Corporate Environmentalism: Doing Well by Being Green

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Abstract

Many firms go reduce their impact on the environment more than is legally required – that is, they 'overcomply' with environmental regulations. There is clearly a cost to this, so there has to be a benefit too. I suggest that firms are consciously internalizing external costs, with a view to reducing the potential for conflict between themselves and other groups in society. The avoidance of such conflicts can pay off in the long-run in terms of stock market valuation, relations with regulators and consumer perception of the company's products.

Key words: corporate social responsibility, external effects, corporate environmentalism.

JEL categories: H 890, M 200, Q 200, Q500,

Introduction

Corporations are often, and quite justifiably, accused of harming the environment. Many of their production processes and products do degrade the environment. Yet a certain number of corporations, probably an increasing number, go considerably beyond what is required of them legally in minimizing their environmental impact. They meet legal limits on environmental impacts and then go beyond these. This can be called "over-compliance,"[2] a descriptive if not elegant phrase designating going well beyond what is required by laws and regulations in force. Very visible examples are BP, H.J. Starbucks, Heinz and the banks that have adopted the Equator Principles.[3] In 1997, before the Kyoto Protocol was signed, John Browne, then the CEO of BP, publicly recognized the reality of climate change and the contribution of fossil fuels, and pledged to reduce BP's emissions of greenhouse gases 10% below 1990 levels by 2010. BP met its targets early, and clearly deployed considerable managerial resources in doing so. Interestingly,

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[2] See Reinhardt 1999. Reinhardt uses the phrase "beyond compliance" which I have modified to over-compliance.

[3] A listing is available at www.equator-principles.com

BP claims to have made money from this over-compliance, to the tune of $630 million, mainly through capturing and selling rather than flaring the gases associated with oil fields.[4] Starbucks operates in a very different business, and has also found over-compliance to be worthwhile. Growing coffee on plantations usually requires cutting tropical forests, while the alternative of shade-grown coffee allows the growers to maintain a good fraction of the original forest cover and associated biodiversity. Yielding less per acre, it is a more costly though more environmentally benign way of producing coffee. Starbucks has promoted the sale of shade-grown coffee, and in conjunction with the NGO Conservation International worked with coffee growers to teach then how to produce high quality coffee with low environmental impact. There was clearly no legal obligation on Starbucks to do this.[5] In 1990 Heinz encountered criticism for selling tuna caught in a way that killed dolphins, and chose in response to source its tuna in a more expensive but dolphin-friendly way.[6] Again there was clearly no legal pressure to take this action, and no possibility of such pressure. In 2003 a group of large international banks – Citibank, ABN Amro, Barclays, WestLB and others - agreed to make project finance loans only on projects that meet quite strict social and environmental standards, standards laid out initially by the World Bank and the International Finance Corporation. They require borrowers to have an independent environmental impact assessment of the proposed project, and to agree to an environmental management plan. Failure to comply with this can be seen as a default on the terms of the loan and can lead to the termination of the loan.[7] There are many similar examples,[8] but these suffice to make the point that over-compliance on environmental and social issues is a real phenomenon consuming significant resources at large corporations.

Why do corporations over-comply, going beyond what is legally required of them? The explanation I shall advance here is that they do this to internalize external effects, something that they find in their long-term interests because it reduces the sources of conflicts between them and society. The key point concerns the alignment of

[4] This number is given in a speech by Lord John Browne, CEO of BP, at Stanford University. The text is at http://www.bp.com/genericarticle.do?categoryId=98&contentId=7032698
[5] See Austin and Reavis 2002.
[6] See Reinhardt and Vietor.
[7] See Heal 2007.
[8] See Heal 2005.

