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

References

- Adriani F. Becchetti L., 2002, Fair trade: a “third generation welfare” mechanism to make globalisation sustainable, in J. Whalley (ed.) CEIS Working Paper, n. 171.
- Anderson J., Frankle A. (1980), “Voluntary Social Report: An Iso-Beta Portfolio Analysis”, *Accounting Review* 55: 468-479
- Aupperle K. E., Carroll A.B., Hatfield J.B. (1985), “An empirical examination of the relationship between corporate social responsibility and profitability”, *Academy of Management Journal* 28: 446-463
- Becchetti A. Caggese, A, 2000, Effects of index option introduction on stock index volatility: a procedure for empirical testing based on SSC-GARCH models, *Applied Financial Economics*, 10(3), June, 323-41
- Boccardelli L. De Santo S., 2004, Social responsibility and reaction to stock market shocks, mimeo
- Bowen, R. M., L. DuCharme and D. Shores: 1995, ‘Stakeholders’ Implicit Claims and Accounting Method choice’, *Journal of Accounting and Economics* 20, 255–295.
- Choi S. and Kim B. J., 1991, Monetary policy regime changes and the risk premium in the foreign exchange markets : A GARCH application, *Economic Letters*, 37, 447-452.
- Cornell B., Shapiro A. (1987), “Corporate Stakeholder Theory and Corporate Finance”, *Financial Management* 16:5-14
- Crain S.J. and Lee J.H., 1996, Volatility in Wheat Spot and Futures Markets, 1950-1993: government Farm Programs, Seasonality, and Causality, *Journal of Finance*, 1996, vol. 51, issue 1, 325-43
- Deci E. (1975), “Intrinsic Motivation”, Plenum Press, New York
- Engle, R. F. (1990) Stock volatility and the crash of '87: discussion, *Review of Financial Studies*, 3(1), 103-6.
- Engle, R. F. and Ng, V. (1993) Measuring and testing the impact of news on volatility, *Journal of Finance*, 48(5) 1749-78.
- Fehr E., Falk A. Psychological Foundations of Incentives, in: *European Economic Review* 46 (2002), 687-724
- Freedman M. and Jaggi B. (1986), “An analysis of the impact of corporate pollution disclosures included in Annual Financials Statements on investors’ decisions”, in *Advances in public interest accounting*
- Freeman R.E. (1984), “Strategic Management”: a Stakeholder approach”, *Pitman*, Boston
- Friedman M. (1962), “Capitalism and Freedom”, *Chicago University Press*
- Galor O. and Moav O. (2004), “From Physical to Human capital accumulation: Inequality and the process of Development”, [Review of Economic Studies](#), Blackwell Publishing, vol. 71(4), pages 1001-1026, 10
- Gerdtham, U. G., Lothgren, M.. 2002, “New Panel Results on Co-integration of International Health Expenditure and GDP.” *Applied Economics*. September, 2002, 1679-1686.
- Ingram, R. and K. Frazier: 1980, ‘Environmental Performance and Corporate Disclosure’, *Journal of Accounting Research* 18, 614–622.
- Jones, T. M.: 1995, ‘Instrumental Stakeholder Theory: A Synthesis of Ethics and Economics’, *Academy of Management Review* (April), 404–437.
- Mandelbrot B. (1963 a) The variation of certain speculative prices, *Journal of Business*, 36, 394-419.
- Mandelbrot B. (1963 b) New methods in statistical economics, *Journal of Political Economy*, 71, 421-440.
- McWilliams A., Siegel D. (2001), “Corporate social responsibility and financial performance: correlation or misspecification?”, *Strategic Management Journal* 21(5): 603-609

- 1
2
3 Nelson, D. B. (1989) Price volatility, international market links, and their implications for regulatory policies:
4 commentary, *Journal of Financial Services Research*, 3(2- 3), 247- 54.
5
6 Pava L., Krausz J. (1996), "The association between corporate social responsibility and financial performance, *Journal*
7 *of Business Ethics* 15: 321-357
8
9 Okunade, A.A., M.C. Karakus (2001) "Unit Root and Cointegration Tests: Timeseries versus Panel Estimates for
10 International Health Expenditure Models." *Applied Economics* 33, 1131-1137.
11
12 Peel, D. A., Peel, M. J., Venetis I. A., 2004, Applied financial Economics, Further Empirical Analysis of The Time
13 Series Properties Of Financial Ratios based on a Panel Data Approach, *Applied Financial Economics*, 14(3), 155-164.
14
15 Preston L., O'Bannon D. (1997), "The corporate social-financial performance relationship", *Business and Society*
16 36(1): 5-31
17
18 Ruf, B. M., Muralidhar K., Brown R. M., Janney J.J. and Paul K. (2001), An Empirical Investigation of the
19 Relationship Between
20 Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective, *Journal of*
21 *Business Ethics* 32, 143-156.
22
23 Simpson W.G. and Kohers T., (2002), The Link Between Corporate Social and Financial Performance: Evidence from
24 the Banking Industry, *Journal of Business Ethics*, 35, 97-109.
25
26 Social investment forum, 2003 Report on Socially Responsible Investing Trends in the United States,
27
28 Soloman R., Hansen K. (1985), "It' s Good Business", *Atheneum*, New York
29
30 Stanwick P.A. and Stanwick S.D. (1998), The Relationship Between Corporate Social Performance, and
31 Organizational Size, Financial Performance, and Environmental Performance: An Empirical Examination, *Journal of*
32 *Business Ethics*, 17, 195-204.
33
34 Taylor D. (1986), *Modelling Financial Time Series*, Wiley and Sons, London
35
36 Tirole J. (2001), "Corporate Governance", *Econometrica*, 69 (1)
37
38 Verschoor, C.C. (1998) A Study of The Link Between as Corporation's Financial Performance and Its Commitment to
39 Ethics, *Journal of Business Ethics*, 17, 1509-1516.
40
41
42 Waddock, S.A. and Graves. S.A. (1997) The Corporate Social Performance-Financial Performance Link", *Strategic*
43 *Management Journal*, 18, 4, 303-319
44
45 Wang Z., Salin V., Hooker N.H. Leatham, D., 2002, Stock Market Reaction to Food Recalls: A GARCH Application,"
46 *Applied Economics Letters*, 9(15) 2002, 979-987
47
48
49 2003 Report on Socially Responsible Investing trends (downloadable at www.socialinvest.org/areas/research/trends).
50
51
52
53
54
55
56
57
58
59
60

Table 1 Distribution for the variables selected for the empirical analysis

Centile	TOTALSALES (millions of \$)	R&D	ROI	ROE	ROCE
1%	6.678	0.055	-31.820	-72.540	-0.022
5%	16.493	0.202	-5.200	-17.230	-0.001
10%	30.917	0.387	1.100	-3.250	0.000
25%	110.821	1.049	5.940	7.980	0.000
50%	274.595	4.279	10.305	15.190	0.001
75%	902.441	24.731	16.640	22.020	0.004
90%	4415.063	120.051	24.580	33.300	0.012
95%	11724.880	592.727	31.690	45.250	0.027
99%	56790.850	3629.195	58.670	129.600	0.169

Legend of variables: *TOTALSALES*: total sales per employee; *R&D*: Research and Development per employee; *ROI*: Return on Investment; *ROE*: Return on Equity; *ROCE*: Return on Capital Employed (where capital employed is Shareholders' equity + Interest bearing liabilities).

Table 2 Descriptive statistics of variables used in the empirical analysis

Overall sample

<i>variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>
Sempredomini					
TSA	2846.29	13785.27	110.820	274.595	902.441
ROI	11.86	14.10	5.965	10.420	16.735
ROE	16.95	130.83	8.400	15.630	22.185
ROCE	0.01	0.05	0.000	0.001	0.004
Domini					
TSA	2592.07	12715.38	123.147	279.125	844.246
ROI	11.54	14.32	5.940	10.305	16.640
ROE	19.10	222.12	7.975	15.190	22.020
ROCE	0.01	0.04	0.000	0.001	0.003
non domini					
TSA	2297.24	13520.69	62.469	212.598	667.719
ROI	10.13	48.02	5.080	8.930	14.310
ROE	13.31	108.01	7.695	15.060	22.305
ROCE	0.00	0.12	0.000	0.001	0.003

Large Capitalization

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>
Sempredomini					
TSA	5624.811	21813.090	167.527	423.489	2635.587
ROI	11.798	15.581	5.720	10.170	17.270
ROE	16.488	212.249	9.440	16.900	23.490
ROCE	0.004	0.028	0.000	0.001	0.003
Domini					
TSA	4916.387	19391.450	192.632	434.342	2403.724
ROI	11.652	16.285	5.710	10.380	17.030
ROE	24.919	372.343	8.640	16.220	22.887
ROCE	0.005	0.031	0.000	0.001	0.003
non domini					
TSA	4463.960	22966.450	185.655	482.402	1405.051
ROI	11.132	32.120	4.960	9.240	15.370
ROE	21.703	71.852	9.365	17.450	24.085
ROCE	0.000	0.096	0.000	0.001	0.003

Small Capitalization

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>
Sempredomini					
TSA	1465.073	8823.862	78.301	179.284	512.615
ROI	10.109	10.814	5.637	9.270	14.325
ROE	17.630	100.865	7.650	13.670	21.140
ROCE	0.005	0.013	0.000	0.002	0.006
Domini					
TSA	1359.96	8446.275	74.395	165.623	497.434
ROI	9.757	11.513	5.460	9.170	14.530
ROE	14.902	82.975	6.210	13.085	20.457
ROCE	0.006	0.020	0.000	0.002	0.006
non domini					
TSA	1665.788	8791.105	25.126	102.111	389.152
ROI	8.577	25.349	5.167	9.055	13.807
ROE	5.810	167.809	8.960	14.990	22.320
ROCE	0.008	0.035	0.000	0.001	0.004

Table 2 Descriptive statistics of variables used in the empirical analysis (follows)

R&D investing

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>
Sempredomini					
TSA	2844.207	10047.78	115.897	248.716	625.120
ROI	11.962	11.891	5.800	10.245	17.430
ROE	24.233	164.789	10.645	17.440	23.240
ROCE	0.006	0.032	0.000	0.001	0.003
domini					
TSA	2553.322	9828.378	140.868	261.149	680.591
ROI	11.749	14.340	5.970	11.245	17.670
ROE	34.378	420.077	9.800	17.240	23.465
ROCE	0.006	0.033	0.000	0.001	0.003
non domini					
TSA	2345.778	12258.470	118.202	239.923	541.198
ROI	11.658	73.108	5.340	9.170	14.675
ROE	11.075	74.726	8.485	15.530	24.435
ROCE	-0.006	0.166	-0.001	0.001	0.004
Non R&D investing					
<i>variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>
sempredomini					
TSA	2846.977	14807.780	109.511	293.513	1001.300
ROI	11.822	14.731	6.020	10.480	16.550
ROE	14.769	118.764	8.060	14.985	21.935
ROCE	0.008	0.049	0.000	0.001	0.005
domini					
TSA	2604.943	13540.090	116.210	294.169	927.001
ROI	11.463	14.316	5.890	9.990	16.392
ROE	14.393	100.644	7.610	14.650	21.455
ROCE	0.008	0.043	0.000	0.001	0.005
non domini					
TSA	2277.920	13993.800	44.423	202.749	719.731
ROI	9.553	34.084	5.065	8.790	14.185
ROE	14.055	117.025	7.440	14.890	21.710
ROCE	0.007	0.093	0.000	0.001	0.004

Legend of the dependent variables: *TOTALSALES*: total sales per employee; *R&D*: Research and Development per employee; *ROI*: Return on Investment; *ROE*: Return on Equity; *ROCE*: Return on Capital Employed.

SEMPREDOMINI: observations relative to firms being part of the Domini index throughout all the sample period; *NONDOMINI*: observations when sample firms are not part of the Domini index; *DOMINI*: observations when sample firms are part of the Domini index.

Table 3.1. Panel Unit Root Test

Fisher t-test: the null hypothesis is that all series are non stationary against the homogeneous alternative (all series are stationary) and the heterogeneous alternative (some series are stationary and some others are not).

IPS: Im, Pesaran and Shin (2003). The null hypothesis of the test is that all series are non stationary ($H_0: \rho_i=1$) against the alternative heterogeneous hypothesis ($H_1: \rho_i < 1$ for each $i=1, \dots, N_1$ and $\rho_i = 1$ for each $i=N_1+1, \dots, N$ for some N_1)

		Size	Net sales per worker	Net cash flow per worker	ROI	ROE	ROCE
Fisher t-test	<i>p-value</i>	0.001	0.001	0.001	0.001	0.001	0.001
	<i>t-bar</i>	-0.774	-1.631	-3.312	-2.112	-2.691	-2.331
IPS test	<i>Critical Value 10%</i>	-1.64	-1.64	-1.64	-1.64	-1.64	-1.64
	<i>Critical Value 5%</i>	-1.67	-1.67	-1.67	-1.67	-1.67	-1.67
	<i>Critical Value 1%</i>	-1.73	-1.73	-1.73	-1.73	-1.73	-1.73
	<i>W-bar</i>	17.286	-2.584	-24.924	-35.23	-32.23	-41.14
	<i>p-value</i>	1.000	0.005	0.000	0.000	0.000	0.000

Table 3.2 Panel Cointegration Test by Nyblom and Harvey (2000)

The null hypothesis of the test is no cointegration ($H_0: \text{rang}(\text{var-cov})=K=0$) against the alternative hypothesis of cointegration ($H_1: \text{rango}(\text{var-cov})=K \neq 0$).

NH-t: the test is performed under the hypothesis of iid errors. Nh adj-T: errors are allowed to be serially correlated, and the test is performed using an estimate of the long-run variance derived from the spectral density matrix at frequency zero.

		Size	Net sales per worker	Net cash flow per worker	ROI	ROE	ROCE
Fixed effects	<i>NH-t</i>	7.4667	8.412	7.153	9.152	8.195	9.003
	<i>NH adj-t</i>	44.800	41.230	38.450	47.250	41.330	41.360
	<i>Critical Value 10%</i>	18.36	18.36	18.36	18.36	18.36	18.36
	<i>Critical Value 5%</i>	19.01	19.01	19.01	19.01	19.01	19.01
	<i>Critical Value 1%</i>	20.25	20.25	20.25	20.25	20.25	20.25
	<i>N</i>	N>100	N>100	N>100	N>100	N>100	N>100

Table 4.1 The impact of Domini affiliation on performance indicators

Var\Dep.	Tot Sales	ROI	ROE	ROCE
Domini	0.129 (4.98)	-0.096 (-2.46)	-0.064 (-1.50)	-0.096 (-2.63)
Entry	0.017 (0.41)	0.039 (0.65)	0.047 (0.69)	0.074 (1.26)
log(Postexit)	-0.231 (-4.53)	-0.211 (-2.59)	-0.233 (-2.83)	-0.234 (-3.26)
Military	0.453 (2.67)	-0.026 (-0.11)	-0.064 (-0.21)	0.128 (0.55)
Environment	0.123 (0.88)	0.140 (0.69)	0.242 (1.10)	0.245 (1.27)
Product quality	0.246 (1.85)	-0.046 (-0.23)	-0.306 (-1.46)	-0.242 (-1.37)
Badgov.ce	-0.036 (-0.26)	0.134 (0.69)	-0.054 (-0.27)	0.119 (0.69)
Badlabour	0.152 (1.24)	0.332 (1.85)	0.400 (1.90)	0.407 (2.30)
Log(Size)	-0.705 (-78.80)	-0.048 (-3.67)	-0.074 (-4.95)	-0.029 (-2.27)
Constant	10.903 (140.01)	2.665 (7.72)	3.466 (26.58)	2.735 (25.07)
R² within	0.428	0.032	0.021	0.033
R² between	0.402	0.001	0.001	0.000
R² overall	0.393	0.007	0.002	0.010
Joint insignificance of the fixed effects †	95.13	6.70	5.21	6.90
P-value	(0.000)	(0.000)	(0.000)	(0.000)
Number of obs.	11986	9792	10357	10472
Average fixed effects				
Domini sample	0.070*	0.030*	0.007	0.030*
Non domini sample	-0.184*	-0.084*	-0.019	-0.081*
Average fixed effects net of industry and size				
Domini sample	0.034*	0.025*	0.007	0.024*
Non domini sample	-0.089*	-0.070*	-0.018	-0.065*

Legend of the dependent variables: *Totsales*: total sales per worker; *R&D*: Research and Development per worker; *Roi* return on investment; *Roe* Return on Equity, *Roce*: Return on Capital Employed.

