

Institutional Investment and Responsible Investing

Submitted by Paul Cox to the University of Exeter as a submission for the degree of Doctor of Philosophy in Finance, October 2009.

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I certify that all material in this submission which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

(Paul Cox)

Note on page numbers:

This submission comprises five published papers each with its own unique page numbers. An additional page number has been added at the bottom left of each page that shows the correct sequential page order of this submission.

Abstract

The four refereed journal articles and one government research report that form the core of this submission for a PhD represent my work in the subject area of institutional investment and responsible investing. The research, as a whole, has two major areas of focus.

One area of focus is the behaviour of institutional investors. The research first examines different types of institutional investor and their demand for the characteristics of social and environmental performance within their equity portfolios. The research next examines the fund managers that institutional investors appoint to manage their assets. Attention is paid to the different locations of fund management as well as the features that determine the degree of competition between fund managers. The research examines these different fund management settings and the demand for the characteristics of social and environmental performance within their equity portfolios. A further issue investigated is whether different types of institutional investor pay greater attention to responsible investment when investing domestically than overseas.

The second area of focus is the study of responsible investment based on grounded research methods. The main contributions are an assessment of how fund managers perceive that responsible investment achieves financial performance, the communication between fund managers and corporate directors for the purpose of responsible investment, the use of information and staff within responsible investment, and costs and charges associated with responsible investment.

Both areas have contributed to policy debates and development, and have prompted other researchers to publish and undertake fieldwork.

The commentary, which forms Part A of this submission, illustrates these features by reference to the five publications that are reproduced in their entirety in part B.

Acknowledgements

The collection of papers included in this submission represents research carried out whilst at the Universities of Bath and Exeter but published whilst at the University of Exeter. I am grateful to the many colleagues at both universities who have taken an interest in my work and contributed to the development of my research knowledge and understanding. They are too numerous to mention individually, but I wish to extend particular thanks to Andrew Millington and Steve Brammer. I would also like to acknowledge the collegiality and support of staff at the University of Exeter Business School, especially those within the Xfi building. Finally I would like to thank my wife Sarah for her patience and understanding throughout the preparation of this submission. I dedicate this work to her, Jasper and Emmanuel.

Institutional Investment and Responsible Investing

Contents	
Part A	
Doctoral Criteria	6
The Papers as a Coherent Whole	6
Independence of Study	7
Originality	8
Contributions & Implications of the Submission as an Entire Work	11
Contribution of Each Paper	17
Future Research	23
Bibliography	26
Part B	
Papers on Institutional investment and Responsible Investing	
Paul Cox, Steven Brammer and Andrew Millington, 2004. <i>An empirical examination of institutional investor preferences for corporate social performance</i> . Journal of Business Ethics, 52(1) pp 27-43.	30
Paul Cox, Steven Brammer and Andrew Millington, 2008. <i>Pension funds and corporate social performance: An empirical analysis</i> . Business & Society, 47(2) pp 213 - 241.	47
Paul Cox, Steven Brammer and Andrew Millington, 2007. <i>Pension fund manager tournaments and attitudes towards corporate characteristics</i> . Journal of Business Finance & Accounting, 34(7/8) pp 1307-1326.	77
Paul Cox and Marguerite Schneider, 2008. <i>Is US socially responsible investing global or local in perspective? A study of US pension plan investment in the UK</i> . Business & Society, OnlineFirst April 24.	97
Paul Cox, 2009. <i>Responsible investment in fund management: It works, but when?</i> Department For Work and Pensions Research Report. Accessed from the Internet at http://www.padeliveryauthority.org.uk/investment.asp .	135

PART A

For the purposes of this chapter the following notation is used.

Notation	Paper
Paper 1	Paul Cox, Steven Brammer and Andrew Millington, 2004, <i>An empirical examination of institutional investor preferences for corporate social performance</i> . Journal of Business Ethics, 52(1) pp 27-43.
Paper 2	Paul Cox, Steven Brammer and Andrew Millington, 2008, <i>Pension funds and corporate social performance: An empirical analysis</i> . Business & Society, 47(2) pp 213 - 241.
Paper 3	Paul Cox, Steven Brammer and Andrew Millington, 2007. <i>Pension fund manager tournaments and attitudes towards corporate characteristics</i> . Journal of Business Finance & Accounting, 34(7/8) pp 1307-1326.
Paper 4	Paul Cox and Marguerite Schneider, 2008. <i>Is US socially responsible investing global or local in perspective? A study of US pension plan investment in the UK</i> . Business & Society, OnlineFirst April 24.
Paper 5	Paul Cox, 2009. <i>Responsible investment in fund management: It works, but when?</i> Department For Work and Pensions Research Report. Accessed from the Internet at http://www.padeliveryauthority.org.uk/investment.asp .

Doctoral Criteria

This submission is a collection of five published papers. Four are refereed journal articles. The fifth is a published research report for the Department For Work and Pensions. All five papers were published during the five years from summer 2004 to summer 2009. During this period I have been lecturer in finance at the Business School, University of Exeter. The papers in this submission have been selected from a longer list of publications that represent my academic career to date at the Business School. The published papers selected are those that represent my work in the subject area of institutional investment and responsible investing.

My interest in institutional investment and responsible investing started in the 1990s when I was a fund manager. In 2001, I decided on a career change and started academic study of investment institutions and responsible investment on a full-time PhD programme at the University of Bath School of Management. In 2002, I transferred from MPhil to PhD status. In January 2004, I started as lecturer in finance at the Business School, the University of Exeter. This was prior to completing my PhD.

I have continued with this research and now have a collection of papers in this subject area all published during the past five years. The research, as a whole, makes a number of contributions to the subject area. It is therefore natural to select institutional investment and responsible investing as my PhD submission.

The Papers as a Coherent Whole

All five papers share the same subject area and intellectual development. This is most apparent amongst the four refereed journal articles. By design the four papers were intended to be a unified and coherent whole, with each paper building on the previous. Their design originates in the planning of my research as a full-time PhD candidate. Each draws on the same statistical model, dataset, sample, time period and methods. Each of the four involves

the same basic research inquiry. This is to estimate the demand for the characteristics of social and environmental performance in institutional equity portfolios. The fifth paper on responsible investment draws on a separate and more recent dataset. This took the form of interviews and surveys with 25 fund management firms between June and November 2007.

Independence of Study

This section describes the nature and extent of the independence of the overall study. I first describe the independence of study for the four refereed journal papers. I then describe the independence of study for paper 5.

The four refereed journal papers are publication outputs from my research as a supervised, full-time PhD candidate. The first 6 months of my enrolment on this full-time doctoral programme was spent reviewing literature, performing a gap analysis, drawing on contacts to obtain data, and arriving at a set of investigative research questions. This was a completely personal and independent endeavour.

I then moved on to working and marrying the datasets. This involved bringing together seven different databases at the company level and ensuring the integrity and reliability of the data. I designed the statistical models and performed the multiple regressions and supporting analysis. This took a further 12 months. During the statistical methods stage my two doctoral supervisors lent some support. They helped me to interpret the statistical outputs, for example around error terms, heteroscedasticity, significance and robustness. They helped in the specification of some of the variables, for example, whether a variable should be linear or logged. They also suggested various specifications for the regression equation, for example the choice of an ordinary least squares or censored model. I proceeded based on their advice, and undertook all work that arose from this advice.

At this stage, and based on the very positive results obtained from the empirical work, my supervisors and I agreed that there was merit in writing-up the results as a series of papers aimed at journals. This process took several years to complete. I wrote each of the paper drafts, including introduction, literature, hypotheses, methods, results, discussion, conclusion and abstract. During the writing process my two doctoral supervisors lent some support. They helped me to craft the literature reviews toward a journal style. As I took the papers through the revision process they also helped me interpret the reviewers suggestions as to revisions and publication.

Overall, the entire research endeavour was based on independent study but with periodic oversight and advice. My more mature age, professional experience, and good knowledge of the data meant I probably worked more independently than one might expect from a student and supervisor relationship within a typical UK doctoral programme in financial economics. The very large contribution that is my own work within the papers, certainly accounting for far more than 90% of the total effort, is reflected in my being the lead author of each paper even though my surname is not first alphabetically. In short, I was responsible for the very large majority of the four journal papers.