corporate and social interests. When there are external effects, the interests of corporations and of society are not aligned: maximizing profits does not lead to the social good. In contrast in the ideal world of economic theory, with no market failures, maximizing profits leads the economy to a Pareto efficient outcome, which is assumed (indeed defined) to be good for society. A Chief Executive of General Motors, "Engine" Charley Wilson, once said that "What's good for General Motors, is good for America." In a world without market failure, he would have been correct. In the world we live in, he was not, the principal reason being the differences between the private and social costs of making and using automobiles. But by reducing these differences, a company can bring private and social goals into closer alignment. Non-alignment can lead to conflicts with society, often costly and damaging to the corporation. Conflicts can lead to actions against a company by non-governmental organizations, to law suits, to regulatory intervention, and to loss of brand image and corporate reputation. On the other hand, a reputation for being environmentally considerate can enhance a company's image in the eyes of consumers and improve its relations with regulators. It was actions against Citigroup by a non-governmental organization that led to the Equator Principles: Citi was criticized for allegedly making loans on projects that led to deforestation, and the Rainforest Alliance carried out an aggressive campaign trying to persuade customers to end their banking relationships with Citibank because of this – a clear illustration of a private-social cost differential leading to conflicts with potentially costly consequences to Citigroup. Something similar happened with Heinz: they were criticized by environmentalists and then the general public for supporting fishing methods that harmed dolphins, an external effect once again, and chose to adopt instead fishing methods that are "dolphin friendly" and produce no such externality. Interestingly, both BP and Starbucks acted without outside pressures from environmental groups or the public: both acted to forestall such intervention and boost their public images by internalizing externalities, and have built on these moves extensively in their subsequent promotion campaigns.

Capital Markets and Externalities

Reducing external effects is not just a matter of improving a firm's image with consumers, but can also affect its market valuation. There is a growing body of empirical evidence that stock markets dislike companies with negative environmental records. The first study to document this was Hamilton's in 1995:[9] he conducted an event study of the first ever release of the U.S. Environmental Protection Agency's (EPA) Toxics Release Inventory (TRI). This is a detailed listing of the emissions of certain toxic chemicals by manufacturing establishments meeting (fairly minimal) size restrictions, and since 1987 has been compiled and made publicly available annually as part of the E.P.A.'s "name and shame" campaign to reduce pollution that is not illegal. Hamilton found that featuring on this list had a significant negative impact on share prices, and that the larger the emissions, the more the impact. Subsequent studies have confirmed this effect and found similar effects in other countries.[10]

A recent report by analysts of Union Bank of Switzerland (UBS), apparently unaware of the studies by Hamilton and others, provides an explanation for this reaction on the part of capital markets. In a recent report on corporate social responsibility,[11] it comments on the connection between social and environmental behavior and the reduction of liabilities, noting that "If a firm or industry 'externalises' costs, the affected stakeholder is very rarely given the opportunity to agree the transfer of costs, and so the 'price' (perhaps very small in the eyes of the firm but very large in the eyes of other stakeholders) is not negotiated at the time when costs are externalised. The danger to firms is that, if the balance of power between stakeholders changes, the price of the exchange may be renegotiated at a future date, and sometimes, but not always, in a court of law." They are arguing here that externalization of costs will generally produce a potential liability to the externalizing company, implying that reducing external costs is a mechanism for reducing potential liabilities. Developing this point further, UBS go on to comment that "The US Environmental Protection Agency (EPA) has devised a useful definition of a potential environmental liability, which we have adapted here to cover the broader concept of corporate social liability:

[9] See Hamilton 1995.
[10] See Dasgupta, Hong, Laplante and Mamingi 2004 and 2001.
[11] UBS Investment Research. Q-Series: Corporate Social Responsibilities, Julie Hudson and Shirley Knott, 11 April 2005, www.ubs.com/investmentresearch

■ A corporate social liability is an obligation to make a future expenditure due to past or ongoing manufacturing or other commercial activity, which adversely affects any aspect of the environment, the economy, or society.

■ A *potential* corporate social liability is a *potential* obligation to make a future expenditure due to past or ongoing manufacturing or other commercial activity, which adversely affects any aspect of the environment, the economy, or society.

■ A 'potential corporate social liability' differs from a 'corporate social liability' because an organisation may have an opportunity to prevent the liability from occurring by altering its own practices or adopting new practices in order to avoid or reduce adverse environmental, economic or social impacts".