Legend of the regressors: *Domini*: dummy for affiliation in the Domini 400 index; *Entry*: dummy for entry into the Domini 400 index; *Postexit*: number of years after exit from the Domini 400 index; *Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*: dummies taking value of one the year of exit when the exit rationale (*Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*) applies, *Size*. Number of firm employees. Coefficients and t-stats of year dummies are omitted for reasons of space and available upon request.

* Subgroup means are significantly different at 95 percent.

† F-test. Null hypothesis that all $u_i=0$.

Table 4.2 The impact of Domini affiliation on performance indicators (large capitalisation firms excluded from the sample)

Var\Dep.	Tot Sales	ROI	ROE	ROCE
Domini	0.050 (1.45)	-0.172 (-3.33)	-0.156 (-2.83)	-0.119 (-2.53)
Entry	0.061 (1.11)	0.170 (2.15)	0.081 (0.95)	0.137 (1.86)
log(Postexit)	-0.147 (-1.58)	-0.596 (-3.46)	-0.164 (-1.17)	-0.617 (-4.38)
Military	0.628 (2.84)	-0.227 (-0.77)	-0.391 (-1.18)	-0.212 (-0.73)
Environment	0.009 (0.05)	0.205 (0.88)	0.181 (0.75)	0.426 (2.00)
Product quality	0.185 (0.98)	-0.052 (-0.17)	-0.592 (-2.10)	-0.315 (-1.28)
Badgov.ce	-0.121 (-0.83)	0.070 (0.34)	-0.125 (-0.59)	0.109 (0.60)
Badlabour	-0.367 (-0.67)	.	-0.345 (-0.44)	.
Log(Size)	-0.734 (-66.90)	-0.056 (-3.58)	-0.080 (-4.42)	-0.034 (-2.27)
Constant	10.743 (113.26)	2.910 (21.67)	3.530 (22.79)	2.739 (21.07)
R² within	0.435	0.035	0.024	0.036
R² between	0.483	0.000	0.000	0.002
R² overall	0.478	0.007	0.004	0.011
Joint insignificance of the fixed effects †	60.10	6.31	4.82	6.56
P-value	(0.000)	(0.000)	(0.000)	(0.000)
Number of obs.	8361	6862	7345	7334
Average fixed effects				
Domini sample	0.044*	0.043*	0.019*	0.038*
Non domini sample	-0.105*	-0.109*	-0.045*	-0.092*
Average fixed effects net of industry and size				
Domini sample	-0.024*	0.032*	0.016*	0.026*
Non domini sample	0.057*	-0.079*	-0.039*	-0.063*

Legend of the dependent variables: *Totsales*: total sales per worker; *R&D*: Research and Development per worker; *Roi* return on investment; *Roe* Return on Equity, *Roce*: Return on Capital Employed.

Legend of the regressors: *Domini*: dummy for affiliation in the Domini 400 index; *Entry*: dummy for entry into the Domini 400 index; *Postexit*: number of years after exit from the Domini 400 index; *Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*: dummies taking value of one the year of exit when the exit rationale (*Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*) applies, *Size*. Number of firm employees. Coefficients and t-stats of year dummies are omitted for reasons of space and available upon request.

* Subgroup means are significantly different at 95 percent.

† F-test. Null hypothesis that all $u_i=0$.

Table 4.3 The impact of Domini affiliation on performance indicators (non R&D investing firms)

Var\Dep.	Tot Sales	ROI	ROE	ROCE
Domini	0.158 (5.11)	-0.150 (-3.05)	-0.085 (-1.63)	-0.148 (-3.34)
Entry	-0.015 (-0.31)	0.048 (0.64)	0.053 (0.64)	0.164 (2.35)
log(Postexit)	-0.017 (-0.20)	-0.331 (-1.92)	0.0001 (1.21)	-0.219 (-1.91)
Military	0.542 (2.42)	0.298 (0.77)	-0.196 (-0.47)	0.043 (0.13)
Environment	-0.362 (-1.53)	-0.023 (-0.06)	0.362 (0.97)	-0.065 (-0.20)
Product quality	-0.168 (-0.99)	0.055 (0.21)	-0.372 (-1.43)	-0.354 (-1.57)
Badgov.ce	0.112 (0.73)	0.180 (0.79)	-0.020 (-0.09)	0.138 (0.69)
Badlabour	0.263 (1.39)	0.623 (2.05)	0.451 (1.54)	0.547 (1.92)
Log(Size)	-0.789 (-70.20)	-0.028 (-1.64)	-0.067 (-3.61)	-0.014 (-0.89)
Constant	11.517 (118.66)	2.723 (18.61)	3.391 (21.19)	2.675 (19.43)
R² within	0.462	0.032	0.020	0.035
R² between	0.408	0.003	0.000	0.001
R² overall	0.426	0.011	0.002	0.012
Joint insignificance of the fixed effects †	69.11	6.13	3.96	5.37
P-value	(0.000)	(0.000)	(0.000)	(0.000)
Number of obs.	8287	6563	7267	7307
Average fixed effects				
Domini sample	0.055*	0.045*	0.010	0.045*
Non domini sample	-0.138*	-0.119*	-0.025	-0.113*
Average fixed effects net of industry and size				
Domini sample	0.014	0.043*	0.012*	0.041*
Non domini sample	-0.036	-0.114*	-0.031*	-0.104*

Legend of the dependent variables: *Totsales*: total sales per worker; *R&D*: Research and Development per worker; *Roi* return on investment; *Roe* Return on Equity, *Roce*: Return on Capital Employed.

Legend of the regressors: *Domini*: dummy for affiliation in the Domini 400 index; *Entry*: dummy for entry into the Domini 400 index; *Postexit*: number of years after exit from the Domini 400 index; *Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*: dummies taking value of one the year of exit when the exit rationale (*Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*) applies, *Size*. Number of firm employees. Coefficients and t-stats of year dummies are omitted for reasons of space and available upon request.

* Subgroup means are significantly different at 95 percent.

† F-test. Null hypothesis that all $u_i=0$.

Table 4.4 The impact of Domini affiliation on performance indicators (non R&D investing firms -large capitalisation firms are excluded from the sample)

Var\Dep.	Tot Sales	ROI	ROE	ROCE
Domini	0.090 (2.32)	-0.202 (-3.37)	-0.177 (-2.76)	-0.146 (-2.71)
Entry	0.020 (0.34)	0.193 (2.12)	0.075 (0.77)	0.182 (2.19)
log(Postexit)	0.035 (0.28)	-0.405 (-1.75)	0.163 (0.78)	-0.532 (-3.25)
Military	0.689 (2.49)	0.290 (0.75)	-0.246 (-0.58)	-0.166 (-0.45)
Environment	-0.548 (-1.92)	-0.124 (-0.25)	0.208 (0.48)	0.059 (0.16)
Product quality	-0.351 (-1.61)	-0.047 (-0.14)	-0.554 (-1.70)	-0.445 (-1.59)
Badgov.ce	0.051 (0.32)	0.115 (0.48)	-0.111 (-0.45)	0.161 (0.77)
Log(Size)	-0.786 (-57.58)	-0.057 (-2.78)	-0.067 (-3.01)	-0.030 (-1.57)
Constant	11.090 (94.40)	2.966 (17.05)	3.212 (16.55)	2.600 (15.61)
R² within	0.455	0.037	0.023	0.040
R² between	0.500	0.005	0.001	0.003
R² overall	0.505	0.011	0.006	0.015
Joint insignificance of the fixed effects †	45.92	5.93	3.84	5.29
P-value	(0.000)	(0.000)	(0.000)	(0.000)
Number of obs.	5975	4792	5308	5312
Average fixed effects				
Domini sample	0.029	0.054*	0.022*	0.050*
Non domini sample	-0.068	-0.129*	-0.051*	-0.115*
Average fixed effects net of industry and size				
Domini sample	-0.039*	0.044*	0.020*	0.039*
Non domini sample	0.090*	-0.107*	-0.045*	-0.090*

Legend of the dependent variables: *Totsales*: total sales per worker; *R&D*: Research and Development per worker; *Roi* return on investment; *Roe* Return on Equity, *Roce*: Return on Capital Employed.

Legend of the regressors: *Domini*: dummy for affiliation in the Domini 400 index; *Entry*: dummy for entry into the Domini 400 index; *Postexit*: number of years after exit from the Domini 400 index; *Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*: dummies taking value of one the year of exit when the exit rationale (*Military*, *Environment*, *Productquality*, *Badgov.nce* and *Badlabour*) applies, *Size*. Number of firm employees. Coefficients and t-stats of year dummies are omitted for reasons of space and available upon request.

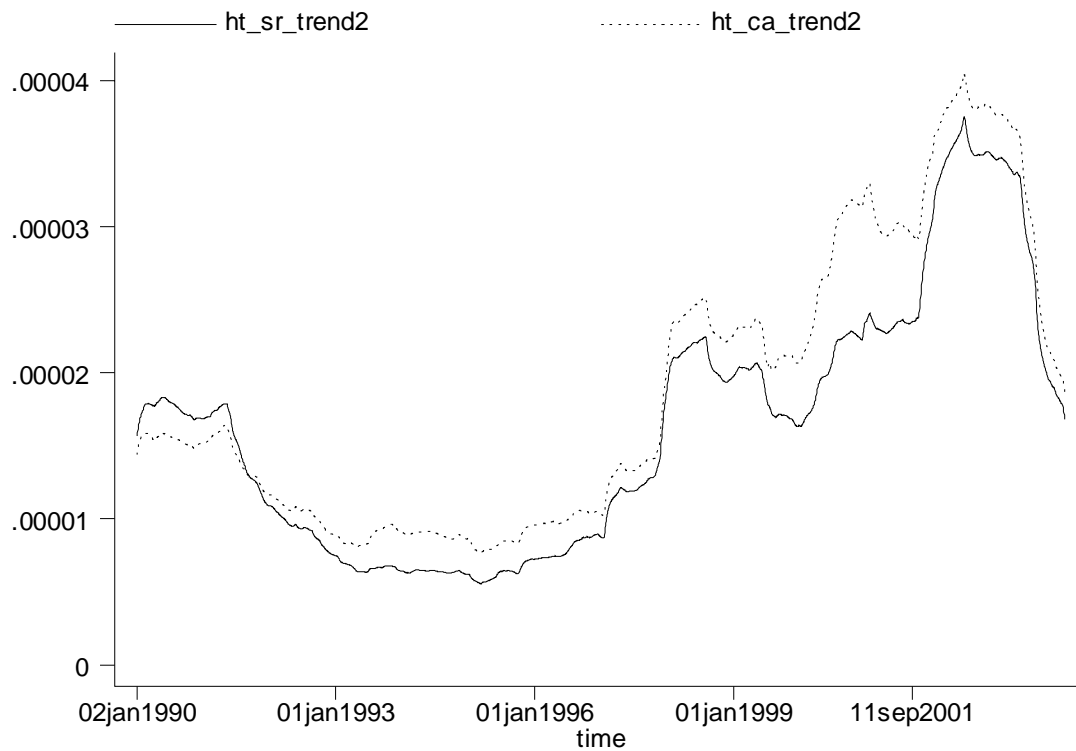
* Subgroup means are significantly different at 95 percent.

† F-test. Null hypothesis that all $u_i=0$.

Table 5. GARCH (1,1) estimated conditional volatility for SR firms and the control sample

MEAN RETURN EQUATION			
DEPENDENT VARIABLE: R_t			
VARIABLES	DOMINI INDEX CONSTITUENTS	VARIABLES	CONTROL GROUP
Rt-1	0.1283** [7.4931]	Rt-1	0.1250** [7.0795]
DJUN	-7.75E-05 [-0.4258]	DJUN	-0.0002 [-0.8587]
DMONDAY	-0.0002 [-1.2607]	DMONDAY	-0.0004** [-2.3157]
DTHURSDAY	-0.0002 [-1.3785]	DTHURSDAY	-0.0003* [-1.6532]
DWEDNESDAY	7.80E-05 [0.4824]	DWEDNESDAY	0.0002 [1.0250]
DFRIDAY	-4.60E-05 [0.3026]	DFRIDAY	-4.35E-05 [-0.2566]
constant	0.0003** [2.9580]	constant	0.0004** [3.4081]
VARIANCE EQUATION			
DEPENDENT VARIABLE: h_t			
VARIABLES	DOMINI INDEX CONSTITUENTS	VARIABLES	CONTROL GROUP
ε_{t-1}^2 -SR	0.0883** [5.9167]	ε_{t-1}^2 -CA	0.0864** [13.699]
h_{t-1} -SR	0.9026** [147.909]	h_{t-1} -CA	0.8979** [126.947]
Constant-SR	1.84E-07** [5.9168]	Constant-CA	2.97E-07** [7.2819]
Wald χ^2	10352.3	Wald χ^2	9904.3
Obs	3651	Obs	3651

Legend of the variables: h_t : conditional variance estimated in the GARCH (1,1) model; ε_{t-1}^2 : lagged square residual of the mean equation. T-stats are in square brackets. ** 95 percent significance, * 90 percent significance.

Figure 1 Conditional variance (SR firms vs control sample)

Legend: ht_sr_trend2: conditional variance of Domini constituents index stock returns ; ht_ca_trend2: conditional variance of control group index stock returns.

Table 6 The impact of the speculative bubble burst on stock volatility in a GARCH model (the event date is March 10, 2000)

DEPENDENT VARIABLE: R_T		
VARIABLES	Domini index	Control sample
R_{t-1}	0.1315**	0.1281**
	[7.3757]	[7.0439]
DJanuary	-5.89E-05	-0.0001
	[-0.3212]	[-0.7688]
DMonday	-0.0001	-0.0003**
	[-1.1273]	[-2.1652]
DThursday	-0.0001	-0.0002*
	[-1.3059]	[-1.6288]
DWednesday	9.50E-05	0.0002
	[0.5886]	[1.1074]
DFriday	-3.67E-05	-3.41E-05
	[-0.2425]	[-0.2019]
Constant	0.0003**	0.0004**
	[2.7696]	[3.2301]
DEPENDENT VARIABLE: h_t		
VARIABLES	Domini index	Control sample
\mathcal{E}_{t-1}^2	0.0914**	0.0926**
	[14.0605]	[12.7800]
h_{t-1}	0.8870**	0.8678**
	[106.9555]	[75.5598]
DBUBBLE	4.16E-07**	8.31E-07**
	[4.9226]	[5.0562]
Constant	2.55E-07**	4.90E-07**
	[6.0761]	[6.9037]
Wald χ^2	9342.3	9432.21
F-test on the significance in the difference of DBUBBLE coefficient in the SR and non SR sample (p-value)	(.01)	(.01)
Obs	3651	3651

Legend of the variables: h_t : conditional variance estimated in the GARCH (1,1) model; \mathcal{E}_{t-1}^2 : lagged square residual of the mean equation. *DBUBBLE*: dummy which takes the value of 1 after the March 10 2000 and zero otherwise. .T-stats are in square brackets. ** 95 percent significance, * 90 percent significance.