I am the sole author of the fifth paper. I determined the research question, performed the literature review, constructed the interview and survey questions, performed the interviews, analysed the results and wrote the paper from start to finish. The only support received was in transcribing the audio recorded interviews. The paper was reviewed by the Department For Work and Pensions and signed off by the Minister for Pensions.

Originality

I demonstrate originality within my work by drawing on three examples from the four refereed journal articles.

One originality was that my research applied an institutional share selection model to a UK context. The concept of an institutional share selection model is not new, and has been used by Badrinath, Gay and Kale (1989), Badrinath, Kale and Ryan (1996), Bushee (1998), Coffey and Fryxell (1991), Cready (1994), Del Guercio (1996), Eakins, Stansell and Buck (1998), Falkenstein (1996), Gompers and Metrick (2001), Graves and Waddock (1994), Hessel and Norman (1992), Johnson and Greening (1999) and O'Brien and Bhushan (1991). However, all this work is performed from a US perspective. My focus was the UK.

A second originality is that I disaggregated the concept of a firm's social and environmental performance into separate factors. Other researchers were starting to do the same but this was not established practice within research on responsible investment (Griffin and Mahon, 1997). I created separate variables for environment, workplace and community (philanthropic) performance as well as overall corporate social performance.

The third originality is my typology of institutional investors. Existing research using share selection models had only examined institutional investors at a relatively high level of aggregation. I created detailed clienteles for unit trusts (open-end mutual funds), investment trusts (closed-end mutual funds), charities, life insurance funds and pension funds. I created separate pension fund clienteles for universities, churches, charities, local authorities, labour unions, public sector and private sector funds, inhouse and externally managed pension funds and pension funds in which fund managers faced different levels of competition because they were in tournaments with one another.

The intention of these endeavours was to shed light on the behaviour of different types of institutional investor as well as the fund managers they appoint to manage their assets. Pension funds were a particularly useful vehicle to investigate such aspects because there are so many types.

I was able to create the investor clienteles due to the availability of a highly granular database that listed the beneficial ownership of all UK shares. There was not a database like this in the US. For example, the database showed that some 2,300 different pension funds held shares in FTSE AllShare companies. It listed the name, country of origin, appointed fund managers and the number of shares held in each UK company. Altogether, the database calculated that pension funds owned 16% of shares outstanding of FTSE AllShare companies. This figure fits well with that estimated by the National Statistics Office (National Statistics, 2007).

Incorporation of the originality within the research

I incorporated the originality highlighted above throughout the research methods. To take the example of Vodafone PLC, this involved me bringing together the percent of shares outstanding held by each class of institution in Vodafone, a measure of the social and environmental performance of Vodafone, and economic control variables. This procedure was repeated for almost 700 firms in the UK FTSE AllShare index.

For the econometric technique, the dependent variable was the percent of shares outstanding held by a class of institutional investor in each FTSE AllShare security. The principal independent variables were environment, workplace, community and overall corporate social performance. The other independent variables were economic controls that included firm size, profitability, leverage (debt), risk, beta (expected return), liquidity (trading volume), free float (percent of shares available) and information availability (news items).

A multiple regression was performed that estimated the relationship between the percent of shares held by a particular class of institutional investor in a particular firm and the firm's social and environmental performance. In this way the degree of ownership by a type of investor in a company was explained by the company's social and environmental performance, including the economic controls.

When the UK FTSE AllShare index constituent weights were entered into the model there was no statistical significance on the social and environmental performance variables. This was relevant because it meant that if statistical significance on the social and environment performance variables were found when looking at the various classes of institutional investor this would indicate that institutional investors were tilting their portfolio equity holdings either toward or away from these variables.

Contributions and Implications of the Submission as an Entire Work

The theme that is common to all the papers within this submission for a PhD is responsible investment. In 2001, when I began studying for a PhD, responsible investment was not as high profile as it is today. During the past 9 years, responsible investment has grown in importance in several ways.

There has been increasing interest in sustainable lifestyles, with several governments and jurisdictions making commitments to achieving sustainable development. These have helped to grow the market for sustainable and responsible products and services.

Companies have responded to increasing interest in sustainable lifestyles by providing better social and environmental reporting. In Europe, social and environmental reporting has been incorporated into corporate reporting and pension disclosure requirements. One example is the EU Accounts Modernisation Directive. This Directive requires certain companies domiciled in the EU to produce a Business Review. This needs to include narrative information and key performance indicators on matters of the environment, employees, social and community issues, including policies, effectiveness of policies, and the impact of the business on the environment. This development in reporting has assisted investors in adopting a responsible investment approach.

Recent trends in globalisation have increased the complexity of the environment that companies operate within, making knowledge of social and environmental factors fundamental to understanding risks and opportunities for investors. A responsible investment strategy tends to prioritise the impact of these interactions and factors on the potential value of a portfolio. Related to this, the 2006 Stern Review on the Economics of Climate Change has firmed-up demand for responsible investment by illustrating the impact that not pursuing responsible investment might have on companies and the global economy.

It is not only that responsible investment has grown in importance; it has also grown in breadth. In 2001, when I began studying for a PhD, responsible investment was not as linked with corporate governance as it is today. During the past 9 years research and practice have increasingly linked the environment, employees, society, and community to corporate governance. Whilst in 2001 it was natural to investigate the topics of environment, employees, society and community separate to corporate governance, this might require some justification if doing so starting today.

The developments above have made study of responsible investment in the first decade of the 21st century a lively, exciting and at times high profile activity. The papers within this submission have contributed both to this activity and to the growing importance of the subject area. The section below summarises further contributions and implications of this submission as an entire work. This is performed by grouping together and commenting on Papers 1 – 4, followed by commenting separately on Paper 5.

Papers 1 - 4

One overall contribution is the dataset constructed in order to produce papers 1 – 4. In 2002, I reviewed the literature in the area of institutional share selection. This revealed several potentially important accounting and market variables as determinants of institutional share selection. Previous research had not used all of these variables. This was a gap which was possible to

address within the timescale of PhD research and with significant focus at the data collection stage. I deliberately and carefully assembled a dataset from 7 different data sources. This included a share ownership database that had never been used in academic research. I was able to obtain all the data I needed by drawing on industry contacts that I had built-up as a result of my previous career as a fund manager. Marrying the seven data sources resulted in a final dataset that was both unique and capable of investigating a great many research questions around share ownership. The table below reports the data used within the models and how they appeared in the final dataset. The notes to the table explain the data in more detail.

The Data and Their Sources as Used in Papers 1 - 4

Variable	Ownership	Size	Profitability	Liquidity	Risk	Valuation	Visibility	Corporate Social Performance	Industries							
Definition	Proportion of Shares Held by Type of Institution	Value of Assets	Return on Assets	Free Float	Trading volume	Size of Trades	Leverage	Systematic Risk	Unsystematic Risk	Growth Value	News Stories	Community Environment	Workplace	Industry Dummies		
Source	Computershare Analytics	Datastream	Datastream	FTSE Exchange	London Stock Exchange	London Stock Exchange	Datastream	Barra	Barra	Barra	Barra	Reuters Factiva	EIRIS	EIRIS	EIRIS	FTSE
Use Within Model	Dependent Variable															
Company																
Abbey National	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Anglo American	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Arriva	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Astrazeneca	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

700 Companies

The table shows how a typical regression model would look for Papers 1 - 4. Seven databases were brought together to create the dataset presented above. The purpose served by each variable is noted in the row titled 'Variable'. The definition of each variable is noted in the row titled 'Definition'. The data source for each variable used is listed in the row titled 'Source'.

The dependent variable is the proportion of shares outstanding held by a class of institution in each company. The shareownership data was obtained from Computershare Analytics, now part of Thomson Financial. The number of shares held by a class of institution in each company was divided by the number of shares outstanding in each company. Data on shares outstanding were obtained from FTSE, along with Free Float and Industry codes.

The independent variables were drawn from six sources. The data sources were married and the data brought together within the dataset presented above. Unique identifiers were used to perform this, for example sedol and Cusip, as well as the company name. Actual data was obtained for around 700 companies in the FTSE AllShare.