UBS goes on to argue that corporate balance sheets should carry warnings about potential corporate social liabilities, and that valuation exercises by stock market analysts should take these liabilities into account. In this they are close to a recommendation of the U.K. government, which in a White Paper "Modernising Company Law" published in July 2001 proposed that each company publish every year an Operating and Financial Review (OFR) analyzing and discussing the main factors and trends affecting the company's performance. These would include any social and environmental factors that might affect the shareholders' evaluation of the company's prospects.

Other studies confirm a relationship between environmental performance and financial valuation. Konar and Cohen[12] look at the relationship between market-to-book and a range of environmental factors, including TRI data and environmentally-based law suits against a company. After allowing for the effects of a broad range of control variables, they find a negative relationship between poor environmental performance and market-to-book, the ratio of the stock market value of the company to the cost of its tangible assets. A rather different class of studies of the connection between social, environmental and financial performance is represented by that of Dowell Hart and Yeung (DHY).[13] Again using the market-to-book ratio as a dependent variable, they found a positive correlation between this and environmental performance. Their study is restricted to US manufacturing companies that are in the S&P 500 and that operate both

[12] See Konar and Cohen 2001.
[13] See Dowell Hart and Yeung 2000.

in the U.S. and in middle-income developing countries.[14] For the study the authors divided the firms into three categories according their environmental policies. In one category were those operating a uniform worldwide standard above that required in the US (global overcompliance). In a second category were those operating at US environmental standards world wide even if this involves exceeding legally-required standards outside the US (overcompliance again), and in a final group those adopting standards lower than the US in countries where this is permitted (no overcompliance). Clearly the first group has the highest environmental standards, and is setting its own worldwide standards above those of the U.S., which in areas other than greenhouse gas and vehicle emissions are generally the highest. The second group, operating globally at U.S. standards, has the next highest performance and the third group, which is taking advantage of lax local laws in some countries, has the lowest. It is this measure of environmental performance – membership of one of these three groups - that DHY find to be correlated with the ratio of stock market value to the cost of tangible assets. Firms in the first group have higher market-to-book ratios than those in the second, whose market-to-book ratios are in turn on average higher than those of firms in the third group.

The DHY study was pioneering and has justly been the focus of much attention. However, it is important to note that their measure of environmental performance is self-reported and is not independently audited: companies were asked to state which of the three categories they fell into and this statement was not checked. And of course there is the standard comment that correlation does not imply causation, so that the correlations between market-to-book and environmental performance in all of these studies could arise from one or more other factors that are causing both. This is why the event studies of the relationship between stock price movement and the release of information about environmental performance are significant: they can cut through this ambiguity. In spite of these limitations the papers looking at market-to-book raise interesting questions and are a step forward in connecting one aspect of environmental performance with capital markets and financial performance. One particularly thought-provoking comment by DHY is that capital market valuations internalize externalities – that is, the capital

[14] Middle income developing countries are a category defined by the World Bank and consist of those countries with income levels between

markets recognize difference between private and social costs and treat the excess of social over private as a liability that the corporation will have to meet at some point.[15] This is completely consistent with the findings from the event studies and with the interpretation of assuming social and environmental obligations suggested here.

Fisman Heal and Nair[16] use a rather different set of data. A number of companies make their livings by selling ratings of corporations by their social and environmental performance. One of these is KLD Research and Analytics of Boston. Using data from KLD, Fisman Heal and Nair (FHN) construct three different measures of social performance, one environmental, one related to the treatment of employees and one based on relationships with the community in which the company operates. The environmental measure reflects pollution, energy use, waste generated and a range of other activities with environmental impacts. The employee-oriented measure reflects relations with unions, gender and race diversity in the labor force, employee law suits, wage levels and other measures of the treatment of employees. The community measures are based on various measures of giving to the community, support of low-cost housing, and support of educational and cultural objectives. One interesting fact to emerge from this distinction between the different measures of social performance is that firms that rate highly for one type do not necessarily rate highly for others, and indeed in general do not. As we look across different firms we see little correlation between their three scores. Some firms are rated highly on the environmental measure, others on the community measure and others provide superior treatment of their employees. Few are good at all, and some are good at none.