Appendix 1

Criteria of KLD social ratings

SOCIAL ISSUE RATINGS

COMMUNITY

STRENGTHS *Charitable Giving.* The company has consistently given over 1.5% of trailing three-year net earnings before taxes (NEBT) to charity, or has otherwise been notably generous in its giving. *Innovative Giving.* The company has a notably innovative giving program that supports nonprofit organizations, particularly those promoting self-sufficiency among the economically disadvantaged. Companies that permit nontraditional federated charitable giving drives in the workplace are often noted in this section as well. *Non-US Charitable Giving.* The company has made a substantial effort to make charitable contributions abroad, as well as in the U.S. To qualify, a company must make at least 20% of its giving, or have taken notably innovative initiatives in its giving program, outside the U.S. *Support for Housing.* The company is a prominent participant in public/private partnerships that support housing initiatives for the economically disadvantaged, e.g., the National Equity Fund or the Enterprise Foundation. *Support for Education.* The company has either been notably innovative in its support for primary or secondary school education, particularly for those programs that benefit the economically disadvantaged, or the company has prominently supported job-training programs for youth. *Other Strength.* The company has either an exceptionally strong volunteer program, in-kind giving program, or engages in other notably positive community activities.

CONCERNS *Investment Controversies.* The company is a financial institution whose lending or investment practices have led to controversies, particularly ones related to the Community Reinvestment Act. *Negative Economic Impact.* The company's actions have resulted in major controversies concerning its economic impact on the community. These controversies can include issues related to environmental contamination, water rights disputes, plant closings, "put-or-pay" contracts with trash incinerators, or other company actions that adversely affect the quality of life, tax base, or property values in the community. *Other Concern.* The company is involved with a controversy that has mobilized community opposition, or is engaged in other noteworthy community controversies.

CORPORATE GOVERNANCE

STRENGTHS *Limited Compensation.* The company has recently awarded notably low levels of compensation to its top management or its board members. The limit for a rating is total compensation of less than \$500,000 per year for a CEO or \$30,000 per year for outside directors. *Ownership Strength.* The company owns between 20% and 50% of another company KLD has cited as having an area of social strength, or is more than 20% owned by a firm that KLD has rated as having social strengths. When a company owns more than 50% of another firm, it has a controlling interest, and KLD treats the second firm as if it is a division of the first.

Other Strength. The company has an innovative compensation plan for its board or executives, a unique and positive corporate culture, or some other initiative not covered by other KLD ratings.

CONCERNS *High Compensation.* The company has recently awarded notably high levels of compensation to its top management or its board members. The limit for a rating is total compensation of more than \$10 million per year for a CEO or \$100,000 per year for outside directors. *Tax Disputes.* The company has recently been involved in major tax disputes involving more than \$100 million with the Federal, state, or local authorities. *Ownership Concern.* The company owns between 20% and 50% of a company KLD has cited as having an area of social concern, or is more than 20% owned by a firm KLD has rated as having areas of concern. When a company owns more than 50% of another firm, it has a controlling interest, and KLD treats the second firm as if it is a division of the first. *Other Concern.* The company restated its earnings over an accounting controversy, has other accounting problems, or is involved with some other controversy not covered by other KLD ratings.

DIVERSITY

STRENGTHS CEO. The company's chief executive officer is a woman or a member of a minority group. ***Promotion.*** The company has made notable progress in the promotion of women and minorities, particularly to line positions with profit-and-loss responsibilities in the corporation. ***Board of Directors.*** Women, minorities, and/or the disabled hold four seats or more (with no double counting) on the board of directors, or one-third or more of the board seats if the board numbers less than 12. ***Work/Life Benefits.*** The company has outstanding employee benefits or other programs addressing work/life concerns, *e.g.*, childcare, elder care, or flextime. ***Women & Minority Contracting.*** The company does at least 5% of its subcontracting, or otherwise has a demonstrably strong record on purchasing or contracting, with women- and/or minority-owned businesses. ***Employment of the Disabled.*** The company has implemented innovative hiring programs, other innovative human resource programs for the disabled, or otherwise has a superior reputation as an employer of the disabled. ***Gay & Lesbian Policies.*** The company has implemented notably progressive policies toward its gay and lesbian employees. In particular, it provides benefits to the domestic partners of its employees. ***Other Strength.*** The company has made a notable commitment to diversity that is not covered by other KLD ratings.

CONCERNS Controversies. The company has either paid substantial fines or civil penalties as a result of affirmative action controversies, or has otherwise been involved in major controversies related to affirmative action issues. ***Non-Representation.*** The company has no women on its board of directors or among its senior line managers. ***Other Concern.*** The company is involved in diversity controversies not covered by other KLD ratings.

EMPLOYEE RELATIONS

STRENGTHS Cash Profit Sharing. The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce. ***Employee Involvement.*** The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees, gain sharing, stock ownership, sharing of financial information, or participation in management decision-making. ***Health and Safety Strength.*** The company is noted by the US Occupational Health and Safety Administration for its safety programs. ***Retirement Benefits Strength.*** The company has a notably strong retirement benefits program. ***Union Relations.*** The company has a history of notably strong union relations. ***Other Strength.*** The company has strong employee relations initiatives not covered by other KLD ratings.

CONCERNS Union Relations. The company has a history of notably poor union relations. ***Health and Safety Concern.*** The company recently has either paid substantial fines or civil penalties for willful violations of employee health and safety standards, or has been otherwise involved in major health and safety controversies. ***Workforce Reductions.*** The company has reduced its workforce by 15% in the most recent year or by 25% during the past two years, or it has announced plans for such reductions. ***Retirement Benefits Concern.*** The company has either a substantially underfunded defined benefit pension plan, or an inadequate retirement benefits program. ***Other Concern.*** The company is involved in an employee relations controversy that is not covered by other KLD ratings.

ENVIRONMENT

STRENGTHS Beneficial Products and Services. The company derives substantial revenues from innovative remediation products, environmental services, or products that promote the efficient use of energy [costa], or it has developed innovative products with environmental benefits. (The term “environmental service” does not include services with questionable environmental effects, such as landfills, incinerators, waste-to-energy plants, and deep injection wells.) ***Clean Energy.*** The company has taken significant measures to reduce its impact on climate change and air pollution through use of renewable energy and clean fuels or through energy efficiency. The company has demonstrated a commitment to promoting climate-friendly policies and practices outside its own operations. ***Communications.*** The company is a signatory to the CERES Principles, publishes a notably substantive environmental report, or has notably effective internal communications systems in place for environmental best practices. ***Pollution Prevention.*** The company has notably strong pollution prevention programs including both emissions reductions and toxic-use reduction programs. ***Recycling.*** The company either is a substantial user of recycled materials as raw materials in its

manufacturing processes, or a major factor in the recycling industry. **Other Strength.** The company has demonstrated a superior commitment to management systems, voluntary programs, or other environmentally proactive activities.

CONCERNS Hazardous Waste. The company's liabilities for hazardous waste sites exceed \$50 million [vantaggio per le SR], or the company has recently paid substantial fines or civil penalties for waste management violations. **Regulatory Problems.** The company has recently paid substantial fines or civil penalties for violations of air, water, or other environmental regulations, or it has a pattern of regulatory controversies under the Clean Air Act, Clean Water Act or other major environmental regulations. **Ozone Depleting Chemicals.** The company is among the top manufacturers of ozone depleting chemicals such as HCFCs, methyl chloroform, methylene chloride, or bromines. **Substantial Emissions.** The company's legal emissions of toxic chemicals (as defined by and reported to the EPA) from individual plants into the air and water are among the highest of the companies followed by KLD.

Agricultural Chemicals. The company is a substantial producer of agricultural chemicals, *i.e.*, pesticides or chemical fertilizers. **Climate Change.** The company derives substantial revenues from the sale of coal or oil and its derivative fuel products, or the company derives substantial revenues indirectly from the combustion of coal or oil and its derivative fuel products. Such companies include electric utilities, transportation companies with fleets of vehicles, auto and truck manufacturers, and other transportation equipment companies. **Other Concern.** The company has been involved in an environmental controversy that is not covered by other KLD ratings.

HUMAN RIGHTS

STRENGTHS Indigenous Peoples Relations Strength. The company has established relations with indigenous peoples near its proposed or current operations (either in or outside the U.S.) that respect the sovereignty, land, culture, human rights, and intellectual property of the indigenous peoples. **Labor Rights Strength.** The company has outstanding transparency on overseas sourcing disclosure and monitoring, or has particularly good union relations outside the U.S. **Other Strength.** The company has undertaken exceptional human rights initiatives, including outstanding transparency or disclosure on human rights issues, or has otherwise shown industry leadership on human rights issues not covered by other KLD human rights ratings.

CONCERNS Burma Concern. The company has operations or investment in, or sourcing from, Burma. **Labor Rights Concern.** The company's operations outside the U.S. have had major recent controversies related to employee relations and labor standards or its U.S. operations have had major recent controversies involving sweatshop conditions or child labor. **Indigenous Peoples Relations Concern.** The company has been involved in serious controversies with indigenous peoples (either in or outside the U.S.) that indicate the company has not respected the sovereignty, land, culture, human rights, and intellectual property of indigenous peoples. **Other Concern.** The company's operations outside the U.S. have been the subject of major recent human rights controversies not covered by other KLD ratings.

PRODUCT

STRENGTHS Quality. The company has a long-term, well-developed, company-wide quality program, or it has a quality program recognized as exceptional in U.S. industry. **R&D/Innovation.** The company is a leader in its industry for research and development (R&D), particularly by bringing notably innovative products to market. **Benefits to Economically Disadvantaged.** The company has as part of its basic mission the provision of products or services for the economically disadvantaged.

Other Strength. The company's products have notable social benefits that are highly unusual or unique for its industry.

CONCERNS Product Safety. The company has recently paid substantial fines or civil penalties, or is involved in major recent controversies or regulatory actions, relating to the safety of its products and services. **Marketing/Contracting Controversy.** The company has recently been involved in major marketing or contracting controversies, or has paid substantial fines or civil penalties relating to advertising practices, consumer fraud, or government contracting. **Antitrust.** The company has recently paid substantial fines or civil penalties for antitrust violations such as price fixing, collusion, or predatory pricing, or is involved in recent major controversies or regulatory actions relating to antitrust allegations. **Other Concern.** The

1
2
3 company has major controversies with its franchises, is an electric utility with nuclear safety problems,
4 defective product issues, or is involved in other product-related controversies not covered by other KLD
5 ratings.
6

7 8 **CONTROVERSIAL BUSINESS ISSUES**

9 10 **ADULT ENTERTAINMENT**

11 **Distributors.** The report includes publicly traded U.S. companies that derive 15% or more of total revenues
12 from the *rental, sale, or distribution* (wholesale or retail) of adult entertainment media products. **Owners**
13 **and Operators.** The report includes publicly traded U.S. companies that own and/or operate adult
14 entertainment establishment. **Producers.** The report includes publicly traded U.S. companies that produce
15 adult media products including movies, magazines, books, calendars, and websites. **Providers.** The report
16 includes publicly traded U.S. companies that offer pay-per-view adult entertainment. **Ownership of an Adult**
17 **Entertainment Company.** The company owns more than 20% of another company with adult entertainment
18 involvement. (When a company owns more than 50% of company with adult entertainment involvement,
19 KLD treats the adult entertainment company as a consolidated subsidiary.) **Ownership by an Adult**
20 **Entertainment Company.** The company is more than 50% owned by a company with adult entertainment
21 involvement.
22
23

24 25 **ALCOHOL**

26 **Licensing.** The company licenses its company or brand name to alcohol products. **Manufacturers.**
27 Companies that are involved in the manufacture alcoholic beverages including beer, distilled spirits, or wine.
28 **Manufacturers of Products Necessary for Production of Alcoholic Beverages.** Companies that derive 15%
29 or more of total revenues from the supply of raw materials and other products necessary for the production of
30 alcoholic beverages. **Retailers.** Companies that derive 15% or more of total revenues from the distribution
31 (wholesale or retail) of alcoholic beverages. **Ownership of an Alcohol Company.** The company owns more
32 than 20% of another company with alcohol involvement. (When a company owns more than 50% of
33 company with alcohol involvement, KLD treats the alcohol company as a consolidated subsidiary.)
34 **Ownership by an Alcohol Company.** The company is more than 50% owned by a company with alcohol
35 involvement.
36

37 38 **FIREARMS**

39 **Manufacturers.** The company is engaged in the production of small arms ammunition or firearms, including,
40 pistols, revolvers, rifles, shotguns, or sub-machine guns. **Retailers.** The company derives 15% or more of
41 total revenues from the distribution (wholesale or retail) of firearms and small arms ammunition. **Ownership**
42 **of a Firearms Company.** The company owns more than 20% of another company with firearms
43 involvement. (When a company owns more than 50% of company with firearms involvement, KLD treats
44 the firearms company as a consolidated subsidiary.) **Ownership by a Firearms Company.** The company is
45 more than 50% owned by a company with firearms involvement.
46

47 48 **GAMBLING**

49 **Licensing.** The company licenses its company or brand name to gambling products. **Manufacturers.**
50 Companies that produce goods used exclusively for gambling, such as slot machines, roulette wheels, or
51 lottery terminals. **Owners and Operators.** Companies that own and/or operate casinos, racetracks, bingo
52 parlors, or other betting establishments, including casinos; horse, dog, or other race tracks that permit
53 wagering; lottery operations; on-line gambling; pari-mutuel wagering facilities; bingo; Jai-alai; and other
54 sporting events that permit wagering. **Supporting Products or Services.** Companies that provide services in
55 casinos that are fundamental to gambling operations, such as credit lines, consulting services, or gambling
56 technology and technology support. **Ownership of a Gambling Company.** The company owns more than
57 20% of another company with gambling involvement. (When a company owns more than 50% of company
58 with gambling involvement, KLD treats the gambling company as a consolidated subsidiary.) **Ownership by**
59 **a Gambling Company.** The company is more than 50% owned by a company with gambling involvement.
60

MILITARY

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Manufacturers of Weapons or Weapons Systems. Companies that derive more than 2% of revenues from the sale of conventional weapons or weapons systems, or earned \$50 million or more from the sale of conventional weapons or weapons systems, or earned \$10 million or more from the sale of nuclear weapons or weapons systems. **Manufacturers of Components for Weapons or Weapons Systems.** Companies that derive more than 2% of revenues from the sale of customized components for conventional weapons or weapons systems, or earned \$50 million or more from the sale of customized components for conventional weapons or weapons systems, or earned \$10 million or more from the sale of customized components for nuclear weapons or weapons systems. **Ownership of a Military Company.** The company owns more than 20% of another company with military involvement. (When a company owns more than 50% of company with military involvement, KLD treats the military company as a consolidated subsidiary.) **Ownership by a Military Company.** The company is more than 50% owned by a company with military involvement.