A second overall contribution is the data themselves on share ownership. Academic research had not before used the share ownership database I had obtained. More significantly perhaps, academic research had not before empirically examined the determinants of share ownership within UK companies. The database I obtained was extensive, real time, and maintained and owned by the largest UK company registrar. The registrar in turn pulled its data from the London Stock Exchange, and so was of high quality. I was aware of the database through my previous career as a fund manager and obtained the database relatively easily. This put me in a position where I was able to investigate research questions around share ownership that had never before been asked. Papers 1 – 4 are therefore the first to study in detail the empirical determinants of share ownership of UK firms and to speak to this area within a UK context.

A third overall contribution concerns evidence on institutional investor incentives to consider social and environmental factors within share selection. Theory and evidence suggests that social and environmental factors are more likely to impact companies over the long term than the short term. For example, significant movements in prices for waste, landfill, pollution and carbon, or changes to government subsidies, taxes or legislation are each thought to be long-term drivers of value. By intentionally entering variables that proxy for the long term into the regression models, i.e. social and environmental corporate performance, papers 1 – 4 speak to how the location and structure of fund management contracts are more or less likely to yield long term investment or short term investment styles.

Paper 5

Although not directly aimed at an academic audience, this paper speaks to, and lends support to, academic research in the three following areas.

The first is support of the academic literature on direct communication between institutional shareholders and corporate directors. Communication

between institutional shareholders and corporate directors is rooted in the oversight entitlement of shareholders. An entitlement to monitor and oversee corporate management comes about because shareholders provide the permanent risk capital of a company and shoulder almost all of the idiosyncratic risk. In the event of bankruptcy the common shareholders have a low priority over a company's operating assets and receive a payout only after all creditors have first been paid. If there is nothing left the share price falls to zero and shareholders lose their entire investment. The Financial Reporting Council notes that in order for this monitoring and oversight model to be effective, a sufficient number of major shareholders need to take a long-term view and interact constructively with the companies in which they invest through dialogue and the use of voting and other rights (FRC, 2009). In contrast to this stylised model, both academic research and the results of Paper 5 find that institutional shareholders prefer to use meeting time with corporate directors to acquire information and intelligence for trading. Of particular relevance to this area of research is that Paper 5 confirms this result even for a sample of fund management firms that perform responsible investment. This result is relevant because one might expect a sample of responsible investment fund management firms to be precisely those most likely to take an interest in monitoring, oversight, transparency and accountability.

The second is support of the academic literature around voluntary corporate reporting. Accounting theory expects firms to make judgements about the appropriate quantity and quality of voluntary information to disclose. This is expected to be based on the costs and benefits of doing so and on decisions about whether to disclose in the Annual Report or outside it. Shareowners are an important user of annual reports and are typically expected to prefer more disclosure within the Annual Report. One reason for this is that the Annual Report is audited. A second reason is that in some jurisdictions shareholders have the opportunity to demonstrate satisfaction or otherwise with a company's disclosures in the Annual Report by voting to approve them. Paper 5 confirms a preference for information to be included within the Annual Report. Most of the sample fund managers wanted information contained in

dedicated social and environmental reports either to be migrated into the annual report or where there was good reason to keep it separate for companies to initiate a separate vote at the Annual General Meeting on the approval of the corporate responsibility report.

The third is that Paper 5 suggests certain governance related variables that may help future researchers investigate the determinants of the quantity and quality of responsible investment performed by fund managers. For example, Paper 5 finds that the closer responsible investment staff were to the investment committee and trading within the fund management firm, the more captured they appeared to be by conventional fund management thinking, the less decision taking discretion they had, the more junior and less experienced the staff, the less likely it was that board support existed for responsible investment and the lower the overall quantity and quality of responsible investment performed. This speaks to academic literatures in the fields of governance, internal control, power, complexity and barriers to performance within financial entities.

Contribution of Each Paper

The results of the papers have contributed to policy development. For example, results were extensively cited in the 2009 Personal Accounts Delivery Authority's Discussion Paper on Investment, and were also used to build the evidence base of the 2005 A New Pension Settlement for the Twenty-first Century: The Second Report of the Pensions Commission. Results have also contributed to academic work. Three examples of academic research that have cited and extended the work include:

1. Madhala Adam, A., and Shavit, T. 2008. *How can a ratings-based method for assessing corporate social responsibility (CSR) provide an incentive to firms excluded from socially responsible investment indices to invest in CSR?* Journal of Business Ethics, 82(4) pp 899-905.

2. Hallahana, T., and Faff, F. 2009. *Tournament behavior in Australian superannuation funds: A non-parametric analysis*. Global Finance Journal, 19(3) pp 307-322.
3. Toms, S., Anderson, K., and Salama, S. 2009. *Does community and environmental responsibility affect firm risk? Evidence from UK panel data 1994-2006*. University of York Management School Working Paper No 49, August.

The key contributions of each of the five papers are described below.

Paper 1

This paper was published in a special issue on responsible investment. The paper's focus was pension funds, life insurance funds, charities, unit trusts and investment trusts. The objective of the paper was to determine whether these classes of investor had different demand for the characteristics of social and environmental performance within their equity portfolios.

The relationship between the equity holdings of pension funds and social and environmental performance characteristics was positive and significant at the 1 percent level. The relationship between the equity holdings of life insurance funds and social and environmental performance characteristics was positive and significant at the 5 percent level. Results for charities and unit trusts were not statistically significant. The relationship between the equity holdings of investment trusts and social and environmental performance characteristics was negative and significant at the 1 percent level.

Whilst the finding for investment trusts was of real interest this was not taken further because investment trusts hold such a small proportion of UK shares. Breaking down investment trusts into more granular clienteles based on their different types risked a loss of robustness within the regression results. Investment trusts might make for interesting future research, perhaps using other methods.

The results of this research help buyers of fund management products to better understand the average level of social and environmental performance delivered by different products. Results are also important to legislators interested in building an evidence base about the effectiveness of pension disclosure legislation, commencing in 2000.

Paper 2

This paper extended Paper 1 by focusing on broad differences amongst pension funds. Separate clienteles were created for public sector funds, private sector funds, inhouse managed funds, externally managed funds, public sector inhouse managed funds, public sector externally managed funds, private sector inhouse managed funds and private sector externally managed funds.

One result was that the relationship between the equity holdings of public sector funds and social and environmental performance characteristics was not statistically significant. This contrasts with a mostly theoretical literature that suggests the investment holdings of public sector funds will be highly idiosyncratic because they are influenced by social, political and other non-price factors.

A second result was that the relationship between the equity holdings of inhouse managed pension funds and social and environmental performance characteristics was positive and significant at the 1 percent level whereas the relationship between the equity holdings of externally managed pension funds and social and environmental performance characteristics was negative but not statistically significant. It did not matter whether the clienteles examined referred to inhouse and externally managed public sector pension funds, inhouse and externally managed private sector pension funds, or all inhouse and all externally managed pension funds. The result was similar.

This result suggests that the location of the fund managers that pension funds appoint to invest and manage their assets is a key determinant of a particular preference for social and environmental performance. This provides a challenge to the conventional advice of investment consultants that outsourced fund management will generally lead to improved outcomes. The results of this research are also important in suggesting that public sector and private sector pension funds do not, of themselves, have significantly different preferences for social and environmental performance.

Paper 3

This paper extended Paper 2 by investigating competition among fund managers and preferences for social and environmental performance characteristics. The paper argued that the more investment managers a pension fund hires to manage a particular subset of securities, the greater is the manager tournament and the less social and environmental performance will be of interest.

Pension fund clienteles were created based on the number of managers each pension fund hired to manage UK equities. This started with a clientele in which only 1 fund manager was hired, then a clientele in which 2 fund managers were hired, a clientele in which 3 fund managers were hired, and so on up to 6.

For pension funds that hired 1 or 2 fund managers, the relationship between their equity holdings and social and environmental performance was positive and significant at the 5 percent level. For pension funds that hired 3 or 4 fund managers, the relationship between their equity holdings and social and environmental performance was negative and insignificant. For pension funds that hired 5 fund managers, the relationship between their equity holdings and social and environmental performance was negative and significant at the 10 percent level.

The results confirmed the expected inverse relationship between the number of fund managers hired to manage a particular subset of securities and the social and environmental performance characteristics of the equities held.