FHN focus mainly on the community measure, as prior studies have dealt comprehensively with the environmental dimension. We find a correlation between community-oriented performance and market-to-book ratios, even after allowing for differences between firm sizes and for differences between industries. We also conclude that this is more important financially for companies that advertise heavily, suggesting

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[15] Interestingly, this is exactly how financial analysts assessed the appropriateness of the drop in Merck's share price after the withdrawal of Vioxx – they calculated the loss of profits and then also the legal liability to which Merck was exposed because of the costs possibly imposed on the users of its product Vioxx.

[16] See Fisman Heal and Nair 2007.

that social performance matters financially most to companies to whom image and visibility are important. We also infer tentatively that the level of social performance relative to other firms in the same industry is more important than the level on its own. This, like the result on advertising and social performance, suggests that consumer are evaluating firms according to their social performance and choosing those with stronger positions. Our finding here is similar to a finding of King and Lennox[17] that a firm's environmental performance relative to the rest of its industry matters for its financial performance. This result is tentative, but is important, as an understanding of how consumers react is of critical importance to firms considering their social policies. When asking what kinds of firms tend to rate highly for social performance, we again find that advertising expenditure is an important variable: firms that spend more on marketing tend to rate higher. This is consistent with the idea that social performance matters for firms for which image and brand reputation are important variables.

The Impact of SRI Funds

The rapid growth of Socially Responsible Investment (SRI) Funds is an interesting aspect of recent capital market history. The aim of SRI investors is, in some general sense, to use their power in capital markets to do good. And they hope to do well financially in the process. Whether they do, is a controversial matter, and not our concern here.[18] Our concern here is with what their impact has been, and whether they have in fact had a positive influence for the causes that they seek to support with their investment strategies. There are three strands of SRI – screened investment, shareholder activism and community investment – and the answers are rather different for each. Puzzlingly, although there is a plethora of studies of the return to screened SRI funds, there is a paucity of studies of their impact. Researchers have either not been interested in whether they have attained their social and environmental goals, or have not seen how to check this. In fact the latter is likely to be the case: it is not easy to see how to check for the impact of SRI funds. By avoiding the shares of certain companies they are shifting demand away from these, and to the extent that share prices depend on supply and demand this may lead to lower prices. Lower share prices will concern managers, partly

[17] See King and Lennox 2001.
[18] For a review of this literature see Heal 2008.

because they are themselves shareholders, partly because other shareholders will be disturbed and may press for changes, and partly because lower share prices raise the cost of capital to a company. Lower share prices mean that more shares have to be sold to raise any given amount of capital, so that more of the company has to be sold to reach given capital goals. However, it is not obvious that by avoiding certain companies SRI funds will in fact reduce their stock prices. If stock prices depend on expected future earnings, a widely-accepted theory of stock prices in the long run, then the fact that SRI funds avoid a company will not affect its stock price, as expected future earnings will not be affected by the funds' behavior. A drop in a price to below expected future earnings because of selling by an SRI fund will just provide an attractive buying opportunity for others in the market. This is not to deny that information about its CSR performance may affect the market's expectations of a company's future earnings.

The studies discussed above have some bearing on this issue. We noted that a company's market-to-book ratio is correlated with its social and environmental ratings, discussing various explanations of why this might be, including the effects of positive environmental and social behavior on a company's performance. In fact there is another explanation: if a company's market value is correlated with its social and environmental ratings, this could reflect the fact that SRI funds, guided by the SRI ratings, are demanding its shares and inflating its market value. Rather than social and environmental performance raising valuations, it may be that CSR rating acts as a buy signal for SRI funds and raises valuations. So the results we have already seen are consistent with the idea that SRI funds are lowering the cost of capital to highly-rated companies, although they certainly do not prove this. In fact if this were the case it would imply that SRI funds are paying above average for their shares and would probably imply lower returns for them in the long run, which does not seem to be the case.