17 18 19 20 21 22 23 24 **NUCLEAR POWER**

Ownership of Nuclear Power Plants. Companies that own nuclear power plants. **Ownership of a Nuclear Power Company.** The company owns more than 20% of another company with nuclear power involvement. (When a company owns more than 50% of company with nuclear power involvement, KLD treats the nuclear power company as a consolidated subsidiary.) **Ownership by a Nuclear Power Company.** The company is more than 50% owned by a company with nuclear power involvement.

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 **TOBACCO**

Licensing. The company licenses its company name or brand name to tobacco products. **Manufacturers.** The company produces tobacco products, including cigarettes, cigars, pipe tobacco, and smokeless tobacco products. **Manufacturers of Products Necessary for Production of Tobacco Products.** The company derives 15% or more of total revenues from the production and supply of raw materials and other products necessary for the production of tobacco products. **Retailers.** The company derives 15% or more of total revenues from the distribution (wholesale or retail) of tobacco products. **Ownership of a Tobacco Company.** The company owns more than 20% of another company with tobacco involvement. (When a company owns more than 50% of company with tobacco involvement, KLD treats the tobacco company as a consolidated subsidiary.) **Ownership by a Tobacco Company.** The company is more than 50% owned by a company with tobacco involvement.

Maintenance of the Domini 400 Socialsm Index (DS 400 Index)

Through its DS 400 Index Committee (the Committee), KLD maintains the Index at 400 companies at all times. The Committee makes all decisions about additions and removals for the DS 400, adding a company to the index at the same time that another company is removed. The Committee also creates, reviews, and maintains the Working Guidelines, publishes additional background materials, and responds to public inquiries about the maintenance of the DS 400. The Committee meets at least once a month, but may meet more frequently as needed.

Companies may be removed from the DS 400 Index at any time for one of four reasons: Corporate Actions; Failure of Exclusionary Screens¹²; Failure of Qualitative Screens; or Lack of Social and Financial Representation. In cases of corporate actions or failure of an exclusionary screen, a company is removed at the time the action occurs or when the company is added to one of KLD's exclusionary reports. In cases of qualitative screen failure or lack of social and financial representation, the removal generally occurs immediately after the monthly Committee meeting when the decision to remove the company is made.

The Committee maintains a ranked list of companies for addition to the DS 400 Index. The Committee seeks out companies for addition to the Index that fall into at least one of the following three categories: companies with particularly strong social stories; companies that enable the DS 400 Index to approximate the industry diversification and market capitalization of the S&P 500; and/or companies that allow the Committee to maintain the DS 400 Index with approximately 250 S&P companies, 100 Non-S&P companies for sector diversification and market capitalization, and 50 Non-S&P companies with exceptional social stories.

¹² Exclusionary screens include Military-Weapons, Alcohol, Tobacco, Firearms, Nuclear Power, and Gambling.

List of firms which are always in the Domini index in the estimation period

ADVDMICRO DEVC, AIR PRDS& CHEMS, ALBERTO CULVER 'B', ALBERTSONS, AMERICAN, EXPRESS, AMERICAN INTLGP, AMR (AMERICAN AIRLINES), ANADARKO PETROLEUM, ANALOG DEVICES, ANGELICA, APACHE, APPLE COMPUTERS, APPLIED MATS, AUTODESK, AUTOMATIC DATA PROC, AVERY DENNISON, AVON PRODUCTS, BALDOR ELECTRIC, BANK OF AMERICA, BANK ONE, BASSETT FRTR, BECTON DICKINSON & CO, BELLSOUTH, BEMIS, BIOMET, BOB EVANS FARMS, CABOT, CALGON, CARBON, CAMPBELL SOUP, CENTEX, CHUBB, CHURCH & DWIGHT, CIGNA, CINCINNATI FIN, CINTAS, CIRCUIT, CITY STORES, CITIZENS COMMS, CLAIRE'S STORES, CLARCOR, CLOROX, COCA COLA, COCA COLA ENTS, COMCAST 'A', COMCAST SPECIAL 'A', CONSOL EN, COOPER INDS, CPI, CROSS A T, CUMMINS, CVS, CYPRESS SEMICON, DANA, DELUXE, DIONEX, DOLLAR GENERAL, DONNELLEY R R, DOW JONES & CO, EDWARDS AG, ENERGEN, EQUITABLE RESOURCES, FASTENAL, FLEETWOOD ENTS, FOOT LOCKER, FOREST LABS, FULLER 'H' 'B', GAP, GATX, GENMILLS, GENUINE PARTS, GERBER SCIEN, GOLDEN WEST FINL, GRACO GRAINGER W W, HARLAND JOHN, H HARMAN INTLINDS, HARTMARX, HEALTH CARE REIT, HEINZ HJ, HELMERICH PAYNE, HERSHEY FOODS, HILLENBRAND, HNI, HOME DEPOT, HUBBELL 'B', HUMANA, IDA CORPINCHDG, IKON OFFICE SLTN, ILLINOIS TOOL WKS, INTEL, IONICS, ISCO, JEFFERSON PILOT, JP MORGAN CHASE & CO, KB HOME, KELLY SERVICES 'A', KEYSpan, KROGER, LAWSON PRODUCTS, LEEENTERPRISES, LEGGETT&PLATT, LIMITED BRANDS, LINCOLN ELECTRIC HDG, LINCOLN NAT, LIZ CLAIBORNE, LONGS DRUG STRS, LOWE'S COMPANIES, LUBY, MANOR CARE, MARSH & MCLENNAN, MATTEL, MAY DEPTSTORES, MAYTAG, MCDONALDS, MCGRAW HILL CO, MCKESSON, MEADWESTVAC, MEDIA GENERAL, MEDTRONIC, MELLON FINL, MERCK & CO, MEREDITH, MERRILL LYNCH & CO, MICRON TECH, MILACRON, MILLER (HERMAN), MILLIPORE, MODINE, MNFG, MYLAN LABORATORIES, NCR, NEW ENGLBUSSE, NEW YORK TIMES 'A', NEWELL RUBBERMAID, NORDSON, NORDSTROM, NORFOLK SOUTHERN, NUCOR, OMNICOM GP, OSHKOSH, TRUCK 'B', PENNEY JC, PEP BOYS MANNY, PEPSIAMERICA, PEPSICO, PHILLIPS V HEUSN, PITNEY BOWES, PNC FINLSVSGP, PROCTER & GAMBLE, PROVIDIAN FINL, RADIOSHACK, REEBOK INTL, ROUSE, ROWAN COS, RYDER SYSTEM, SAFECO, SCOTTS 'A', SEALED AIR, SEARS ROEBUCK & CO, SIGMA ALDRICH, SKY FINLGP, SMITH INTL, SMUCKER JM, SNAP ON SOUTHERN, SOUTHWEST AIRLINES, SPRINT FON, SPX STANLEY WORKS, STDREGISTER, STJUDE MED, STPAUL TRAVELLERS, STRIDE RITE, STRYKER, STUDENT LN, SUN MICROSYSTEMS, SUNOCO, SUNTRUST BANKS, SUPERVALU, SYSCO, TARGET, TEKTRONIX, TELEPHONE & DATA SYS, TELLABS, TENNANT, THERMO ELECTRON, THOMAS INDS, TJX COS, TOOTSIE ROLL, TORO, TOYS R, US HOLDINGS CO, UNUMPROVIDENT, V F, VALUE LINE, VERIZON COMMS, WALGREEN, WALT DISNEY, WASHINGTON PST'B', WELLMAN, WELLS FARGO & CO, WENDY'S INTL, WESCO FINANCIAL, WGL HDG, WHIRLPOOL, WILLIAMS COS, WRIGLEY, WILLIAM JR, XEROX, YELLOW ROADWAY.

List of firms which are always in the Domini index in the estimation period by industry

Utilities: ENERGEN, EQUITABLE RESOURCES, IDACORP INCHDG, KEYSpan, PEP BOYS MANNY, SOUTHERN, WGL HDG. **Basic Materials:** AIR PRDS& CHEMS, AVERY DENNISON, BEMIS, CABOT, CALGON CARBON, FULLER 'H' 'B', MEADWESTVACO, NUCOR, SIGMA ALDRICH, WELLMAN. **Consumer Cyclical:** AMR (AMERICAN AIRLINES), BOB EVANS FARMS, CENTEX, CIRCUIT CITY STORES, CLAIRE'S STORES, COMCAST 'A', COMCAST SPECIAL 'A', CVS, DANA, DOLLAR GENERAL, DONNELLEY R R, DOW JONES & CO, FASTENAL, FLEETWOOD ENTS, FOOT LOCKER, GAP, GENUINE PARTS, HARMAN INTLINDS, HARTMARX, HNI, HOME DEPOT, KB HOME, LEEENTERPRISES, LEGGETT&PLATT, LIMITED BRANDS, LIZ CLAIBORNE, LONGS DRUG STRS, LOWE'S COMPANIES, LUBY, MATTEL, MAY DEPTSTORES, MAYTAG, MCDONALDS, MCGRAW HILL CO, MCKESSON, MEDIA GENERAL, MEREDITH, MILLER (HERMAN), MODINE, MNFG, NEW YORK TIMES 'A', NORDSTROM, OMNICOM GP, PENNEY JC, PHILLIPS V HEUSN, RADIOSHACK, REEBOK INTL, RUSSELL SEARS, ROEBUCK & CO, STRIDE RITE, TARGET, TJX COS, TOYS R, US HOLDINGS CO, V F, WALGREEN, WALT DISNEY, WASHINGTON PST'B', WENDY'S INTL, WHIRLPOOL. **Non Cyclical Consumer:** ALBERTO, ALBERTSONS, AVON PRODUCTS, BASSETT FRTR, CAMPBELL SOUP, CHURCH & DWIGHT, CLOROX, COCA COLA, COCA COLA ENTS, CROSS A T, GENMILLS, HERSHEY FOODS, KROGER, LAWSON PRODUCTS, NEW ENGLBUSSE, NEWELL RUBBERMAID, PEPSIAMERICA, PEPSICO PROCTER & GAMBLE, SCOTTS 'A', SNAP ON, STANLEY WORKS, SUPERVALU, SYSCO, TOOTSIE ROLL. **Financial:** AMERICAN EXPRESS, AMERICAN INTLGP, BANK OF AMERICA, BANK ONE, CHUBB, CINCINNATI FIN, GOLDEN WEST FINL, HEALTH CARE REIT, JEFFERSON PILOT, JP MORGAN CHASE & CO, LINCOLN NAT, MARSH & MCLENNAN, MELLON FINL, MERRILL LYNCH & CO, PNC FINLSVSGP, PROVIDIAN FINL, ROUSE, SAFECO, SKY FINLGP,

1
2
3 SOUTHWEST AIRLINES, STPAUL TRAVELLERS, SUNTRUST BANKS, UNUMPROVIDENT, VALUE LINE,
4 WELLS FARGO & CO, WESCO FINANCIAL. **Industrial:** ANGELICA, AUTOMATIC DATA PROC, BALDOR
5 ELECTRIC, CINTAS, CLARCOR, COOPER INDS, CPI, CUMMINS, DELUXE, DIONEX, GATX, GRACO,
6 GRAINGER W W, HARLAND JOHN H, HUBBELL 'B', ILLINOIS TOOL WKS, IONICS, ISCO, KELLY
7 SERVICES 'A', LINCOLN ELECTRIC HDG, MILACRON, MILLIPORE, NORDSON, NORFOLK SOUTHERN,
8 OSHKOSH TRUCK 'B', RYDER SYSTEM, SEALED AIR, SPX, STDREGISTER, TEKTRONIX, TENNANT,
9 THERMO ELECTRON, THOMAS INDS, TORO, YELLOW ROADWAY. **Chemicals:** AIR PRDS& CHEMS,
10 AVERY DENNISON, CABOT, CALGON CARBON, FULLER 'H' 'B', SIGMA ALDRICH, WELLMAN. **Energy:**
11 ANADARKO PETROLEUM, APACHE, CONSOL EN, HELMERICH PAYNE, ROWAN COS, SMITH INTL,
12 SUNOCO, WILLIAMS COS. **Health Care:** BECTO, BIOMET, CIGNA, FOREST LABS, HILLENBRAND,
13 HUMANA, MANOR CARE, MEDTRONIC, MERCK & CO, MYLAN LABORATORIES, STJUDE MED,
14 STRYKER. **Technology:** ADVDMICRO DEVC, ANALOG DEVICES, APPLE COMPUTERS, APPLIED
15 MATS, AUTODESK, CYPRESS SEMICON, GERBER SCIEN, IKON OFFICE SLTN, INTEL, MICRON
16 TECH, NCR, PITNEY BOWES, SUN MICROSYSTEMS, TELLABS, XEROX. **Telecommunications:**
17 BELLSOUTH, CITIZENS COMM, SPRINT FO, TELEPHONE & DATA SY, VERIZON COMMS.
18

19 **List of firms which are always in the Domini index in the estimation period by size**

20
21
22 **Large Cap:** AIR PRDS& CHEMS, ALBERTSONS, AMERICAN EXPRESS, AMERICAN INTLGP,
23 ANADARKO PETROLEUM, ANALOG DEVICES, APACHE, APPLIED MATS, AUTOMATIC DATA PROC,
24 AVON PRODUCTS, BANK OF AMERICA, BECTON DICKINSON & CO, BELLSOUTH CAMPBELL SOUP
25 CHUBB CLOROX COCA COLA COCA COLA ENTS COMCAST 'A' COMCAST SPECIAL 'A', CVS FOREST
26 LABS, GAP, GENMILLS, GOLDEN WEST FINL, HOME DEPOT, ILLINOIS TOOL WKS, INTEL, JP
27 MORGAN CHASE & CO, KROGER, LAWSON PRODUCTS, LIMITED BRANDS, LOWE'S COMPANIES,
28 MARSH & MCLENNAN, MATTEL, MCDONALDS, MCGRAW HILL CO, MCKESSON, MEDTRONIC,
29 MELLON FINL, MERCK & CO, MERRILL LYNCH & CO, OMNICOM GP, PITNEY BOWES, PNC
30 FINLSVSGP, PROCTER & GAMBLE, SEARS ROEBUCK & CO, SOUTHERN, SOUTHWEST AIRLINES,
31 SPRINT FON, STJUDE MED, STPAUL TRAVELLERS, STRYKER, SUN MICROSYSTEMS, SUNTRUST
32 BANKS, SYSCO, TARGET, TJX COS, VERIZON COMMS, WALGREEN, WALT DISNEY, WELLS FARGO
33 & CO, WESCO FINANCIAL, XEROX. **Small Cap:** AMR (AMERICAN AIRLINES), BOB EVANS FARMS,
34 CHURCH & DWIGHT, CLAIRE'S STORES, CLARCOR, CYPRESS SEMICON, DIONEX, DONNELLEY R R,
35 ENERGEN, EQUITABLE RESOURCES, FLEETWOOD ENTS, GATX, GERBER SCIEN, GRACO,
36 HARLAND JOHN H, HELMERICH PAYNE, HNI, IDACORP, INCHDG, IKON OFFICE SLTN, IONICS,
37 KELLY SERVICES 'A', LEE ENTERPRISES, LONGS DRUG STRS, MEDIA GENERAL, MEREDITH,
38 MILACRON, MILLER (HERMAN), MILLIPORE, MODINE, MNFG, NORDSON, OSHKOSH TRUCK 'B',
39 PHILLIPS V HEUSN, REEBOK INTL, RUSSELL, RYDER SYSTEM, SCOTT'S 'A', SKY FINLGP, SNAP ON,
40 STRIDE RITE, THOMAS INDS, TOOTSIE ROLL, TORO, VALUE LINE, WELLMAN, WGL HDG, YELLOW
41 ROADWAY. **Mid Cap:** ADVDMICRO DEVC, ALBERTO CULVER 'B', ANGELICA, APPLE COMPUTERS,
42 AUTODESK, AVERY DENNISON, BALDOR ELECTRIC, BANK ONE, BASSETT FRTR, BEMIS, BIOMET,
43 CABOT, CALGON CARBON, CENTEX, CIGNA, CINCINNATI FIN, CINTAS, CIRCUIT, CITY STORES,
44 CITIZENS, COMMS, CONSOL EN, COOPER INDS, CUMMINS, DANA, DELUXE, DOLLAR GENERAL,
45 DOW JONES & CO, FASTENAL, FOOT LOCKER, GENUINE PARTS, GRAINGER W W, HARMAN
46 INTLINDS, HEALTH CARE REIT, HERSHEY FOODS, HILLENBRAND, HUBBELL 'B', HUMANA,
47 JEFFERSON PILOT, KB HOME, KEYSpan, LEGGETT&PLATT, LINCOLN NAT, LIZ CLAIBORNE, MANOR
48 CARE, MAY DEPTSTORES, MAYTAG, MEADWESTVACO, MICRON TECH, MYLAN LABORATORIES,
49 NCR, NEW YORK TIMES 'A', NEWELL RUBBERMAID, NORDSTROM, NORFOLK SOUTHERN, NUCOR,
50 PENNEY JC, PEPSI AMERICA, PEPSICO, PROVIDIAN FINL, RADIOSHACK, ROUSE, ROWAN COS,
51 SAFECO, SEALED AIR, SIGMA ALDRICH, SMITH INTL, SPX, STANLEY WORKS, SUNOCO,
52 SUPERVALU, TEKTRONIX, TELEPHONE & DATA, SYS TELLABS, THERMO ELECTRON, TOYS R, US
53 HOLDINGS CO, UNUMPROVIDENT, V F, WASHINGTON PST 'B', WENDY'S INTL, WHIRLPOOL,
54 WILLIAMS COS, ANGELICA, BALDOR ELECTRIC, BASSETT FRTR, CALGON, CARBON, CP, I CROSS A
55 T, FULLER 'H' 'B', HARTMARX, LINCOLN ELECTRIC, HDG LUBY, NEW ENGLBUSSER, PEP BOYS,
56 MANNY.
57
58