The paper provides insight for trustees of pension schemes who decide both the delegation of fund management and the number of fund managers to appoint over each subset of securities. The paper also raises awareness generally on the design of investment management contracts and possible differences in the short and long term focus of different types of fund manager.

Paper 4

The focus of this paper was again pension funds. A working draft of the paper received a best paper award at the 2006 Academy of Management conference. The objective of the paper was to determine whether there was different demand for social and environmental performance characteristics according to whether pension funds were investing domestically or overseas.

This was performed by comparing the UK equity holdings of UK and US pension funds, the former being domestic and the latter overseas. The paper argued that comparing both sets of investors UK equity holdings was justified because UK and US pension schemes are sufficiently similar on a number of key criteria.

UK and US clienteles were matched to remove potential extraneous differences in the revealed preference for social and environmental performance. This involved creating UK and US clienteles for local authority pension funds (state in the US), corporate pension funds, labour union pension funds and university, church and charity pension funds. University, church and charity pension funds were combined because each was too small to investigate individually.

Results indicate that pension funds paid greater attention to responsible investment when investing at home than overseas. The exception to this was labour union pension funds. Regardless of whether labour union pension funds were investing domestically or overseas, the relationship between their equity holdings and workplace performance was positive and significant at the 5 percent level or better. This suggests an alignment between the organisational principles of labour unions and the investments made within their pension funds.

The results of this research are important to lobby groups interested in responsible investment as a global trend and not just a domestic trend. The results also provide insight as to the alignment between the investments that some pension funds make and their organisational principles and causes.

Paper 5

The fifth paper drew on a separate dataset. This took the form of interviews and surveys with 25 fund management firms between June and November 2007. The research was used to assist the Department For Work and Pensions develop an understanding of responsible investment. This study makes three contributions to knowledge.

One contribution is new evidence on communication between fund managers, as investors, and corporate directors, as stewards of investors' funds, for the purpose of responsible investment. Fund managers gave a total of six reasons for communicating with corporate directors. These were obtaining investment information as ideas for trading securities, communicating to achieve influence, building and maintaining relationships, consultancy, corporate disclosure and influence on public policy. The paper provides an extended description for each reason, ranks their importance, and highlights conflicts through the use of case examples. This extends work by Holland (1998), Hendry, Sanderson, Barker and Roberts (2006) and Roberts, Sanderson, Barker and Hendry (2006).

A second contribution is evidence on how responsible investment achieved financial performance. Fund managers gave three reasons. One way was to understand and capture the financial dividend attached to more responsible firms. The paper performs an extended literature review to examine this. A second way involved bringing about influence at the level of the firm. The third way involved bringing about influence at the level of public policy that would then benefit all of a fund's holdings. The paper provides an extended description on each of these as well as case examples.

A third contribution is evidence on operational and delivery aspects of responsible investment. This includes detailed examination of information and staff as inputs into responsible investment, measurement of the quality of responsible investment within fund management firms, and an assessment of costs and charges associated with the range of responsible investment possibilities. This more discursive analysis develops and extends understanding of responsible investment within an institutional fund management setting.

Future Research

During the next 2 years I intend to draw on the work included within this submission for a PhD in order to yield a further three refereed journal articles. A summary of each intended article is provided below.

Paper on Defined Contribution and Defined Benefit Pension Schemes

One potential future paper is to distinguish and separately investigate defined contribution and defined benefit pension schemes' demand for the characteristics of social and environmental performance within their equity portfolios. My original intention as a full-time PhD student was to produce a paper on this topic. At the methods stage of my full-time PhD programme I coded all the data so that I could readily distinguish between defined contribution and defined benefit pension schemes. At the time this involved manually coding each pension scheme in my dataset using the 2002 book

'Pension Funds and their Advisors' and the 2003 book 'National Association of Pension Funds Year Book 2003: 80th Anniversary Edition'. Each book held detailed pension scheme information for the year 2002, the same year as my dataset. This classification permits me to perform regressions on these two classes of pension scheme and examine demand for the characteristics of social and environmental performance within their equity portfolios. I intend to finish and submit the paper to a finance or management journal in 2010.

Such a paper might be timely because the topic of defined contribution pension schemes has risen in importance of late. Within the workplace there has been significant closure of defined benefit (DB) schemes¹ and a switch to individual defined contribution (DC) schemes. For example, in the UK the number of active members in private sector workplace DB schemes has more than halved in recent years, and in 2008 just 31% of private sector DB schemes remained open to new entrants (Pension Protection Fund 2008).

The closure of private sector workplace DB schemes has been accompanied by increased participation in individual DC schemes. For example, in 2007 92% of open private sector workplace schemes in the UK were DC (Office for National Statistics, 2008), and for the first time in 2006 the amount of money flowing into DB schemes was less than the amount flowing into DC schemes (ABI, 2008).

This shift towards DC membership will be underlined further from 2012, when all employers in the UK will be required to automatically enrol employees into a workplace pension. The reforms are expected to increase membership of workplace pension schemes by over 6 million (including membership within the new personal accounts DC scheme – now called NEST). Much of this increase is likely to be within DC schemes.

Most of the work on this paper will involve writing-up and developing expectations for why DC and DB schemes may have different demand for the

¹ Including closing to new members and stopping future accruals for existing members.

characteristics of social and environmental performance within their equity portfolios.

Paper on Direct Communication between Institutional Shareholders and Corporate Directors

A second potential future paper concerns direct communication between institutional shareholders and corporate directors. Information for such a paper is contained in Paper 5 of this submission for a PhD. An early draft of a potential journal output has been submitted and accepted for presentation to the British Accounting Association conference in April 2010. I intend to submit the final paper to a finance or management journal toward the end of 2010. Once again, the research is relatively timely, with the Financial Reporting Council recently expressing a desire to see new research in this area in order to better understand communication between major shareholders and companies.

Although the entitlement of major shareholders to maintain oversight of corporate directors and to discharge this by direct communication is rooted in the governance process, there has been recent concern that the meeting time is more often used to acquire information and intelligence for trading. The potential importance of the purpose and emphasis of these communications makes it a natural source of interest. Very few studies have so far yielded insight into this process, so this potential paper can help close that gap. The contribution of the paper would be to add new insight and evidence to this area and to do so based on a significant sample and robust investigative methods.

Paper on Voting of Shares and Ownership by Institutional Shareholders

A third potential future paper is another extension of Paper 5 This draws on data that I did not include with this submission for a PhD. I have data and evidence on the voting of shares by professional fund managers in routine and controversial situations, voting in segregated and pooled funds, voting of domestic and overseas shares, the proportion of recalling of shares on loan for voting in contentious situations, how voting interacts with stock lending, the

escalation of problems when voting is not thought to be enough, and escalation when problems between major shareholders and corporate directors are unable to be satisfactorily resolved in private.

An early draft of a potential journal output has been submitted and accepted for presentation to the British Accounting Association conference in April 2010. I intend to submit the final paper to a finance or management journal some time in 2011. My intention is to collaborate with a co-author on this particular area. The reason for this is that this subject area represents a widening of my research into areas where other scholars have good and complementary knowledge and experience.

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PART B

Institutional Investment and Responsible Investing

The following five papers are published in Business & Society, the Journal of Business Finance & Accounting, the Journal of Business Ethics and the Department For Work and Pensions Research Report series. I am currently reworking Paper 5 into a journal submission. The papers are as follows:

1. Cox, P., Brammer, S., and Millington, A. 2004. *An empirical examination of institutional investor preferences for corporate social performance*. Journal of Business Ethics, 52(1) pp 27-43.
2. Cox, P., Brammer, S., and Millington, A. 2008. *Pension funds and corporate social performance: An empirical analysis*. Business & Society, 47(2) pp 213 - 241.
3. Cox, P., Brammer, S., and Millington, A. 2007. *Pension fund manager tournaments and attitudes towards corporate characteristics*. Journal of Business Finance & Accounting, 34(7/8) pp 1307-1326.
4. Cox, P., and Schneider, M. 2008. *Is US socially responsible investing global or local in perspective? A study of US pension plan investment in the UK*. Business & Society, OnlineFirst April 24.
5. Paul Cox, 2009. *Responsible investment in fund management: It works, but when?* Department For Work and Pensions Research Report. Accessed from the Internet at <http://www.padeliveryauthority.org.uk/investment.asp>.