The behavior of companies with respect to social and environmental indices such as the Dow-Jones Sustainability Index (http://www.sustainability-indexes.com/) and the Financial Times' FTSE4GOOD (http://www.ftse.com/ftse4good/index.jsp) provides interesting if rather casual data on this point from a different perspective. Both indices are claiming to rate companies according to their attainments in the social and environmental area, broadly interpreted, and both are widely-known and very visible, given the families of which they are part. In my experience, many large corporations have been willing to incur significant costs to ensure that they are well-placed on these indices. Presumably this implies that their senior executives see benefits in a clear public recognition of their stature in the social and environmental fields, and when I have spoken with them they have generally explained this in terms of a better position in capital markets and better access to capital, though none have cited hard evidence to support this idea.

There is an interesting recent study that bears directly on the issue of whether SRI funds have an impact on stock prices, suggesting that they do. This paper, appropriately named "The Price of Sin: The Effects of Social Norms on Markets," studies the prices of the "sin stocks" that almost every SRI fund avoids.[19] These are stocks in companies that produce alcoholic drinks or tobacco products, or are active in gambling. Alcohol, tobacco and gambling are activities that most SRI funds screen against, so if SRI funds have an impact on share prices then it is likely to be visible in the prices of these stocks. In particular an interesting hypothesis is that if SRI funds are influential then they will tend to depress the prices of sin stocks, so the prices of such stocks will be less than would be expected on the basis of the company's financial performance.

An alternative hypothesis is that their boycotting these stocks will have no effect: to the extent that SRI funds depress the prices of sin stocks then other funds that do not operate ethical screens will find sin stocks attractive buys and will buy enough to bring the price up to the level that their profitability indicates. In other words, the boycotting of these stocks by SRI funds will create arbitrage opportunities for other funds.

Yet another possibility is that the market sees sin stocks as more risky than the average because of the risk of litigation: this has certainly been a factor for tobacco firms in the last two decades. Perceived riskiness will lower a stock's price. The authors, Hong and Kacperczyk (HK), check all of these ideas carefully. Specifically, HK test the following hypotheses: that fewer institutional investors hold sin stocks than other comparable stocks, that fewer analysts cover such stocks than comparable stocks, that the market values of sin stocks are lower than should be expected from their financial

[19] See Hong and Kacperczyk 2007.

characteristics, and that companies whose stocks are sin stocks rely more on debt financing than comparable companies. Their data set supports all of these suggestions.

The number of institutional investors holding sin stocks is less than the average, as is the number of analysts who report on such stocks. So they form a relatively neglected part of the market. HK's findings on the pricing of sin stocks are particularly interesting. Sin stocks behave like value stocks – that is, stocks that are under-appreciated and undervalued by the stock market. Stocks that are undervalued often perform well as they tend to catch up to the rest of the market, and this is what HK find for sin stocks. Their prices are low but the total return to holding them is above average. This is good for investors but of course bad for the issuers, and as a consequence companies in the sin businesses tend to raise less money on the stock market and more on the debt market than comparable companies: they are in financial terms more highly leveraged with a higher debt to equity ratio. The authors also try to understand why sin stocks offer a higher return than others. One possible explanation is that they are seen as more risky, because of the chance of product liability litigation. Stocks that are more risky than the average have to offer a higher return than the average to find buyers. Another explanation is that sin stocks are undervalued just because they are overlooked: some investors are not interested and relatively few analysts cover them. HK decide in favor of the latter explanation. In this they are guided by the fact that after the tobacco settlements of the late 1990s tobacco companies were not at risk for further litigation, as claims against them were settled, yet this did not change their market behavior.

The HK study is the first to give a clear answer to the question: do SRI funds matter? The answer is a limited yes. We still do not know if the prices of "good" stocks are helped by the activities of SRI funds, though we do know that being green helps a company's stock prices – but not necessarily because of the actions of SRI funds. But we do now know that SRI funds have a far-reaching effect on the issuers of sin stocks, affecting their stock prices, who owns them, who follows them and the companies' financial structures. So even if they do not help firms that "do good," SRI funds may punish the sinners.