59 **Control sample**

60 ABBOTT LABS, ACCREDO HEALTH, ACE, ADOBE SYSTEMS, ADOLPH COORS 'B', ADVAUTO PARTS,
AES, AGILENT TECHS, AGL RES, AKAMAI TECHS, ALLEGHANY, ALLERGAN, ALLIANT ENERGY

1
2
3 CORP, AMEREAGOUTFITTERS, AMERICREDIT, AMGEN, AMYLIN PHARMS, ANDRX GP, ARAMARK 'B',
4 ARDEN REALTY, ASSDBANCORP, AUTONATION, BANCORPSOUTH, BANK OF HAWAII, BANKNORTH
5 GPNEW, BB & T, BRISTOL MYERS SQUIBB, BUNGE, CAESARS ENTM, CARDINAL HEALTH,
6 CATELLUS DEV, CENTERPOINT PR, CERTEGY, CH ROBINSON WWD, CHASRVRLABSINTL,
7 CHIMERCEXHDG, CHIRON CORP, CITY NATIONAL, COLGATE PALM, COMPUTER SCIS,
8 COUNTRYWIDE FINL ,COVENTRY HLTHCR, CRESCENT REAL ESTATE EQ, CROWN, CASTLE INTL,
9 DARDEN RESTAURANTS, DELPHI AUTVSYS ,DENTSPLY INTL, DEVON ENERGY, DOLLAR TREE
10 STORES, DORAL FINANCIAL, DOW CHEMICALSE, DUCATION MANAGEMENT, EDWARDS LIFE
11 SCIENCES, EL PASO, EMULEX NEW, ENDO PHARMSHDG, ENTERCOM COMMS, ENTERGY, EQUITY
12 OFFEPROPSTST, FEDERATED INVRS'B', FIRST MARBLEHEAD, FIRSTMERIT, FISERV, FISHER
13 SCIENINTLNEW, FLORIDA ROCK INDS, GATEWAY, GEN PROBE, GENDYNAMICS, GENENTECH,
14 GREAT PLAINS EN, GREENPOINT FINL, HARRIS, HARSCO, HAWAIIAN ELECINDS, HEALTH NET,
15 HIBERNIA 'A', HORMEL FOODS, HOST MARRIOTT, HOVNANIAN ENTS'A', INAMED, INDEPENDENCE
16 CMTYBK, INGRAM MICRO 'A', INSTINET GROUP, INTERSIL 'A', INTLPAPER, INTUIT, IRON MNT, ISTAR
17 FINL, JEFFERIES GP, JUNIPER NETWORKS, KING PHARMS, KLA TENCOR, LAFARGE NORTH
18 AMERICA, LEGG MASON, LEXMARK INTLGPA, LUCENT TECHNOLOGIES, MACERICH, MACK CALI
19 RLTY, MARVEL ENTS, MARVELL TECHGP, MAXTOR, MBNA, METRO GOLDWYN, MAYER, MGM,
20 MIRAGE, MOHAWK INDS, MOLEX, MOLEX 'A', MONSANTO, MONSTER WORLDWIDE, NATIONAL
21 OILWELL, NATIONAL SEMICON, NATIONWIDE FINLSVS, NETWORK ASSOCIATES, NEWMONT
22 MINING, NEXTEL COMMSA ,NORTH FORK BANCORP, NSTARCOM NTL, OCCIDENTAL PTL, OXFORD
23 HEALTH, PLANS, PACKCORPOF AM, PACRHLTHSYS, PACTIV, PENTAIR, PINNACLE WEST CAP,
24 PIONEER NATRES, PIXAR, PLAINS ALL AMERPIPELP, PLUM CREEK TIMBER, POLARIS INDS,
25 POLYCOM, POPULAR, PPG INDUSTRIES, PPL PROLOGIS, PRUDENTIAL FINL, PUBLIC STORAGE,
26 PUBLIX SUPER MARKETS, PUBSERENTERGP, RAMBUS, RAYMOND JAMES FINL, RAYONIER, RED
27 HAT, REGENCY CENTERS, RENAISSANCERE HDG, RENAL CARE GP, RENT A CTR, RITE AID, ROHM
28 & HAAS, ROPER INDSNEW, ROSS STORES, RPM INTL, RUBY TUESDAY, SABRE HDG, SAFEWAY,
29 SANMINA, SCI, SCANA, SCIENTIFIC ATLANTA, SERVICEMASTER, SIMON PRGP, SIRVA, SMITHFIELD
30 FOODS, SONOCO PRDS, SOVEREIGN BANC, SPECTRASITE, STAPLES, STARBUCK,S STHFINLGP,
31 SUNGARD DATA, SYSTEMS, SYNOVUS FINL, TROWE PRICE GP, TALBOTS TCF FINANCIAL, TECH
32 DATA, TECO ENERGY, TELEFLEX, TEMPLE INLAND, TENET HLTHCR, TEPPCO PARTNERS L P,
33 TERADYNE, TEREX, TEXAS GENCO HDG, TEXAS INSTS, TEXTRON, THE DIRECTV GROUP,
34 THORNBURG MGE, TIBCO SOFTWARE, TIDEWATER, TIFFANY & CO, TIME WARNER, TIMKEN TOLL
35 BROS, TRANSATLANTIC HDG, TRANSOCEAN, TRI CONTINENTAL, TRIAD HOSPITALS, TRIBUNE,
36 TRIZEC PROPS, TRUSTMARK, TRW AUTVHDG, TXU, TYCO INTL, TYSON FOODS 'A', UCBH, UNION
37 PACIFIC, UNION PLANTERS, UNIONBANCAL, UNISYS, UNITED PARCEL SER'B', UNITED
38 TECHNOLOGIES, UNITEDGLOBALCOM 'A', UNITEDHEALTH GP, UNITRIN, UNIVERSAL HEALTH,
39 SVS'B', UNOCAL, USCELLULAR, USSTEEL, UTDDOMINION REALTY TST, VENTAS, VERISIGN,
40 VERITAS SOFTWARE, VISHAY INTERTECH, VORNADO REALTY TST, VULCAN MATERIALS, W
41 HOLDING COMPANY, WACHOVIA, WASTE MAN, WATERS, WATSON PHARMS, WEATHERFORD INTL,
42 XILINX XL CAP'A', YAHOO, ZIMMER HDG.

Control sample by industry

43
44
45
46
47 **Energy:** DEVON ENERGY, EL PASO, NATIONAL OILWELL, OCCIDENTAL PTL, TIDEWATER,
48 TRANSOCEAN, UNOCAL, WEATHERFORD INTL. **Financial:** ACE, AMERICREDIT, ARDEN REALTY,
49 ASSDBANCORP, BANCORPSOUTH, BANK OF HAWAII, BANKNORTH GPNEW, BB & T, CATELLUS
50 DEV, CENTERPOINT PR, CITY NATIONAL COUNTRYWIDE FINL, CRESCENT REAL ESTATE EQ,
51 DORAL FINANCIAL, EQUITY OFFEPROPSTST, FEDERATED INVRS'B', FIRSTMERIT,
52 GREENPOINTFINL, HIBERNIA 'A', HOST MARRIOTT, INDEPENDENCE CMTYBK, ISTAR FINL,
53 JEFFERIES GP, LEGG MASON, MACERICH, MACK CALI RLTY, MBNA, NATIONWIDE FINLSVS, NORTH
54 FORK BANCORP, PLUM CREEK TIMBER, POPULAR, PROLOGIS, PRUDENTIAL FINL, PUBLIC
55 STORAGE, RAYMOND JAMES FINL, RAYONIER, REGENCY CENTERS, RENAISSANCERE HDG,
56 SIMON PRGP, STHFINLGP, SOVEREIGN BANC, SYNOVUS FINL, T ROWE PRICE GP, TCF FINANCIAL,
57 THORNBURG MGE, TRANSATLANTIC HDG, TRIZEC PROPS, TRUSTMARK, UCBH, UNIONBANCAL,
58 UTDDOMINION REALTY TST, UNITRIN, VENTAS, VORNADO REALTY TST, W HOLDING COMPANY,
59 WACHOVIA, XL CAP'A'. **Industrial:** AGILENT TECH, CERTEGY, FISERV, FLORIDA ROCK INDS,
60 GENDYNAMICS, HARSCO, INGRAM MICRO 'A', IRON MNT, LAFARGE NORTH AMERICA, MOLEX,
MOLEX 'A', MONSTER WORLDWIDE, PACKCORPOF AM, PACTIV, PENTAIR, ROPER INDSNEW,
SABRE HDG, SANMINA SCI, SONOCO PRDS, TECH DATA, TECO ENERGY, TELEFLEX, TEMPLE
INLAND, TEREX, TEXTRON, TIMKEN, TYCO INTL, UNION PACIFIC, UNITED PARCEL SER'B', UNITED

1
2
3 TECHNOLOGIES, VISHAY INTERTECH, VULCAN MATERIALS, WASTE MAN, WATERS. **Technology:**
4 ADOBE SYSTEMS, AKAMAI TECHS, COMPUTER SCIS, CROWN CASTLE INTL, EMULEX NEW,
5 GATEWAY, HARRIS, INTERSIL 'A', INTUIT, JUNIPER NETWORKS, KLA TENCOR, LEXMARK INTLGPA,
6 LUCENT TECHNOLOGIES, MARVELL TECHGP, MAXTOR, NATIONAL SEMICON, POLYCOM, RAMBUS,
7 RED HAT, SCIENTIFIC ATLANTA, SPECTRASITE, SUNGARD DATA SYSTEMS, TERADYNE, TEXAS
8 INSTS, TIBCO SOFTWARE, UNISYS, VERISIGN, VERITAS SOFTWARE, XILINX, YAHOO. **Health Care:**
9 ABBOTT LAB, ACCREDO HEALTH, ALLERGAN, AMGEN, AMYLIN PHARMS, ANDRX GP, BRISTOL
10 MYERS SQUIBB, CHIRON CORP, COVENTRY HLTHCR, DENTSPLY INTL, EDWARDS LIFESCIENCES ,
11 FISHER SCIENINTLNEW, GEN PROBE, GENENTECH, HEALTH NET, INAMED, KING PHARMS,
12 MONSANTO, OXFORD HEALTH PLANS, PACRHLTHSYS, RENAL CARE GP, TENET HLTHCR, TRIAD
13 HOSPITALS, UNITEDHEALTH GP, UNIVERSAL HEALTH SVS'B', WATSON PHARMS, ZIMMER HDG
14 **Telecommunications:** NEXTEL COMMS, USCELLULAR. **Utilities:** AES, AGL RES, ALLIANT ENERGY
15 CORP, ENTERGY, GREAT PLAINS EN, HAWAIIAN ELECINDS, NSTARCOM, PINNACLE WEST CAP,
16 PPL, PUBSERENTERGP, SCANA, TEXAS GENCO HDG.