An Empirical Examination of Institutional Investor Preferences for Corporate Social Performance

Paul Cox
Stephen Brammer
Andrew Millington

ABSTRACT. This study investigates the pattern of institutional shareholding in the U.K. and its relationship with socially responsible behavior by companies within a sample of over 500 UK companies. We estimate a set of ownership models that distinguish between long- and short-term investors and their largest components and which incorporate both aggregated and disaggregated measures of corporate social performance (CSP). The results suggest that long-term institutional investment is positively related to CSP providing further support for earlier studies by Johnson and Greening (1999, *Academy of Management Journal* **42**, 564–576) and Graves and Waddock (1994, *Academy of Management Journal* **37**, 1034–1046). Disaggregation of CSP into its constituent components suggests that the pattern of institutional investment is also related to the form which CSP takes. Investigation of the impact of investment screens on the selection of stocks suggests that long-term institutional investors select primarily through exclusion, rejecting those firms which have the worst CSP.

KEY WORDS: institutional investment, corporate social performance, socially responsible investment

Introduction

The recent evolution of the pattern of ownership of the stock of large corporations is marked by two significant trends. First, the extent to which the common stock of companies has come to be owned by institutions, such as pension and mutual funds, rather than individual investors has risen dramatically over the last 25 years (National Statistics, 2002; Ryan and Schneider, 2002; Useem, 1996). Second, the rapid growth of the socially responsible investment (SRI) movement has stimulated interest in aspects of corporate behavior other than those directly associated with corporate financial performance (Social Investment Forum, 2002a; Sparkes, 2000; UK Social Investment Forum, 2003). These developments have prompted researchers to examine the link between corporate social performance (CSP) and the extent of institutional ownership in company stock (Coffey and Fryxell, 1991; Graves and Waddock, 1994).

The growth in individual institutional shareholdings has both increased the visibility of institutional investors and reduced the flexibility of institutions to exit investments without significantly damaging their value. It has been hypothesized that these developments may have resulted in an increase in shareholder activism and greater focus on long-term returns (Graves and Waddock, 1994; Johnson and Greening, 1999). At the same time, institutional investors have come under increasing pressure to encompass social performance in investment selection. Recent evidence suggests that SRI accounts for a significant proportion of total investment in both the U.S. and the U.K. For example, the Social Investment Forum estimated that US\$2.3 trillion of social funds were under management in the U.S. in

Paul Cox is research teaching associate at the University of Bath. His Ph.D. research examines the patterns of institutional investment.

*Stephen Brammer is a lecturer in management at the University of Bath. His current research focuses on empirical aspects of corporate social and political activities. His recent publications include papers in the *Journal of Business Ethics* and *Business Ethics: A European Review*.*

*Andrew Millington is a lecturer in management at the University of Bath. His current research focuses on the motivation and management of corporate charitable and political contributions. His publications include papers in the *Journal of International Business*, *Management International Review*, *International Business Review* and the *Journal of Business Ethics*.*

2001,¹ equivalent to one in every eight dollars under professional management, while the corresponding amount invested in U.K. social funds in the U.K. stood at approximately £25 bn in 2000 (Sustainability, 2000). However, while specialized SRI investment instruments have developed in both countries, the legal and institutional framework through which institutional investors view CSP differs significantly between the U.K. and the US. In particular, long-run institutional investors (e.g. Pension Funds, Life Assurance Companies) have become subject to regulatory and institutional social investment requirements in the U.K. (Association of British Insurers, 2001; Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2002; Occupational Pension Schemes, 1999). The developments in the U.K. suggest both that the study of SRI should encompass broad institutional categories as well as specialist SRI funds, since both pension and life assurance funds have become subject to legal and institutional requirements, and that significant differences may exist in the holdings of long-run institutional investors based on the incidence and level of CSP and the institutional and legal framework within which investment decisions are made.

Relatively few studies have considered the relationship between social performance and the holdings of different types of institutional shareholder and all of these are based on U.S. data. Graves and Waddock (1994) find that the number of institutional investors in a corporation's stock is positively related to firm social performance within a model that draws on efficient markets theory (Fama, 1970) supporting earlier work by Coffey and Fryxell (1991). Johnson and Greening (1999) place the analysis within agency theory but also find a positive relationship between pension fund investment and two aspects of social performance, a people dimension (community, women and minorities, employee relations) and a product quality dimension (environment, product quality).

This paper extends and develops the existing literature in three ways:

- (1) The paper investigates the impact of CSP on the pattern of institutional investment in the U.K. within a set of ownership models that distinguish between long- and short-term

investors and their largest components (Pension Funds, Life Assurers, Charities, Unit Trusts, and Investment Trusts). The study therefore provides an investigation of the relationship between institutional investment and CSP within a fundamentally different institutional and regulatory environment. In so doing, the analysis sheds light on the preferences of institutional investors for CSP as revealed in the pattern of their investments. The use of disaggregated ownership data permits the exploration of disparities in behavior between long- and short-term investors and the impact of differences in regulatory and institutional social investment requirements on the pattern of institutional ownership. The typology builds on recent conceptual work which has highlighted the diversity of institutional investors and argued that the behavior of institutional investors is conditioned by a complex set of characteristics (Ryan and Schneider, 2002).

- (2) In spite of the recognition that firm social performance is a fundamentally multidimensional construct (Carroll, 1979) the diversity of social performance is only partially examined in existing empirical work (Cofey and Fryxell, 1991; Johnson and Greening, 1999). The analysis in this study employs both an aggregated CSP construct and also separate measures of the community, environment and employee-relations dimensions of social responsibility. This permits the analysis to investigate whether the preferences of different institutional investors vary across different dimensions of CSP.
- (3) Existing studies say very little about the process by which CSP is linked to the behaviour of institutional investors. Some studies have suggested that institutional investors employ screens that distinguish in a binary fashion between admissible and inadmissible stocks on the basis of firm social performance (Barnett and Salomon, 2002). Our methodology tests for this possibility through the inclusion of dummy variables that highlight the companies with the best and worst social performance.

The paper is structured as follows. The next section discusses the conceptual background to the study and outlines our hypotheses. The third introduces the sample and variable definitions. The final section reports the findings and the theoretical and policy implications are then outlined in the concluding section.

Conceptual background and hypotheses development

In this paper the relationship between institutional shareholdings and CSP is investigated within a model which draws on portfolio theory (Foster, 1986; Markowitz, 1952) and the typology of institutional investors generated by Ryan and Schneider (2002). Portfolio theory suggests that investors should consider both the rate of return and the level of risk when making investment decisions (Graves and Waddock, 1994). The trading preferences of institutional investors are largely dictated by the nature of the products that they sell and a broad distinction can be drawn between short- and long-term investors which influences the time horizon within which the pattern of investment returns will be considered (Graves and Waddock, 1994; Ryan and Schneider, 2002). This implies that the importance of social factors in institutional investment decisions may be expected to depend on the financial returns to CSP, the relationship between CSP and risk, and the time horizon within which these benefits accrue. Institutional investors are also subject to a set of regulatory, institutional and social pressures which impact upon individual types of institutional investor and may affect the preferences of institutions for firms with different social performance attributes. Each of these factors is considered below.

Financial performance, risk and CSP

Given that institutional investors buy and hold stock with the aim of generating risk adjusted financial returns both for the institution and for their customers, expectations concerning the relationship between corporate social and financial performance are expected to play a crucial role in influencing the

pattern of institutional investment. There is a broad consensus in the conceptual literature that many of the financial gains from improved social performance accrue in the long run while social performance initiatives may require companies to make significant investments in the short run. Hillman and Keim (2001) argue that improved social performance can contribute positively to “long-term value creation” (Hillman and Keim, 2001, p. 127) through the creation of “socially complex resources” (Hillman and Keim, 2001, p. 127). Other authors have similarly argued that financial performance and social performance might be positively associated in the long run because improved social performance confers better resource competitiveness (Cochran and Wood, 1984; Hart, 1995; Waddock and Graves, 1997), lower transaction costs (Ruf et al., 2001), employee quality and motivation (Moskowitz, 1972; Turban and Greening, 1997), and customer goodwill (McGuire et al., 1988). At the same time, low levels of social performance may increase a firm’s financial risk (Ullmann, 1985) by signaling low management skill (Alexander and Bucholtz, 1978; Spicer, 1978), uncertain and possible increased government regulation and fines (McGuire et al., 1988), and increased uncertainty regarding the level and variability of future cash flow (Richardson et al., 1999; Shane and Spicer, 1983). This discussion suggests that long-run investors may be more likely to exhibit a preference for firms with good social performance because of its potentially favorable impact upon long-run risk and return (Graves and Waddock, 1994).