When it comes to shareholder activism, matters are much clearer. Corporate law in the US, and indeed in most countries, allows shareholders with a minimal stake in a company ($2,000 in the US) to place items on the agenda of a shareholder meeting, to place a 500 word supporting statement in proxy statement distributed before the meeting, and to require that a vote be taken on these matters at meeting (the vote is not binding on the company). This is a powerful mechanism for embarrassing management about alleged ethical failures. The annual meetings of large corporations receive wide press coverage and these critical resolutions produce negative publicity, possibly leading to boycotts and diminished retail sales. Shareholder advocacy has been used by large institutional investors, such as the CaLPERS and the College Retirement Equities Fund (CREF) in the U.S., as a route to more open corporate governance. Large investors have tried to influence corporate policies on such matters as chief executive succession, board membership and poison pills, although their success rate is not clear.[20] A small fraction of the resolutions submitted lead to the adoption of the recommended policy by the target corporation, although this statistic could be misleading because in some cases, whose number is not known, the institutional investor will approach the corporation before submitting a resolution to see if an agreement can be reached without public debate. There is evidence that the largest institutions have a higher success rate in these non-confrontational approaches than they do through formal resolutions, perhaps not surprising given the that formal resolutions will often be submitted only after lower-key approaches have been tried and have failed. Two informational intermediaries play an interesting role in the process of voting on shareholder resolutions, Institutional Shareholder Services (ISS) and the Investor Responsibility Research Center (IRRC).[21] These groups research the issues that arise in shareholder resolutions and make recommendations to institutional shareholders on how to vote. Their recommendations have been influential with institutional investors, and both have been paying more attention to issues relating to corporate social responsibility in recent years.

[20] See Black 1998 and Gillan and Starks 1998.
[21] ISS recently purchased IRRC.

Ethical investors can and do use this same route. According to a report by the Interfaith Center on Corporate Responsibility, in 1999 SRI managers filed about 220 shareholder resolutions with more than 150 U.S. companies. The largest number covered environmental issues, with equity and corporate responsibility taking the next two places. Most of these resolutions are not passed by the shareholders – and even if they were, they would not be binding on the corporation. But the aim is not to pass resolutions: it is to get an issue on the agenda of the Board of Directors, and to start the company thinking about it. The proponents of the resolution see this as the start of a dialogue that may last years before it is productive, although there have been occasions on which shareholder activists find themselves knocking on an open door. A notable case of this type was the decision in 2003 by Home Depot, a major U.S. Do-It-Yourself outlet, to stop buying mature wood from endangered forests. In this case, shareholder activism was accompanied by a consumer boycott organized by rainforest-related NGOs.[22] Baxter International, a maker of health care products, also agreed to stop using polyvinyl chloride in some of its products. PVC releases carcinogens when it is burnt.[23] Chevron and Exxon are facing similar actions by environmental NGOs intended to force them to abandon plans to drill in the Alaskan Arctic wildlife refuge. Another interesting achievement of shareholder activism can be seen in a project run jointly by two major brand names, Disney and McDonald. McDonald's has exclusive restaurant industry marketing rights to Disney properties, including film, home video, theme parks and television, so that the two are in effect running a joint venture in the manufacture of Disney items for sale in McDonalds' branches. At the instigation of several faith-based investment funds that are shareholders in both groups, and in collaboration with these groups, the two companies are investing considerable effort and resources in monitoring the labor conditions under which these products are made. This is not an easy undertaking: many companies have gone public with the problems they have encountered with ensuring compliance with labor standards in China. In this process they have enlisted the help of Chinese groups that are also concerned about labor standards.

[22] See http://www.fscus.org/news/archive.php?article=276& accessed on August 24, 2007.

[23] See Baxter to Quit Manufacturing Intravenous Bags Made from PVC. (Baxter International) Chemical Market Reporter, April, 1999

In summary, capital markets value environmental performance enough for this to be a factor that matters to corporate management. It is not completely clear why: this may reflect a concern for legal liability issues, a concern that pollution will provoke a regulatory response, a belief that consumers value environmental reputation, or just a belief that managers who handle complex environmental problems well are probably good managers overall. In addition to this general tendency of capital markets to value environmental performance, there is some evidence that SRI funds penalize companies of which they strongly disapprove. And shareholder activists may target the management of companies with bad environmental records with controversial resolutions at the Annual General Meetings, something that many executives will be happy to avoid.