17 18 **Control sample by size**

19
20 **Large Cap:** ABBOTT LABS, ACE, ADOBE SYSTEMS, AGILENT TECHS, ALLERGAN, AMGEN, BB & T,
21 BRISTOL MYERS SQUIBB, BUNGE, CARDINAL HEALTH, COLGATE PALM, COUNTRYWIDE FINL,
22 DEVON ENERGY, DOW CHEMICALS, ENTERGY, EQUITY OFFEPROPSTST, GENDYNAMICS,
23 GENENTECH, INTLPAPER, INTUIT, JUNIPER NETWORKS, KLA TENCOR, LEXMARK INTLGPA,
24 LUCENT TECHNOLOGIES, MBNA, NEWMONT MINING, NEXTEL COMMSA, OCCIDENTAL PTL,
25 PIONEER NATRES, PPG INDUSTRIES, PRUDENTIAL FINL, SAFEWAY, STAPLES, STARBUCKS, TEXAS
26 INSTS, TIME WARNER, TRIBUNE, TYCO INTL, UNION PACIFIC, UNITED PARCEL SER'B', UNITED
27 TECHNOLOGIES, UNITEDHEALTH GP, VERITAS SOFTWARE, WACHOVIA, WASTE MAN, XILINX, XL
28 CAP'A', YAHOO, ZIMMER HDG. **Small Cap:** ACCREDO, AGL RES, AKAMAI TECHS,
29 AMEREAGOUTFITTERS, ARAMARK 'B', ARDEN REALTY, BANCORPSOUTH, BANK OF HAWAII,
30 CATELLUS DEV, CENTERPOINT PR, EDUCATION MANAGEMENT, EDWARDS LIFESCIENCES,
31 FIRSTMERIT, FLORIDA ROCK INDS, GATEWAY, GEN PROBE, HARSCO, HAWAIIAN ELECINDS,
32 HOVNANIAN ENTS'A, INAMED, INDEPENDENCE CMTYBK , INGRAM MICRO 'A', JEFFERIES GP,
33 MACERICH, MACK CALI RLTY, MAXTOR, NATION WIDE FINLSVS, POLARIS INDS, RAYMOND JAMES
34 FINL, RAYONIER, RENAL CARE GP, RENT A CTR, ROPER INDSNEW, RPM INTL ,RUBY TUESDAY,
35 STHFINLGP, TALBOTS, TECH DATA, TELEFLEX, TEREX, THORNBURG MGE, TIBCO SOFTWARE,
36 TIMKEN, TRUSTMARK, UCBH, USCELLULAR, UTDDOMINION REALTY TST, VENTAS, W HOLDING
37 COMPANY. **Mid Cap:** ADOLPH COORS 'B', AES, ALLIANT ENERGY CORP, AMERICREDIT, AMYLIN
38 PHARMS, ANDRX GP, ASSDBANCORP, AUTONATION, BANKNORTH GPNEW, CAESARS ENTM,
39 CERTEGY, CHIRON CORP, CITY NATIONAL, COMPUTER SCIS, COVENTRY HLTHCR, CRESCENT
40 REAL ESTATE EQ, CROWN CASTLE INTL, DARDEN RESTAURANTS, DELPHI AUTVSYS, DENTSPLY
41 INTL, DOLLAR TREE STORES, DORAL FINANCIAL, EL PASO, EMULEX NEW, ENTERCOM COMMS,
42 FEDERATED INVR'S'B', FISERV, FISHER SCIENINTLNEW, GREAT PLAINS EN, GREENPOINT FINL,
43 HARRIS, HEALTH NET, HIBERNIA 'A', HORMEL FOODS, HOST MARRIOTT, INTERSIL 'A', IRON MNT,
44 ISTAR FINL, KING PHARMS, LAFARGE NORTH AMERICA, LEGG MASON, MARVEL ENTS, MARVELL
45 TECHGP, METRO GOLDWYN MAYER, MGM MIRAGE, MOHAWK INDS, MOLEX, MOLEX 'A',
46 MONSANTO, MONSTER WORLDWIDE, NATIONAL OILWELL, NATIONAL SEMICON, NORTH FORK
47 BANCORP, NSTARCOM, NTL, OXFORD HEALTH PLANS, PACKCORPOF AM, PACRHLTHSYS, PACTIV,
48 PENTAIR, PINNACLE WEST CAP, PIXAR, PLUM CREEK TIMBER, POLYCOM, POPULAR, PPL,
49 PROLOGIS, PUBLIC STORAGE, PUBLIX SUPER MARKETS, PUBSERENTERGP, RAMBUS, RED HAT,
50 REGENCY, CENTERS, RENAISSANCERE HDG, RITE AID, ROHM & HAAS, ROSS, STORES, SABRE
51 HDG, SANMINA, SCI, SCANA, SCIENTIFIC ATLANTA, SERVICEMASTER, SIMON PRGP, SMITHFIELD
52 FOODS, SONOCO PRDS, SOVEREIGN BANC, SPECTRASITE, SUNGARD DATA, SYSTEMS, SYNOVUS
53 FINL, TROWE PRICE GP, TCF FINANCIAL, TECO ENERGY, TEMPLE INLAND, TENET HLTHCR,
54 TERADYNE, TEXAS GENCO HDG, TEXTRON, THE DIRECTV GROUP, TIDEWATER, TIFFANY & CO,
55 TOLL BROS, TRANSATLANTIC HDG, TRANSOCEAN, TRIAD HOSPITALS, TRIZEC PROPS, TYSON
56 FOODS 'A', UNIONBANCAL, UNISYS, UNITEDGLOBALCOM 'A', UNITRIN, UNIVERSAL, HEALTH SVS'B',
57 UNOCAL, USSTEEL, VERISIGN, VISHAY INTERTECH, VORNADO REALTY TST, VULCAN MATERIALS,
58 WATERS, WATSON PHARMS, WEATHERFORD INTL.

Entries (into) an exits (from) the Domini index by year and motivation

Entries	Community	Corp.gov	Diversity	Empl.Relat.	Environment	Human R.	Product	Contr.Issue
1990	1	4	1	2	-	-	2	-
1991	-	2	3	-	1	-	-	-
1992	1	5	2	2	1	-	1	-
1993	1	11	1	1	2	-	-	-
1994	1	3	-	3	2	-	1	-
1995	6	5	2	2	-	-	-	-
1996	3	8	3	2	-	-	1	-
1997	2	6	2	3	4	-	7	-
1998	2	19	17	15	5	-	3	-
1999	3	11	11	8	3	-	1	-
2000	3	32	5	3	2	-	2	-
2001	4	22	3	1	1	-	4	-
2002	2	1	11	1	3	1	7	-
2003	3	10	1	1	-	-	10	-
2004	1	-	1	1	-	1	-	-

Exits from the Domini index by year and motivation

Exit	Community	Corp.gov	Diversity	Empl.Relat.	Environment	Human R.	Product	Contr.Issue
1990	-	6	-	-	-	-	-	4
1991	-	5	-	1	-	-	-	1
1992	-	8	-	-	1	-	1	1
1993	1	12	-	-	1	-	2	-
1994	-	9	-	-	1	-	-	-
1995	-	15	-	-	-	-	-	-
1996	-	13	-	-	2	-	-	1
1997	1	20	-	-	-	-	-	1
1998	-	45	-	-	1	-	-	2
1999	1	34	-	-	-	-	-	2
2000	-	48	-	-	-	-	-	2
2001	-	34	-	-	-	-	1	2
2002	1	16	1	1	1	1	2	3
2003	-	20	-	-	-	-	-	5
2004	-	1	1	-	-	-	1	1

App. 2

Chronology of entries and exits from the Domini index

Date Effective	Deletion	Reason	Addition	Reason
5/31/1990	Johnson Controls	Military	Claire's Stores	Diversity
5/31/1990	Systematics	Acquired by Alltel Corporation	Biomet on	Employee
8/31/1990	Black & Decker	Military	Wesco Financial	Product/Quality
8/31/1990	Ametek	Military	Cintas	Industry
8/31/1990	Phillips Industries	Acquired by Tomkins PLC (UK)	U.S. Healthcare	Industry
9/15/1990	Sovran Financial	Acquired by Citizens and Southern Corp.	Fastenal	Product/Quality
9/30/1990	Prime Motor Inns	Financial	Cabot Corporation	Industry
10/15/1990	Corroon & Black	Acquired by Willis Faber (UK)	Dollar General	Community
10/31/1990	Dennison Manufacturing	Acquired by Avery International Corp.	Measurex	Industry
12/31/1990	Acme Cleveland	Nuclear	Tellabs	Employee
3/1/1991	Paccar	Employee, South Africa	CoreStates	Diversity
4/15/1991	Thermo Instrument Systems	Nuclear	Alza	Industry
5/31/1991	Tonka Corp.	Acquired by Hasbro	Charming Shoppes	Diversity
5/31/1991	Square D	Acquired by Schneider SA	Zurn Industries	Environment
7/1/1991	America West	Financial	Eastern Enterprises	Environment
9/30/1991	NCR	Acquired by AT&T	Alaska Airlines	Industry
10/31/1991	Cross & Trecker	Dropped by S&P	Sunrise Medical	Diversity
2/28/1992	Corning	Product/Quality; breast implants	Cooper Industries	Industry
4/2/1992	Chemical Bank	Merger with Manufacturers Hanover Corp.	BET Holdings	Diversity
4/2/1992	Kansas Power & Light	Acquired by Kansas Gas and Electric Company	Cisco Systems	Industry
5/1/1992	Ameritrust	Acquired by Society Corp.	Borland International	Employee
5/1/1992	Security Pacific	Acquired by Bank of America	Cincinnati Financial	Product/Quality
5/1/1992	INB Financial	Acquired by NBD Bancorp	DeVry	Community
8/19/1992	Wang	Financial	Novell	Employee
9/1/1992	Northern Telecom	South Africa	Perkin-Elmer	Industry

10/1/1992	Burlington Resources	Environment	Turner Broadcasting	Diversity
11/1/1992	Wetterau	Acquired by Supervalu Inc.	El Paso Natural Gas	Environment
12/1/1992	Sara Lee	Tobacco	Raychem	Industry
1992	United Telecommunications	Name change	Sprint Corporation	Name change
2/1/1993	Microsoft	South Africa	Whole Foods Market	Employee
2/15/1993	Lotus	South Africa	Oklahoma Gas & Electric	Industry
2/15/1993	Autodesk	South Africa	Quarterdeck Office Systems	Diversity
4/30/1993	Measurex	South Africa	Praxair	Environment, Industry
4/30/1993	Tambrands	South Africa	Public Service Co.	Industry
5/15/1993	Van Dorn	Acquired by Crown Cork & Seal	MCN Corp.	Environment, Industry
7/31/1993	Digital Equipment Corp.	South Africa	Fifth Third Bancorp	Community
9/30/1993	Johnson Products	Acquired by Ivax	Johnson & Johnson	Industry, South Africa Lifted
9/30/1993	Affiliated Publications	Acquired by NYT	Hewlett-Packard	Industry, South Africa Lifted
10/31/1993	Baxter International	Product, Other (Arab Boycott)	Allergan	Industry, South Africa Lifted
10/31/1993	Chambers Development	Environment (Landfill)	Autodesk	Industry, South Africa Lifted
10/31/1993	Fleet Financial	Community	Digital Equipment	Industry, South Africa Lifted
10/31/1993	National Medical Enterprises	Product/Quality (Criminal Investigations)	Lotus Development	Industry, South Africa Lifted
10/31/1993	Monarch Machine Tools	Industry, Other (Dropped by S&P)	Nalco Chemical	Industry, South Africa Lifted
11/1/1993	Medco Containment Services	Acquired by Merck	Schering Plough on 12/1/93	Industry, South Africa Lifted
12/1/1993	Primerica	Merged with Travelers	Colgate-Palmolive on 1/1/94	Industry, South Africa Lifted
5/13/1994	Capital Holding Corporation	Name change	Providian Corporation	Name change
6/16/1994	Software Toolworks	Acquired by Pearson Plc (Britian)	Sonoco on 6/29/94	Environment, Industry
6/29/1994	ASK Computer	Acquired by Computer Associates International	Kennetech	Environment
7/1/1994	Gerber	Acquired by Sandoz AG (Switzerland)	Spartan Motors	Product/Quality
8/15/1994	Medical Care America	Acquired by HCA Inc.	American Power Conversion	Employee, Product/Quality
9/21/1994	McCaw	Acquired by AT&T	NYNEX	Employee
9/21/1994	Neutrogena	Acquired by Johnson & Johnson	Kellogg	South Africa Lifted
9/30/1994	Safety-Kleen	Environment (Regulatory Problems)	FirstFed	Community
10/7/1994	McKesson	Acquired by Lilly	Avery Dennison	Industry
12/7/1994	Magma Power	Acquired by California Energy	Xilinx	Employee
5/11/1995	Continental Corp.	Acquired by CNA (Owned by Loews)	Scholastic Corporation	Community, Diversity

5/22/1995	Clark Equipment	Acquired by Ingersoll-Rand	United American Healthcare	Diversity
7/6/1995	Lotus Development	Acquired by International Business Machines	Solectron	Diversity, Product/Quality
7/21/1995	AMP Inc.	Acquired M/A Com (Military Contractors)	International Business Machines	Community
8/6/1995	Worldway Corporation	Acquired by Arkansas Best Corporation	Odwalla, Inc.	Employee, Product/Quality
9/28/1995	Santa Fe Pacific Corp.	Acquired by Burlington Northern, Inc.	Charles Schwab Corp.	Community, Employee
11/7/1995	Zenith Electronics	Acquired by LG Electronics, Inc. (Korea SE)	Timberland	Community
11/13/1995	US West	Split into two classes of stock	US West Communications	Industry, Replaced US West
11/13/1995	Wallace Computer Services	Acquired by Moore Corp.	US West Media	Industry, Replaced US West
11/24/1995	CBS Inc.	Acquired by Westinghouse	Molex	Industry
12/1/1995	Shawmut National	Acquired by Fleet	First Chicago NBD	Industry (Merger of First Chicago and NBD)
12/1/1995	First Chicago	Merged with NBD	Deere Inc.	Employee, Product/Quality
12/1/1995	NBD Bancorp	Merged with First Chicago	Starbucks	Community, Employee
12/12/1995	Scott Paper	Acquired by Kimberly Clark	Kimberly Clark	Industry, Acquired Scott
12/29/1995	First Fidelity Bancshare	Acquired by First Union	Oxford Health Plans	Community, Industry
1/5/1996	CCH Inc.	Acquired by Wolters Kluwer NV	Banta Corp.	Industry
1/8/1996	GEICO Corp.	Acquired by Berkshire Hathaway	Boston Scientific	Industry
1/23/1996	Archer-Daniels-Midland	Alcohol, Other	National Semiconductor	Diversity, Employee
2/12/1996	Capital Cities / ABC	Acquired by The Walt Disney Company	MBNA	Community
2/20/1996	Petrie Stores	Financial	Gerber Scientific	Product/Quality
3/7/1996	Gannett Company	Employee (Labor Problems)	3Com	Employee, Industry
3/7/1996	Knight-Ridder	Employee (Labor Problems)	Case Corporation	Employee, Industry
3/7/1996	Morrison Restaurants	Split into three	Ruby Tuesday	Industry (Retained from Morrison split-up)
4/3/1996	Caliber Systems	Roadway Services split-up	Roadway Express	Industry (Retained from Roadway split-up)
4/17/1996	Premier Industrial	Acquired by foreign firm	Marquette Electronics	Diversity, Employee
6/19/1996	Groundwater Technology	Acquired by Fluor Daniel	Edmark Corporation	Diversity, Product/Quality
7/31/1996	U.S. Healthcare	Acquired by Aetna	W.H. Brady	Community, Diversity, Employee
10/10/1996	Turner Broadcasting	Acquired by Time Warner	Crown, Cork & Seal	Community, Industry
10/16/1996	Melville Corporation	Ticker Change	Melville Corporation	Ticker change
11/21/1996	Melville Corporation	Name change	CVS Corporation	Name change
12/2/1996	Edmark	Acquired by IBM	Microsoft	Industry, Large S&P
12/31/1996	Consolidated Freightways, Inc.	Spinoff	Consolidated Freightways Corporation	Spinoff

1/2/1997	Oklahoma Gas and Electric C	Name change	OGE Energy Corp.	OGE Energy Corp.
1/16/1997	Alexander & Alexander	Acquired by Aon	Merix Corporation	Diversity, Product
1/23/1997	KENETECH	Financial difficulties	Nature's Sunshire	Product
1/23/1997	Briggs & Stratton	Labor and community	Sonat	Environment
1/27/1997	Alco Standard Corporation	Name change	Ikon Office Solutions, Inc.	Name change
2/14/1997	Noram Energy	Acquired by Houston Industries	Western Atlas	Industry, Large S&P
4/2/1997	Pacific Telesis	Merged with SBC Communications	Granite Construction	Product
5/28/1997	Goulds Pumps	Acquired by ITT Industries	Hutchinson Technologies	Product, Diversity
5/28/1997	ConRail	Acquired by CSX/Norfolk Southern	AT&T	Employee
6/11/1997	Providian Corporation	Aquired by Aergon NV (Neatherlands)	Providian Financial Corporation	Spun-off from Providian Corporation
6/16/1997	National Education	Acquired by Harcourt General	MBIA	Community, Diversity, Employee/S&P
6/20/1997	USLIFE	Acquired by American General	Black & Decker	Product/Large S&P
6/20/1997	Transitional Hospitals	Acquired by Vencor	Broderbund Software	Employee
7/8/1997	Great Western Financial	Acquired by Washington Mutual	Washington Mutual	Acquired Great Western Financial
8/1/1997	Allwaste, Inc.	Acquired by Philips Environmental (Canadian company)	IMCO Recycling Inc.	Beneficial Product/Service
8/4/1997	Public Service Company of Colorado	Name change	New Centuries Energy, Inc.	Name change
8/18/1997	BET Holdings	Labor	Union Pacific Resources	Environment,Employee
8/18/1997	NYNEX Corporation	Acquired by Bell Atlantic	Central Louisiana Electric Company, Inc.	Environment,Diversity
8/29/1997	Tandem Computers	Acquired by Compaq	QuickResponse Services, Inc.	Community,Diversity,Employee, Product
9/15/1997	Amdahl	Acquired by Fujitsu	Champion Enterprises, Inc.	Diversity, Employee
10/2/1997	Hechinger Company	Acquired by Leonard Green & Partners LP	Northwest Natural Gas Company	Employee,Environment,Other
10/10/1997	Thermo Electron Corporation	Substantial Military Involvement	Interface, Inc.	Strong Environmental Record, CERES Signatory
10/27/1997	Louisiana Land & Exploration Co.	Acquired by Burlington Resources	Dell Computer Corporation	innovative product, Employee
12/9/1997	NIKE, Inc	International Labor Controversies	Guidant Corporation	innovative product
1/8/1998	International Dairy Queen	Acquired by Berkshire Hathaway	Wendy's International	Diversity, Employee Involvement, Environment-Recycling
1/8/1998	CPC International	Spun off part of their business and changed name	Bestfoods	New name for CPC International after spinning off corn bu
1/14/1998	Barnett Banks Inc	Acquired by NationsBank	LSI Logic Corporation	Employee strength
1/28/1998	Federal Express Corporation	Acquired Caliber System and changed name to FDX Holding	FDX Holding Corp.	Federal Express acquired Caliber System and formed FDX
3/9/1998	CSX Corp	Poor environmental and safety record	Mallinckrodt Inc	Industry Diversification