CSP is generally considered to be multidimensional (Carroll, 1979; Griffin and Mahon, 1997) and a comprehensive assessment of a firm’s social performance should encompass a range of aspects (Carroll, 2000). However, existing empirical and conceptual contributions have argued that different types of corporate social activity have different implications for firm financial performance (Griffin and Mahon, 1997; Hillman and Keim, 2001). Griffin and Mahon (1997) highlight the variety of senses in which a firm can be defined as being socially responsible and demonstrate that perceptions of the link between social and financial performance is contingent upon the dimension of social performance considered. Hillman and Keim (2001) argue that aspects of firm social performance that help to

propagate good relationships with key stakeholder groups such as employees can lead to long-term competitive advantages that confer improved financial performance and find strong empirical support for their view. Significant differences can also be observed between CSP attributes and the potential for risk reduction. Thus investments in employee related initiatives may be expected both to improve financial performance and to reduce the risk of employee related legal action and resultant poor public relations. Hart (1995) indicates that many environmental policies such as 'end-of-pipe' approaches, source reduction and process innovation (Hart, 1995) tend to be fixed cost investments, having physical asset properties (Russo and Fouts, 1997), with benefits spread over many years. While such developments may result in efficiency gains, the primary impact of environmental initiatives is likely to lie in long-term risk reduction. In contrast community contributions have the shortest-term pay-off (Carroll, 1979), are largely external to the company and are not directly linked to areas which are subject to regulation and/or legal action in the company.

Institutional and regulatory pressure and CSP

In addition to the purely financial aspects of institutional investor decision-making, institutional investors are also subject to regulatory, institutional and social forces (Ryan and Schneider, 2002) which may influence the importance they attach to CSP. In the U.K. CSP has come under increasing scrutiny from ethical investment research services and fund managers as institutional investors have responded to external pressures. This development reflects legislative pressure, U.K. pension funds were required to identify the role of social, environmental and ethical considerations in investment planning in 2000 (Occupational Pension schemes, 1999), pressures from industry trade bodies who have set social agendas for institutional investors (e.g. Association of British Insurers, 2001; Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2002), and significant public interest in SRI, with National Opinion Poll survey results suggesting that 77% of respondents supported ethical pensions (The Ethical Investor, 1999). Both the extent to which investment selection is subject to external

pressure for socially responsible stocks, and the form it takes (legal requirement, voluntary) differs between types of institutional investors.

The preceding discussion suggests that, on balance, the benefits of CSP, whether financial or through risk reduction, are long run rather than short run while the costs must be carried in the short run. Furthermore, the returns to investment in CSP and the time period in which they accrue may depend on the particular attributes (employment, environment, community) which underpin CSP. Institutional investors are also subject to significant regulatory and institutional requirements which may affect investment patterns. The implications of these characteristics for the pattern of institutional investment are discussed in detail below.

Institutional investment and CSP

The relationship between institutional ownership and CSP is explored within a set of institutional ownership equations which encompass both long- and short-term investors and five different institutional types: pension funds, life assurance, charities, unit trusts, and investment trusts. The relationship between each of these and CSP is analyzed below within a discussion which emphasizes differences in the regulatory and institutional requirements for CSP. Although differences in CSP attributes (employees, environment, community) are expected to have a differential impact on long- and short-term institutional investors no a priori relationship is expected between CSP attributes and different types of short- and long-term investor; the discussion of different types of CSP is therefore restricted to the distinction between long- and short-term investors. A common set of control variables which may be expected to influence the pattern of institutional investor holdings is then considered.

Long-run investors

Long-term investors (e.g. Pension Funds, Life Assurance Funds, Charitable Funds) typically have predictable cash outflows, a long investment horizon and invest for long periods (Ryan and Schneider, 2002). Since the financial benefits of CSP are

expected to accrue in the long-term we hypothesize that:

Hypothesis 1a: The extent of long run institutional investor fund holdings in companies will be positively associated with corporate social performance.

The earlier discussion suggested that employee related CSP would produce both efficiency gains and a reduction in risk while environmental initiatives are hypothesized to result in a reduction in risk and the consequent cost of environmental failures. Community initiatives are expected to have the weakest links to both long-term financial performance and risk reduction. We therefore hypothesize that:

Hypothesis 1b: The expected positive association between the extent of long run institutional investor fund holdings and corporate social performance will be stronger for companies with good employee relations performance than for companies with good community or environmental performance.

Hypothesis 1c: The expected positive association between the extent of long run institutional investor fund holdings and corporate social performance will be stronger for companies with good environmental performance than for companies with good community performance.

Short-run investors

In contrast, the requirements of many institutional investors are for short-term financial performance and for liquidity. For example, the immediate redemption rights afforded to owners of unit trusts, a form of open-end mutual fund, encourage mutual fund managers to adopt a short-term investment horizon and favor ownership of firms with high trading liquidity from which exit can take place quickly without adversely affecting market prices (Droms and Walker, 1996; Johnson and Greening, 1999; Social Investment Forum, 2002b; Zera and Madura, 2001). Since the benefits of CSP accrue in the long run while much of the investment takes place in the short run we hypothesize that

Hypothesis 2a: The extent of short run institutional investor fund holdings in companies will be negatively associated with corporate social performance.

Since employee related initiatives are argued to have the strongest relationship with financial performance it is tentatively suggested that:

Hypothesis 2b: The expected negative association between the extent of short run institutional investor fund holdings and corporate social performance will be weaker for companies with good employee relations performance than for companies with good community or environmental performance.

Pension funds

Pension funds have a long average duration of liabilities (Davis and Steil, 2001), a long minimum investment period before any pension benefits can be received (Copeland and Weston, 1988), predictable cash outflows (Ryan and Schneider, 2002), a long investment horizon or planned liquidation date of investment and low asset turnover (Ryan and Schneider, 2002). U.K. pension funds face some regulatory pressure to adjust their investments for CSP. As of July 2000 U.K. pension funds have had a legal requirement to make public in their statement of investment principles the importance they attach to social performance in investment selection (Occupational Pension Schemes, 1999). Strong industry trade bodies also set social agendas for both public and private pension funds (Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2002). A survey conducted at the time of this change found 19% of private sector funds and 31% of public sector funds taking social considerations into account in investment selection (Targett, 2000).² Since Pension Funds may be expected to benefit from the long-run financial benefits flowing from CSP and are subject to significant regulatory and institutional pressure which influence the importance they attach to CSP, a positive relationship may be expected between pension fund holdings and CSP. Earlier evidence from the U.S., within an agency framework, provides tentative support for the expected relationship (Johnson and Greening, 1999).

Hypothesis 3: The extent of pension fund holdings in companies will be positively associated with corporate social performance.

Life assurance companies

Stock holdings by life assurers are more significant in the United Kingdom than in the United States (National Statistics, 2002; Ryan and Schneider, 2002), perhaps reflecting the absence of limits to the extent to which such funds can consist of equity investments in the United Kingdom (Dickinson, 1998). Life assurance companies have relatively predictable cash outflows, typically invest for long periods and have close links with pension funds through insurance provided to small defined-benefit pension funds, direct provision of defined-contribution pensions and guaranteed investment contracts purchased by pension funds (Davis and Steil, 2001). The industry trade body for life insurance companies has set a social investment agenda for insurance company equity investment (Association of British Insurers, 2001). This agenda differs from the legal requirements which constrain CSP investment policy in pension funds in two ways. First, it is more demanding and rigorous in its approach to corporate social issues and their role in investment selection and secondly it is voluntary and without the force of law. While this suggests that life assurance equity investments will be influenced by CSP, the voluntary nature of institutional pressure in this sector and the requirement for small amounts of short-term liquidity to cover early surrender of policies, coupled with the uncertain timing of life policy payouts,³ may reduce the relative importance of CSP in this sector. It is therefore hypothesized that:

Hypothesis 4: The extent of life assurance fund holdings in companies will be positively associated with corporate social performance.