Consumer Responses to Environmental Issues

Consumer responses to a company's environmental and social stances can affect their purchasing choices. A very elegant illustration of this was provided by an experiment organized by Hiscock and Smyth at the ABC Department Store in Manhattan. ABC is a rather up-market department store in Manhattan, itself an upscale location, so that this experiment does not necessarily speak for the behavior of the general consuming public. Nevertheless it is thought-provoking. The experimenters found two competing ranges of towels, both made in developing countries of organic cotton and under fair trade conditions. Both were therefore exemplary from social and environmental perspectives, but neither was initially labeled so in the store. The experimenters first labeled one set of towels to indicate its social and environmental credentials, and noted the effects on sales. They were dramatic: sales of the labeled brand rose over those of their competitors. Relative sales of the labeled brand were even higher when the prices of the labeled items were increased by 10%, and higher again when prices were raised as much as 20%. Clearly consumers were voting with their dollars for products with a positive social and environmental angle. This conclusion is reinforced by a subsequent rerun of the experiment: after the first round all labels were removed and the towels were left unlabeled as initially. After a few months the experiment was reversed – the previously unlabeled towels were now labeled as organic and fair trade while the others remained in anonymity. Again sales of the labeled towels took off. A similar experiment was conducted for candles, with very similar results.

So there clearly are consumers who judge products partly by their social and environmental credentials, which can therefore be an aid in marketing these products. The experience of the outdoor clothing brand Patagonia in introducing organic cotton, which necessitated a price rise, confirms this: they found no loss of sales in response to a carefully-explained replacement of regular by organic cotton and a simultaneous price rise of about 10%.[24] These findings are consistent with the Fisman-Heal-Nair findings mentioned above, which indicate that socially responsible behavior can help the valuation of companies that spend heavily on promotion and for which image presumably matters. Indeed it may be behind some of the findings that environmentally responsible behavior is correlated with high market-to-book ratios.

Unfortunately consumers are rarely well-informed about the environmental characteristics of the products available to them, so this chain of thinking suggests a possible role for better information in this field. Clearly good companies have every incentive to represent themselves as such, but of course bad ones have an incentive to misrepresent themselves, and consumers do not have any obvious way of discriminating. It is possible that some aspects of social or environmental behavior can emerge as signals that discriminate between the genuine and the "green-washers," as suggested by Milgrom and Roberts (1986), Lyon and Maxwell (2006) and Fisman-Heal-Nair, but there is clearly a role for third party certification systems, which, interestingly, have begun the emerge. The Forest Stewardship Council (FSC) and Marine Stewardship Council (MSC) are third-party independent agencies that certify that wood or fish respectively are sustainably harvested. Until very recently they had little leverage, but within the last year some high-profile corporations have adopted them and will make them more widely known. For example, Wal-Mart recently announced that within five years it would sell fish only if certified as sustainably caught by the MSC. As Wal-Mart is the largest fish retailer in the U.S.A., this is a significant step and will give the MSC additional

[24] For details see Casadesus-Masanell et al. 2006 and Reinhardt 2003 and 2005.

significance. Unilever, one of the largest vendors of fish products, has already committed to using only MSC-certified products.

Conclusions

Corporations often go beyond what is legally required when it comes to protecting the environment. There are many well-documented cases in which they are clearly incurring significant costs to do this. Such behavior requires an explanation. My suggestion is that they find it in their own long-term interests to reduce the potential for conflicts between themselves and the rest of society, and seek to do this *inter alia* by reducing external effects, the classical purveyors of environmental damage. In so doing they may be rewarded by the stock market, which seems averse to companies with bad environmental records. As part of this phenomenon, they may avoid the attentions of socially responsible investors, whose boycotting of stocks seems capable of producing undervaluation, and also avoid the attention of shareholder activists. They may also be rewarded by consumers, who are clearly in some cases willing to pay extra for products whose social and environmental credentials are clear to them.