3/23/1998	ONEOK, Inc	Large ownership by Western Resources, a nuclear utility	Texas Instruments	Diversity and Employee Strength
4/29/1998	USF&G Corporation	Acquired by St. Paul Companies	Caraustar Industires, Inc	Environment-Recycling
4/30/1998	CoreStates Financial Corp	Acquired by First Union Corp	Ault Incorporated	Diversity and Employee Strength
5/1/1998	Central Louisiana Electric Company	Name change	Cleco Corporation	Name change
5/1/1998	Stanhope Inc.	Name change	Enesco Group, Inc.	Name change
5/7/1998	Northwestern Public Service Company	Name change	Northwestern Corporation	Name change
5/8/1998	Piper Jaffray Companies Inc.	Acquired by U.S. Bancorp	Synovus Financial Corp.	Employee strength
5/11/1998	QuickResponse Services, Inc.	Name change	QRS Corporation	Name change
6/1/1998	Keyspan Energy Corporation	Name change	MarketSpan	Name change
6/8/1998	Borland International, Inc.	Name change	Inprise Corporation	Name change
6/12/1998	Woolworth Corporation	Name change	Venator Group, Inc.	Name change
6/12/1998	U S West Communications	Name change	U S West, Inc.	Name change
6/12/1998	U S West Media Group	Name change	MediaOne Group, Inc.	Name change
6/17/1998	Zurn Industries, Inc.	Acquired by U.S. Industries, Inc.	EMC Corporation	Innovative Product, Lean Management
6/18/1998	Digital Equipment Corporation	Acquired by Compaq Computer Corporation	Ceridian Corporation	Diversity Strengths
6/30/1998	Pacific Enterprises	merged with Enova Corporation	Adaptec, Inc.	Diversity, Employee Strengths
7/1/1998	Beneficial Corp.	Acquired by Household International, Inc.	Scientific-Atlanta, Inc.	Industry Diversification
7/17/1998	Giant Food Inc.	Acquired by Royal Ahold NV	MGIC Investment Corporation	Product
7/30/1998	ARCO Chemical Company	Acquired by Lyondell Petrochemical Co.	Emerson Electric Co.	Environment, Quality
8/7/1998	Spec's Music, Inc.	Acquired by Camelot Music Holdings Inc.	The Vincam Group, Inc	Diversity, Product
8/12/1998	Western Atlas Inc.	Acquired by Baker Hughes Inc.	Gillette Company	Diversity, Environment
8/14/1998	International Business Machines Corporation	Military, sold supercomputers to Russian nuclear weapons facility	Lucent Technologies Inc.	Diversity, Employee
8/19/1998	Mercantile Stores Company, Inc.	Acquired by Dillard Department Stores, Inc.	Staples, Inc.	Product
9/21/1998	DSC Communications Corporation	Acquired by Alcatel-Althsom SA	IMS Health Incorporated	Diversity
9/21/1998	MCI Communications Corporation	Acquired by WorldCom	AirTouch Communications	Diversity
10/5/1998	Broderbund Software, Inc.	Acquired by The Learning Company	HBO & Co.	Employee, Industry Representation
10/5/1998	Manor Care, Inc.	merged with Health Care and Retirement Corporation	ADAC Laboratories	Employee, Quality, Industry Representation
10/5/1998	BankAmerica Corporation	Acquired by NationsBank Corporation	Symantec Corporation	Diversity, Employee
10/5/1998	First Chicago NBD Corp.	Merged with Banc One Corporation	BMC Software, Inc.	Employee
10/6/1998	H.F. Ahmanson & Company	Acquired by Washington Mutual, Inc.	U. S. Bancorp	Community, Diversity

10/13/1998	Travelers Group Inc.	Merged with Citicorp	PeopleSoft, Inc.	Diversity, Employee, Product
10/13/1998	General Signal Corporation	Acquired by SPX Corporation	Ecolab Inc.	Community, Employee, Environment, Product
10/20/1998	Cincinnati Milacron Inc.	Name change	Milacron Inc.	Name change
10/20/1998	Brady (W.H.) Company	Name change	Brady Corporation	Name change
10/20/1998	MarketSpan	Name change	KeySpan Energy	Name change
10/22/1998	Stratus Computer, Inc.	Acquired by Ascend Communications, Inc.	Men's Wearhouse, Inc.	Employee
10/26/1998	BetzDearborn	Acquired by Hercules, Inc.	Fred Meyer, Inc.	Diversity
11/2/1998	Southern New England Telecommunications Corporation	Acquired by SBC Communications Inc.	Aquarion Company	Diversity
11/5/1998	Norwest Corporation	merged with Well Fargo & Company	Osmonics Inc.	Diversity, Environment
11/9/1998	Sun Company, Inc.	Name change	Sunoco, Inc.	Name change
11/24/1998	Quarterdeck Corporation	Acquired by Symantec Corporation	Questar Corporation	Employee, Environment
11/24/1998	Marquette Medical Systems, Inc.	Acquired by General Electric Company	First Tennessee National Corporation	Diversity, Employee
12/18/1998	General Re Corporation	Acquired by Berkshire Hathaway	Wild Oats Markets, Inc.	Diversity, Employee, Environment
12/31/1998	Pennzoil Company	Name change	PennzEnergy Corporation	Name change
1/5/1999	Amoco Corporation	Acquired by British Petroleum Company Plc	Catalytica, Incorporated	Employee, Environment, Product, Other Strengths
1/12/1999	HBO & Co.	Acquired by McKesson Corporation	McKesson HBOC, Inc.	Industry Representation
1/11/1999	Luby's Cafeterias, Inc.	Name change	Luby's Inc.	Name change
2/26/1999	Oryx Energy Company	Acquired by Kerr-McGee Corporation	Cascade Natural Gas Corporation	Environment, Diversity, Other
2/26/1999	Inland Steel Industries, Inc.	Name change	Ryerson Tull, Inc.	Name change
3/10/1999	Tele-Communications, Inc.	Acquired by AT&T	Compuware Corporation	Employee, Diversity Strengths
3/11/1999	The Vincam Group, Inc.	Acquired by Automatic Data Processing, Inc.	Darden Restaurants, Inc.	Diversity Strengths
3/15/1999	CalEnergy Company, Inc.	Name change	MidAmerican Energy Holdings Company	Name change
3/16/1999	MidAmerican Energy Holdings Company	Derives power from nuclear; joint owner of nuclear plant	Minerals Technologies Inc.	Employee, Environment, Product Strengths
3/24/1999	Rubbermaid Inc.	Acquired by Newell Co.	Tupperware Corporation	Diversity Strengths
4/30/1999	Fred Meyer, Inc.	In anticipation of being Acquired by Kroger Co.	Bandag, Incorporated	Diversity, Environment Strengths
5/6/1999	The Perkin-Elmer Corporation	Name change	PE Corp-PE Biosystems Group	Name change
5/6/1999	Santa Fe Energy Resources	Name change	Santa Fe Snyder Corporation	Name change
5/28/1999	Vermont Financial Services Corporation	Acquired by Chittenden Corporation	Chittenden Corporation	Community Strengths
5/28/1999	Brown Group, Inc.	Name change	Brown Shoe Company, Inc.	Name change

6/4/1999	Bankers Trust Corporation	Acquired by Deutsche Bank	Firststar Corporation	Community Strengths
6/16/1999	KeySpan Energy Corporation	Name change	KeySpan Corporation	Name change
6/22/1999	Morton International, Inc.	Acquired by Rohm and Haas Company	AutoZone, Inc.	Product Strengths
6/23/1999	American Stores Companies	Acquired by Albertson's, Inc.	Capital One Financial Corporation	Diversity, Employee Strengths
6/28/1999	AirTouch Communications	Acquired by Vodafone Group Plc	Arrow Electronics, Inc.	Employee, Diversity, Product Strengths
7/1/1999	UNUM Corporation	Name change	UnumProvident Corporation	Name change
7/27/1999	Transamerica Corporation	Acquired by Aegon NV	Delphi Automotive Systems Corp.	Employee Strength, Industry Representation
8/9/1999	Battle Mountain Gold Company	Community controversy	Paychex, Inc.	Diversity, Employee Strengths
8/9/1999	Nalco Chemical Company	Pending acquisition by Suez Lyonnaise des Eaux	The Progressive Corporation	Employee Strength
8/16/1999	Raychem Corporation	Acquired by Tyco International Ltd.	Steelcase Inc.	Employee Strengths
8/19/1999	PennzEnergy Company	Acquired by Devon Energy Corporation	Qualcomm, Inc.	Diversity, Employee Strengths
9/23/1999	Costco Companies Inc	Name change	Costco Wholesale Corporation	Name change
10/1/1999	Frontier Corporation	Acquired by Global Crossing Ltd.	Lexmark International Group, Inc.	Diversity , Employees Strengths
10/4/1999	BankBoston Corporation	Acquired by Fleet Financial Group	National Fuel Gas Company	Environment Strength
10/13/1999	Ameritech Corporation	Acquired by SBC Communications Inc.	AFLAC Inc.	Diversity, Employee Strengths
10/20/1999	Mellon Bank Corporation	Name change	Mellon Financial Corporation	Name change
10/27/1999	Sonat Inc.	Acquired by El Paso Energy Corp.	Watson Pharmaceuticals, Inc.	Diversity Strengths
11/15/1999	Case Corporation	Acquired by New Holland N.V.	Donnelly Corporation	Employee Strength, Industry Representation
11/17/1999	King World Productions, Inc.	Acquired by CBS Corp.	Stillwater Mining Company	Environment, Employee Strengths, Industry Representation
11/22/1999	Egghead.com, Inc.	Acquired by Onsale	ADC Telecommunications, Inc.	Diversity Strength, Large Market Capitalization
12/3/1999	Cyprus Amax Minerals Company	Acquired by Phelps Dodge Corporation	Sanmina Corporation	Diversity, Employee Strengths
12/23/1999	Hasbro, Inc.	Licenses Brand Name to Gambling Services Company	Northern Trust Corporation	Community, Diversity, Employee Strengths, Industry Representation
1/6/2000	TJ International, Inc.	Acquired by Weyerhaeuser Company	Manor Care, Inc.	Industry Representation
1/10/2000	Aquarion Company	Acquired by Kelda Group plc	National City Corporation	Community, Diversity, Employee Strengths, Industry Representation
1/21/2000	FDX Holding Corporation	Name change	FedEx Corporation	Name change
1/31/2000	Consolidated Natural Gas Company	Acquired by Dominion Resources, Inc.	AstroPower, Inc.	Environment Strength
1/31/2000	Dayton Hudson Corporation	Name change	Target Corporation	Name change
2/10/2000	Connecticut Energy Corporation	Acquired by Energy East Corporation	KeyCorp	Community & Employee Strengths, Industry Representation
3/2/2000	Gibson Greetings, Inc.	Acquired by American Greetings Corporation	Yahoo! Inc.	Diversity & Employee Strengths, Large Market Capitalization
3/15/2000	PNC Bank Corp.	Name change	PNC Financial Services Group	
4/17/2000	Atlantic Richfield Company	Acquired by BP Amoco Plc	America Online	Market Capitalization and Employee Strength

4/19/2000	Worthington Industries, Inc.	Ticker change	Worthington Industries, Inc.	Ticker change
4/20/2000	TCBY Enterprises, Inc.	Acquired by Capricorn Investors III LP	Horizon Organic Holding Corp.	Environment Strength
5/2/2000	United American Healthcare	Ticker change	United American Healthcare	
5/9/2000	Jostens, Inc.	Acquired by Investcorp Bank	Quintiles Transnational Corp.	Industry Representation and Diversity Strength
5/19/2000	Citizens Utilities Co.	Name change	Citizens Communications Company	
5/31/2000	Tandy Corporation	Name change	RadioShack Corporation	name and ticker change
6/7/2000	Shared Medical Systems Corporation	Acquired by Siemens AG	Kansas City Southern Industries, Inc.	Industry Representation, Large Market Capitalization
6/12/2000	Marriott International Inc.	Gambling	Univision Communications Inc.	Diversity Strengths, Industry Representation, Large Market Capitalization
6/12/2000	Times Mirror Company	Acquired by Tribune Company	Tribune Company	Community and Product Strengths, Market Capitalization
6/19/2000	MediaOne Group, Inc.	Acquired by AT&T Corp.	Donaldson Company, Inc.	Industry Representation, Environment Strength
6/21/2000	Alcoa, Inc.	Military	Comerica Incorporated	Industry Representation, Market Capitalization, Community and Product Strengths
6/30/2000	Bell Atlantic Corporation	Name change	Verizon Communications	name and ticker change
7/3/2000	Lexmark International Group, Inc.	Name change	Lexmark International, Inc.	Name change
7/5/2000	U S West, Inc.	Acquired by Qwest Communications International Inc.	Southern Union Company	Employee, Environment, & Other Strength
7/12/2000	Ben & Jerry's Homemade, Inc.	Acquired by Unilever	Stilwell Financial Inc.	Market Capitalization and Industry Representation
7/14/2000	Hannaford Bros. Co.	Acquired by Delhaize America	Pulte Corporation	Industry Representation
7/14/2000	Union Pacific Resources Group	Acquired by Anadarko Petroleum	AmSouth Bancorporation	Industry Representation, Market Capitalization, Diversity and Employee Strengths
7/27/2000	New Century Energies, Inc.	merger with Northern States Power (Nuclear)	Palm, Inc.	Market Capitalization, Spin-off from 3Com (a DSI company)
8/29/2000	Santa Fe Snyder Corporation	Acquired by Devon Energy Corporation	Devon Energy Corporation	Market Capitalization, Industry Representation
8/31/2000	Consolidated Papers, Inc.	Acquired by Stora Enso Oyj	Amgen Inc.	Market Capitalization, Industry Representation, Community and Product Strengths
9/1/2000	ReliaStar Financial Corp.	Acquired by ING Group (Dutch)	Advent Software, Inc.	Diversity and Employee Strengths
9/25/2000	United American Healthcare Corporation	Financial	Houghton Mifflin Company	Diversity Strengths
10/2/2000	Men's Wearhouse	Changed ticker from MENS to MW	Men's Wearhouse	Ticker change
10/2/2000	Bestfoods	Acquired by Unilever	MedImmune, Inc.	Market Capitalization, Industry Representation
10/17/2000	Mallinckrodt, Inc.	Acquired by Tyco International, Ltd.	Andrew Corporation	Industry Representation, Diversity Strength
10/30/2000	Tennant Company	Ticker change	Tennant Company	Ticker change
11/1/2000	Eastern Enterprises	Acquired by KeySpan Corporation	Kinder Morgan, Inc.	Diversity, Employee, Environment, and Other Strengths, Sector Representation
11/1/2000	Washington Gas Light Company	Name change	WGL Holdings	Name change
11/9/2000	Acuson Corporation	Acquired by Siemens AG	Mitchell Energy & Development Corp.	Employee and Environment Strengths, Industry Representation
11/21/2000	Fort James Corporation	Acquired by Georgia-Pacific Corporation	EOG Resources, Inc.	Market Capitalization, Industry Representation, Environment Strength
11/27/2000	HSB Group, Inc.	Acquired by American International Group, Inc.	Baxter International, Inc.	Market Capitalization, Sector Representation, Diversity & Employee Strengths