Hypothesis 5: The relationship between life assurance fund holdings and corporate social performance will be weaker than that between pension fund holdings and corporate social performance.

Charities

The overall size of U.K. charity investment amounts to only 1% of the total stock of large U.K. firms (National Statistics, 2002) and is therefore relatively small in terms of overall U.K. firm ownership. The

perpetuity characteristic of their permanent endowment imparts charities with a long investment horizon. Although the Charity Commission does not set a social agenda for trustees' consideration and under U.K. common law charity trustees are required to act in the best interests of beneficiaries, investing prudently, without speculation, to achieve both income and capital growth (Responsibilities of Charity Trustees CC3, 2002; Responsibilities of Charity Trustees: A Summary CC3, 2002), charities face considerable regulatory pressure from other sources to consider social performance in their investment decisions. The trustee act of 2000 "which came into force in February 2001, requires charity trustees to make sure investments are suitable, not only financially, but also with regards to the charity's own stated aims" (Eiris, 2001/2002). Recent empirical evidence suggests that the vast majority (84%) of charities employed some form of ethical screening of their investments, with 59% excluding tobacco companies from their investments and 25% having a formal or informal ethical investment policy (Eiris, 2001). The application of a typically narrow selection of negative screens is estimated to reduce the pool of stocks available for investment by charities by only 5% (WM Company, 1999). Since charitable funds are expected to benefit from the long-run financial benefits flowing from CSP, are subject to regulatory pressure to consider CSP, and have inherently pro-social performance preferences given their social remits, we hypothesize that:

Hypothesis 6: The extent of charity fund holdings in companies will be positively associated with corporate social performance.

Unit trusts

U.K. unit trusts own 12% of U.K. listed firms (National Statistics, 2002) and are the largest short-term investor. Whilst a very small minority of U.K. unit trusts have a social investment mandate (UBS Warburg, 2001) the vast majority have a purely financial interest in a portfolio of firms (Ryan and Schneider, 2002). The absence of institutional and regulatory pressure to consider firm social performance suggests that short-term purely financial

interests enter most significantly into unit trust investment. Therefore we expect that

Hypothesis 7: The extent of unit trust holdings in companies will be negatively associated with corporate social performance.

Investment trusts

Whereas Ryan and Schneider do not separately categorize investment trusts they are of greater significance in the U.K., owning 2.2% of listed firms (National Statistics, 2002). An investment trust is a closed end public listed, fixed share capital, mutual fund in which liquidity is stock market provided. Because investors need to sell their shares in the investment trust company to other investors to realize their investment, rather than simply redeem their investment at the currently quoted price as in the case of unit trusts (Lofthouse, 2001), the investment trust share price need not equal the price of the underlying assets (Investment Management Association, 2003). Whereas open-end funds are obliged to buy and sell at net asset value the value of closed end funds therefore fluctuates according to the demand for the shares on the stock market. The absence of social performance regulatory pressure, short investment time horizon and the immediateness and transparency of investor disappointment with investment trust managerial performance leads us to expect a strong negative relationship between investment trust ownership and social performance as financial interest enters most significantly into investment trust decisions.

Hypothesis 8: The extent of investment trust holdings in companies will be negatively associated with corporate social performance.

The hypothesized relationships between the extent of institutional investment holdings and CSP are summarized in Table I.

Control variables

A range of control variables were included in the analysis. Following earlier work, firm size is included

both because some investors may find large firms less attractive since their ownership will be relatively small, limiting their ability to influence management (Graves and Waddock, 1994), and because investment in small firms may only be viable for small investors or institutions managing funds of small average size. In addition, client mandates may place a ceiling on the percent of ownership able to be owned in any one firm, effectively confining investment to large firms where maximum ownership limits will not be breached.

Company leverage was included to control for the possibility that the higher risk of insolvency associated with more indebted companies deters some institutional shareholders (Chaganti and Damanpour, 1991). Alternatively, high leverage may commit management to high earnings and thereby reduce agency costs through motivational effects (Duke and Hunt, 1990) or it may reduce the ability of managers to prioritize external growth through merger and acquisition rather than profitability (Myers, 1984; Weston et al., 2001). These other arguments suggest that investors may prefer to invest in high leverage companies.

Since the flow of accounting profits is expected to contribute to the market performance of stocks, we expect to find a positive relationship between the proportion of institutional ownership and profits (Graves and Waddock, 1994; Johnson and Greening, 1999).

In order to adjust for the presence of large block holders in the form of controlling families, company cross holdings or government and director holdings that may discourage interest from large investors seeking to influence the management of firms, we include the proportion of total equity which is not controlled by block holders (the free float proportion) as an explanatory variable. A positive relationship is expected between free float and institutional investment.

Finally, we include a set of industry dummy variables to account for the possibility that ownership of firms across different industries may be influenced by the general relationships industries have with expected risk and return but also by the negative and positive investment screens of social investors. Recent commercial research (Commerzbank, 2002) suggests that risk and return differences between socially constrained and unconstrained

TABLE I
Summary of key hypotheses

Investor group	Hypothesised relationship between extent of holdings and corporate social performance	Reason(s)
Long term investors	+	Expectation that investments in CSP will pay off in long run; reduced risk associated with investment in socially responsive companies. Higher preference for employee and environmental aspects of CSP than for community aspects of CSP.
Pension funds	+	As for other long term investors plus some regulatory pressure
Life assurance	+	As for other long term investors but comparatively higher need for a degree of short term liquidity; presence of regulatory pressure
Charities	+	As for other long term investors plus inherent preference for social performance characteristics of companies
Short term investors	-	Expectation that investments in CSP will be detrimental to short term financial performance; need for liquidity to meet redemptions; absence of regulatory imperative. Higher preference for employee and environmental aspects of CSP than for community aspects of CSP.
Unit trusts	-	As for other short term investors
Investment trusts	-	As for other short term investors; strong market discipline to maintain fund performance

stock portfolios may simply be the result of industry effects. Therefore we need to control for the influence of industry on stock ownership in order to isolate the contribution due to social performance.

Methods

Our sample was drawn from the constituent companies of the FTSE AllShare index. This index of approximately 600 of the largest U.K. quoted firms is rebalanced quarterly (FTSE, 2003a) to allow firms that have dropped out of the 600 largest to be replaced by new additions. It is not uncommon for firms to periodically leave and re-enter the index at rebalancings and, therefore, the membership of an index is subject to volatility. Because of this, our sample consisted of all firms that have been index

constituents in any quarter during 2001 and 2002. This yielded a sample of 678 firms.

The analysis requires that data concerning the social performance of this sample of companies be matched to accounting and company ownership data. Social performance data were obtained from the Ethical Investment Research Service (EIRIS), the U.K.'s oldest independent research company specializing in the assessment of CSP for investors. EIRIS has 20 years dedicated social research experience, the largest and most complete multidimensional social performance coverage of U.K. firms and more than 75% of U.K. ethical funds subscribing to its data. Accounting data were extracted from Datastream. Ownership data was drawn in June 2002 from a share ownership analysis database of more than 2000 listed U.K. firms managed by one of the

U.K.'s largest company registrars. Ownership data are continually updated to incorporate underlying beneficial ownership changes and investment managers' holdings from share trading information recorded daily on the London Stock Exchange. The database disaggregates share ownership according to 32 different types of beneficial owner. Missing social performance data reduced our dataset from 678 to 576 firms. Missing financial data further reduced it to 541 firms. This provides us with the largest share ownership and social performance research sample so far examined, significantly greater than the 430 and 252 firm samples of Graves and Waddock (1994) and Johnson and Greening (1999), and one that captures 80% of the largest 678 U.K. quoted firms between 2001 and 2002.