References

Austin, James E. and Cate Reavis, 'Starbucks and Conservation International,' Harvard Business School Case 9-303-055, October 2002.

Black, Bernard S. 'Shareholder Activism and Corporate Governance in the United States,' in Peter Newman (ed) *The New Palgrave Dictionary of Economics and the Law* (1998)

Casadesus-Masanell, Ramon, Michael Crooke, Forest Reinhardt, and Vishal Vasishth, 'Households' Willingness to Pay for Public Goods: Evidence from Patagonia's Introduction of Organic Cotton Sportswear,' Working Paper, Harvard Business School 2005.

Dasgupta, S., J.H. Hong, B. Laplante, and N. Mamingi, (2004) 'Disclosure of environmental violations and the stock market in the Republic of Korea', World Bank Policy Research working paper 3344, June 2004.

Dasgupta, S., B. Laplante, and N. Mamingi, (2001) 'Pollution and capital markets in developing countries', *Journal of Environmental Economics and Management* 42: 310–335.

Dowell, G., S. Hart, and B. Yeung, (2000) 'Do corporate global environmental standards create or destroy market value?' *Management Science* 46: 1059–1074.

Fisman, R., G.M. Heal and V. Nair, 'A Model of Corporate Philanthropy,' Columbia Business School Working Paper, 2007.

Gillan, Stuart L. and Laura T. Starks, ‘A Survey of Shareholder Activism: Motivation and Empirical Evidence’ in *Contemporary Finance Digest*, (Autumn 1998) 2, 3 10-34.

Hamilton, James T. ‘Pollution as News: Media and Stock Market Reactions to the Toxics Release Inventory Data’ *Journal of Environmental Economics and Management*, Volume 28, Issue 1, January 1995, Pages 98-113

Heal, Geoffrey, ‘Citibank and the Equator Principles,’ Columbia CaseWorks, forthcoming 2007.

Heal, Geoffrey, ‘Corporate Social Responsibility: An Economic and Financial Perspective,’ *The Geneva Papers on Risk and Insurance Issues and Practice*, 30, 387-409, 01 July 2005.

Heal, Geoffrey, 2008.

Hiscox, Michael J. and Nicholas F. B. Smyth, ‘Is There Consumer Demand for Improved Labor Standards?’ Evidence from Field Experiments in Social Labeling, Working Paper, Department of Government, Harvard University, no date.

Hong, Harrison, and Marcin Kacperczyk, 2007, ‘The price of sin: The effects of social norms on markets,’ working paper, Princeton University.

King, A.A. and Lennox, M.J. (2001) ‘Does it really pay to be green? An empirical study of firm environmental and financial performance’, *Journal of Industrial Ecology* 5(1).

Konar, S, M.A. Cohen. 2001. ‘Does the Market Value Environmental Performance?’ *Review of Economics and Statistics*. 83(2) 281-289.

Lyon, Thomas P. and John W. Maxwell ‘Greenwash: Corporate Environmental Disclosure under Threat of Audit,’ March 24, 2006, Working Paper, Ross School of Business, University of Michigan.

Milgrom, Paul and John Roberts, ‘Price and Advertising Signals of Product Quality,’ Journal of Political Economy, Vol. 94, No. 4. (Aug., 1986), pp. 796-821.

Reinhardt, Forest, ‘Market Failure and the Environmental Policies of Firms: Economic Rationales for ‘Beyond Compliance’ Behavior,’ *Journal of Industrial Ecology* Vol. 3, no., 1 (winter 1999), pp. 9-21

Reinhardt, Forest. “Patagonia,” Harvard Business School Case 9-703-035 (2003) [37pp.] and “Patagonia,” Harvard Business School Teaching Note 5-705-028 (2005) [21pp.]

Reinhardt, Forest, and Richard Vietor. ‘StarKist (A).’ Harvard Business School Case 794-128.