11/28/2000	Sunrise Medical Inc.	Going Private	Charter One Financial, Inc.	Market Capitalization, Industry Representation, and Divers
11/30/2000	PE Corp.-PE Biosystems Group	Name change	Applera Corp.-Applied Biosystems Group	name and ticker change
12/1/2000	Automatic Data Processing, Inc.	Ticker change	Automatic Data Processing, Inc.	ticker change
12/8/2000	LG&E Energy Corp.	Acquired by PowerGen plc	Franklin Resources, Inc.	Market Capitalization, Industry Representation
12/11/2000	ADAC Laboratories	Acquired by Dutch Phillips Electronics	Aon Corporation	Market Capitalization, Industry Representation
12/13/2000	Aetna, Inc.	Acquired by ING Group (Netherlands)	Hartford Financial Services Group	Market Capitalization, Sector Representation, and Diversity
12/15/2000	Catalytica, Incorporated	Acquired by DSM NV	Sapient Corporation	Industry Representation, Diversity and Employee Strengths
12/20/2000	Airborne Freight Corporation	Name change	Airborne, Inc.	Name change
12/29/2000	Morgan (J.P.) & Co. Incorporated	Acquired by Chase Manhattan Corporation	Chase Manhattan Corporation	Market Capitalization, Industry Representation, Community
12/29/2000	Chase Manhattan Corporation	Name change	Morgan (J.P.) Chase & Co.	name and ticker change
1/8/2001	Shaw Industries	Acquired by Berkshire Hathaway, Inc.	NiSource, Inc.	Market Capitalization, Sector Representation, Diversity and
1/11/2001	Echo Bay Mines Ltd.	Lack of Social and Financial Representation	Radio One, Inc.	Industry Representation, Diversity and Other Strengths
1/11/2001	America Online	Name change	AOL Time Warner Inc.	Name change
1/17/2001	Kaufman & Broad Home Corporation	Name change	KB Home	Name change
1/22/2001	Inprise Corporation	Name change	Borland Software Corporation	name and ticker change
1/29/2001	Whitman Corporation	Name change	PepsiAmericas, Inc.	name and ticker change
2/1/2001	Wal-Mart Stores, Inc.	International Labor Controversies (see KLD White Paper)	Minnesota Mining and Manufacturing Company	Industry Representation, Market Capitalization, Diversity,
2/1/2001	Moore Corporation	Lack of Social and Financial Representation	Moody's Corporation	Sector Representation, Market Capitalization, Diversity and
2/7/2001	El Paso Energy	Name change	El Paso Corporation	Name change
2/26/2001	U.S. Bancorp	Acquired by Firststar	GreenPoint Financial	Industry Representation, Community and Diversity Strength
2/26/2001	Firststar Corp.	Name change	U.S. Bancorp	name and ticker change
3/30/2001	Arbitron (i.e., Old Ceridian) (ARB)	Smaller of the two companies resulting from Old Ceridian Spin-off	Ceridian (i.e., New Ceridian)	Larger of the two companies resulting from Old Ceridian S
4/1/2001	Cummins Engine Company, Inc.	Name change	Cummins, Inc.	Name change
4/18/2001	Oxford Health Plans, Inc.	Ticker change	Oxford Health Plans, Inc.	Ticker change
5/11/2001	Federal Mogul Corporation	Lack of Social and Financial Representation	Visteon Corporation	Industry Representation, Diversity and Product Strengths
5/11/2001	Huffy Corporation	Lack of Social and Financial Representation	Emmis Communication Corporation	Employee Strength
5/31/2001	MCN Energy Group, Inc.	Acquired by DTE Energy Co.	State Street Corporation	Market Capitalization, Community, Diversity and Non-US
6/15/2001	Pulte Corporation	Name change	Pulte Homes, Inc.	Name change
6/22/2001	ALZA Corporation	Acquired by Johnson & Johnson	Imation Corporation	Diversity, Employee Relations, and Environment Strengths

7/6/2001	Houghton Mifflin Company	Acquired by Vivendi Universal SA	AT&T Wireless Services, Inc.	Spin-off from AT&T, a DSI Company
7/6/2001	Ryerson Tull, Inc.	Lack of Social and Financial Representation	Green Mountain Coffee, Inc.	Community and Non-US Operations Strengths
7/11/2001	Harcourt General, Inc.	Acquired by Reed International PLC	Lubrizol Corporation	Industry Representation and Environment Strengths
8/2/2001	Quaker Oats Company	Acquired by PepsiCo	Robert Half International	Diversity Strength and Market Capitalization
8/22/2001	Fedders Corporation	Lack of Social and Financial Representation	Noble Affiliates, Inc.	Industry Representation, Environment and Employee Relations Strengths
8/28/2001	Bergen Brunswig Corporation	Acquired by AmeriSource Health Corporation	Mirant Corporation	Market Capitalization, Industry Representation, Diversity and Employee Relations Strengths
8/29/2001	American General Corporation	Acquired by American International Group	Engelhard Corporation	Industry Representation and Environment Strength
8/30/2001	Wachovia Corporation	Acquired by First Union	Wachovia Corporation	Market Capitalization, Community, Diversity and Employee Relations Strengths
9/5/2001	Springs Industries	Going Private	Electronic Data Systems	Market Capitalization and Diversity Strengths
10/11/2001	Polaroid Corporation	Imminent Bankruptcy	Waters Corporation	Market Capitalization, Sector Representation, Diversity and Employee Relations Strengths
10/16/2001	Brown Shoe Company	Lack of Social and Financial Representation	Hain Celestial Group, Inc.	Environment Strength
10/16/2001	El Paso Corporation	Product, Environment, and Other Concerns	Masco Corporation	Market Capitalization and Industry Representation
11/2/2001	Venator Group, Inc.	Name change	Foot Locker, Inc.	Name change
11/29/2001	Enron Corporation	Lack of Social and Financial Representation	Madison Gas & Electric Company	Community, Diversity, Environment and Other Strengths
12/6/2001	Odwalla, Inc.	Being acquired by Coca-Cola Company	Zimmer Holdings, Inc.	Market Capitalization, Sector Diversification, and Diversity and Employee Relations Strengths
12/6/2001	Sanmina Corporation	Acquiring SCI Systems, a military weapons contractor	Rohm and Haas Company	Market Capitalization, Industry Diversification & Community and Employee Relations Strengths
12/12/2001	Ralston Purina Company	Acquired by Nestle SA	Harley-Davidson, Inc.	Market Capitalization and Employee Relations Strengths
1/4/2002	Dime Bancorp	Being acquired by Washington Mutual, Inc.	King Pharmaceuticals	Market Capitalization, Sector Representation, and Employee Relations Strengths
1/17/2002	Kmart Corporation	Lack of Social and Financial Representation	Family Dollar Stores, Inc.	Market Capitalization, Sector Representation, Product and Employee Relations Strengths
1/18/2002	Handleman Company	Lack of Social and Financial Representation	Bright Horizons Family Solutions, Inc.	Diversity, Employee Relations, and Other Strengths
1/18/2002	Ryan's Family Steakhouse, Inc.	Lack of Social and Financial Representation	Trex Company, Inc.	Environment and Other Strength
1/24/2002	Mitchell Energy & Development Corporation	Acquired by Devon Energy Corporation	Bank of America Corporation	Market Capitalization, Community, Diversity, Employee Relations and Environment Strengths
1/29/2002	Enesco Corporation	Lack of Social and Financial Representation	Biogen, Inc.	Market Capitalization, Sector Representation, Diversity and Employee Relations Strengths
1/29/2002	Westvaco Corporation	Merging with Mead Corporation	Cooper Cameron Corporation	Sector Representation
3/18/2002	The Sherwin-Williams Company	Environment and Product Safety Concerns	United Natural Foods, Inc.	Environment and Other Strengths
3/18/2002	Viacom, Inc.	AFL-CIO Boycott of BET Subsidiary and other concerns	Lincoln Electric Holdings, Inc.	Diversity and Employee Relations Strengths and Sector Representation
4/15/2002	Skyline Corporation	Lack of Social and Financial Representation	Rock-Tenn Company	Recycling Strength
5/3/2002	Compaq Computer Corporation	Being acquired by Hewlett-Packard	United Parcel Service, Inc.	Market Capitalization, Community and Diversity Strengths
6/10/2002	Service Corporation International	Product and Other Concerns	Invacare Corporation	Diversity Strength and Sector Representation
6/14/2002	Lands' End, Inc.	Being acquired by Sears, Roebuck and Company	C.R. Bard, Inc.	Sector Representation

7/22/2002	Torchmark Corporation	Diversity and Product Concerns	Safeway Inc.	Market Capitalization and Diversity Strength
8/12/2002	Madison Gas & Electric Company	Name change	MGE Energy, Inc.	Name change
8/27/2002	Avnet, Inc.	Military Weapons Contracting	Thermo Electron	Diversity, Employee Relations, Environment and Product S
8/27/2002	Great Atlantic and Pacific Tea Company	Lack of Social and Financial Representation	GAIAM, Inc.	Diversity and Environmant Strengths
9/3/2002	Consolidated Freightways Corporation	Bankruptcy	Invitrogen Corporation	Sector Representation and Diversity Strengths
10/1/2002	Computer Associates	Corporate Governance Concerns	eBay, Inc.	Market Capitalization, Diversity and Product Strengths
10/1/2002	Schering-Plough	Product Concerns	Bausch & Lomb Incorporated	Sector Representation and Diversity Strengths
10/1/2002	Donnelly Corporation	Acquired by Magna International, a Canadian Gambling company	Cathay Bancorp	Diversity Strengths
11/18/2002	Comcast Corporation	Liquidity and Voting Rights	Comcast Corporation	Liquidity and Voting Rights
12/5/2002	UAL Corporation	Imminent Bankruptcy	Plantronics, Inc.	Diversity and Employee Relations Strengths
12/13/2002	Hunt Corporation	Being acquired by Berwind Co. LLC	Pixar	Diversity, Employee Relations, and Product Strengths
12/23/2002	Household International, Inc.	Community Relations Concerns	Electronic Arts, Inc.	Market Capitalization, Diversity and Employee Relations S
1/2/2003	Stilwell Financial, Inc.	Name change	Janus Capital Group, Inc.	Name change
1/10/2003	American Water Works, Inc.	Acquired by RWE Aktiengesellschaft and Thames Water Aqua Holdings	CDW Computer Centers, Inc.	Market Capitalization, Sector Representation, Diversity and
2/26/2003	Crown Cork & Seal Company, Inc.	Name change	Crown Holdings, Inc.	Name change
2/27/2003	Osmonics, Inc.	Acquired by General Electric Company	Estee Lauder Companies, Inc., (The)	Market Capitalization, Board of Directors Strength
3/3/2003	H & R Block, Inc.	Marketing & Contracting Concerns, Investment Controversies	Allied Capital Corporation	Employee Relations & Product Strengths
3/3/2003	Watts Industries	Lack of Social and Financial Representation	Airgas, Inc.	Sector Representation
3/31/2003	Foot Locker, Inc.	Ticker Change from Z to FL	Foot Locker	Ticker Change from Z to FL
4/3/2003	Fleming Companies, Inc.	Bankruptcy	D.R. Horton, Inc	Market Capitalization, Sector Representation, Diversity Str
6/5/2003	Applera Corp. -Applied Biosystems Group	Lack of Social and Financial Representation/Tracking Stock	JetBlue Airways Corporation	Product Qaulity
6/13/2003	National Service Industries, Inc	Acquired by California Investment Fund, LLC	Cross Country Healthcare, Inc	Limited Compensation, Family Benefits, & Promotion
6/18/2003	CDW Computer Centers, Inc.	Name change	CDW Corporation	Name change
7/2/2003	Lillian Vernon Corporation	Acquired by Ripplewood Holdings LLC	Johnson Controls, Inc.	Market Capitalization, Sector Representation, Beneficial Pr
7/15/2003	Mirant Corporation	Bankruptcy	Valspar Corporation	Sector Representation
7/22/2003	Dell Computer Corporation	Name change	Dell Inc.	Name change
7/24/2003	AstroPower, Inc.	Delisted from Nasdaq	Valassis Communications, Inc.	Family Benefits, Promotion, Cash Profit Sharing and Empl

8/15/2003	Airborne, Inc.	Acquired by Deutsche Post AG	Coherent, Inc.	Gay & Lesbian Policies, Promotion, Cash Profit Sharing, R
9/15/2003	NorthWestern Corporation	Bankruptcy	Wausau-Mosinee Paper Corporation	Sector Representation, Environment: Other Strength
9/25/2003	Quintiles Transnational Corp.	The company is going private	Synovis Life Technologies, Inc.	Limited Compensation, CEO, Promotion, Sector Represent
10/16/2003	AOL Time Warner, Inc.	Name change	Time Warner, Inc.	Name change
10/29/2003	Palm, Inc.	Name change	palmOne, Inc.	Name change
11/6/2003	Cathay Bancorp, Inc.	Name change	Cathay General Bancorp, Inc.	Name change
11/12/2003	Biogen, Inc.	In November 2003, the company was acquired by IDEC Pharmaceuticals Corporation	Biogen Idec Inc.	Market Capitalization, Sector Representation, and Emplo
12/10/2003	Cummins, Inc.	Ticker change	Cummins, Inc.	Ticker change
12/11/2003	Roadway Corporation	Being acquired by Yellow Corporation	Entegris, Inc.	Beneficial Products & Services strength
12/23/2003	Stillwater Mining Company	Ownership Concern	Red Hat, Inc.	R&D/Innovation Strength
1/2/2004	Horizon Organic Holding Corporation	Being acquired by Dean Foods	Ambac Financial Group, Inc.	Market Capitalization, Employee Involvement, & Benefits
2/24/2004	Dillard's, Inc.	Diversity Concerns	Kadant Inc.	Sector Representation, Limited Compensation & Beneficia
3/5/2004	Cintas Corporation	Union Relations Concern	The E.W. Scripps Company	Market Capitalization, Charitable Giving & Quality Streng
3/31/2004	Bank of America Corporation	Marketing/Contracting Concerns	Genzyme Corporation	Market Capitalization, Support for Education, Gay & Lesb