Given that the model is fundamentally one of investor choice, the dependent variables analyzed are designed to capture the preferences of various groups of institutional owners for socially responsive attributes among the sample companies. Recent research has highlighted that not all the stock in a company is traded and that it is important to adjust for this phenomenon in empirical work (Hamon and Jacquilat, 1999). The free float proportion is the fraction of shares tradable within the market place for a given stock. Adjusting firms share capital for free float overcomes situations where an investor owns a proportion of a line of stock that is unlikely to be for sale and so ensures an accurate representation of the proportion of a firm's stock that is available for institutional investors to own. This adjustment reflects government holdings in privatization stocks, firm-to-firm trade investments and cross holdings, significant long-term holdings by founders, directors and director's families, employee share schemes and portfolio investment subject to lock-in clauses (FTSE, 2003a, b). The relatively recent calculation of the free float proportions allows researchers to now control for tradable firm size in a manner unavailable to prior research in this area. Seven dependent variables were created each of which is defined as the natural logarithm of the ratio of total holdings by a given group of institutional investors to the total number of shares in the company adjusted for the free-float. Following the discussion earlier the seven groups are: All long-term investors, pension funds, life assurance, charities, all short-term investors, unit trusts, and investment trusts.

The key independent variables concern CSP. Carroll (1979) emphasizes the fundamentally multidimensional nature of this construct and, reflecting this, Griffin and Mahon (1997) suggest that CSP should be disaggregated into its individual components so as to avoid the information losses associated with aggregation into a single construct. At the same time, a good aggregate CSP measure will comprise a consistent range of important social issues that are uniformly measured across a wide range of companies (Graves and Waddock, 1994). Following this our analysis employs both a single aggregated CSP construct and three constituent constructs that reflect specific dimensions of the overall CSP construct. In order to investigate the possible impact of investment screens on the selection of stocks on the basis of firm social performance a third measure of CSP is also derived which highlights companies with the best and worst social performance.

EIRIS social performance information comprises data concerning five CSP attributes: environment, employment, community, human rights and supply chain management. Full information is available for our sample firms for the environment, employment and community dimensions of social performance. Fewer data are available for human rights and supply chain management. Since including all five CSP attributes would unnecessarily restrict our sample size the analysis is restricted to three dimensions of social performance: environment, employment and community.

Employment comprises five separate components relating to information on health and safety, training and development, equal opportunities, employee relations and job creation and security. Environment comprises separate components relating to information on policies, systems, reporting and performance. Community is entered as a single measure by EIRIS. Following the general approach used by Graves and Waddock (1994) for KLD data we translated the EIRIS text-grade rating for each measure into a number-grade rating. Each environmental measure has five text categories; the employment measures have three text categories, while community has four text categories. We coded each of these text scales into five point scales for aspects of environmental performance, a four point scale for community involvement and three point scales for employee

involvement. In each case the codes began with a value of 1 and larger numbers indicated a higher degree of social responsiveness.

To arrive at a single measure for employment (EMPLOYEEES), environment (ENVIRONMENT) and community (COMMUNITY) CSP attributes we sum the number-grade ratings for each attribute. This results in an environment score out of 20, employment score out of 18 and community score out of 4. Our environment measure has a Cronbach's Alpha⁴ of 0.85 and employment of 0.88. Finally, to arrive at a single aggregate CSP measure (CSRCOMP) we normalized the score on each stakeholder theme to 4 so as to effectively give them equal weight. This generates a possible range of scores from 3 to 12 and a Cronbach's Alpha of 0.92.

In order to obtain a measure of the best and worst CSP the aggregate CSP rating for each company was ranked, the ranked sample was then divided into quartiles of equal numbers of firms and two dummy variables were defined. BEST takes a value 1 if the firm has a CSP ranking in the top quartile. WORST takes a value 1 if the firm has a CSP ranking in the bottom quartile.

The financial control variables were estimated using data obtained from DataStream. Following Johnson and Greening (1999) firm size (SIZE) is measured by the natural logarithm of company assets. Logged values are used in order to minimize the impact of extreme values and reduce heteroscedasticity. Leverage (LEVERAGE) is measured by the ratio of total debt to total assets (Graves and Waddock, 1994). Following Johnson and Greening (1999) and Graves and Waddock (1994) we measure profitability (ROTA) by the ratio of pre-tax profits to total assets.

The free float proportion (FREE FLOAT) is estimated by stock market index publishers to reflect availability of stock in the market for public investment. FTSE calculates free float as a proportion of 1 where 1 is complete tradable stock availability and 0 is no tradable stock availability. We use the mean free float of 8 quarters from start 2001 in order to measure the overall tradability of sample firms.

Finally, we defined a set of industry dummy variables to account for the possibility that ownership of firms across different industries may be influenced by the general relationships industries have with expected risk and return but also by the

negative and positive investment screens of social investors. Industry sectoral dummies were created using the FTSE Global Industry Classification System which groups listed stocks into nine economic groups: Basic industries, general industries, resource extraction industries, cyclical consumer good industries, cyclical services, non-cyclicals, utilities, financials and information technology industries. Nine dummy variables were constructed that took a value of one if the company was a member of that sector and zero otherwise. The basic industry sector was chosen as the comparator sector.

Results

Table II reports the results of regressing the composite measure of corporate social performance (CSRCOMP) and the set of control variables on the extent of a range of different types of institutional ownership in companies. The key aim is to identify the revealed preference of institutional investor groups for socially responsive attributes. On average the model explains approximately a quarter of the variance in the pattern of institutional ownership which compares favorably with earlier studies (Graves and Waddock, 1994). The results provide substantial support for the hypothesized relationships between CSP and the pattern of institutional investment in companies. The proportion of a company owned by long-term investors is significantly and positively related to company social performance ($p < 0.01$) and a positive relationship is also found between CSP and the proportion of company ownership for two of the three long-term investors identified, life assurance and pension fund holdings ($p < 0.05$ and $p < 0.01$ and respectively). The relationship between CSP and charitable holdings is positive but not significant at the 10% level or better. Although pension funds have come under regulatory pressure to disclose the role of ethical and social requirements in investment planning the coefficients on CSRCOMP are not significantly different in the Pension Fund and Life Assurance models (0.038 and 0.039, respectively). This may suggest that regulatory pressure upon pension funds to disclose their preferences for CSP does not generate extra incentives to buy stock in socially responsive companies beyond those attrib-

TABLE II
Estimates of the influences on the extent of institutional ownership

Independent variables	Dependent variables						
	Long-term investors	Pension funds	Life assurance	Charities	Short-term investors	Investment trusts	Unit trusts
CONSTANT	2.526*** (0.215)	5.575*** (0.223)	5.303*** (0.306)	-0.445 (0.533)	6.975*** (0.214)	7.736*** (0.470)	8.667*** (0.208)
SIZE	0.054*** (0.016)	0.077*** (0.017)	0.039* (0.023)	0.244*** (0.038)	-0.083*** (0.016)	-0.222*** (0.035)	-0.114*** (0.016)
ROTA	0.009*** (0.001)	0.005*** (0.001)	0.005** (0.002)	0.013*** (0.003)	0.009*** (0.001)	0.010*** (0.003)	-0.001 (0.001)
LEVERAGE	0.000 (0.001)	0.000 (0.001)	0.000 (0.002)	0.001 (0.003)	0.000 (0.001)	0.002 (0.003)	0.000 (0.001)
FREE FLOAT	1.154*** (0.140)	0.476*** (0.146)	0.627*** (0.199)	1.015*** (0.350)	1.026*** (0.139)	0.972*** (0.309)	0.297** (0.136)
CSRCOMP	0.037*** (0.013)	0.038*** (0.013)	0.039** (0.018)	0.016 (0.031)	-0.0004 (0.013)	-0.096*** (0.028)	-0.01 (0.013)
RESOURCES	-0.247** (0.126)	-0.165 (0.131)	-0.335* (0.179)	-1.157*** (0.297)	0.022 (0.126)	-0.342 (0.275)	-0.028 (0.122)
GENERAL INDS	0.149 (0.090)	0.173* (0.094)	0.079 (0.128)	-0.067 (0.218)	0.042 (0.090)	-0.392** (0.197)	-0.001 (0.088)
CYC. CONS GOODS	-0.098 (0.088)	-0.037 (0.092)	-0.248* (0.126)	-0.380* (0.214)	-0.036 (0.088)	-0.522*** (0.195)	-0.155* (0.086)
CYC. SERVICES	0.103 (0.069)	0.134* (0.071)	0.029 (0.098)	-0.208 (0.168)	-0.006 (0.068)	-0.329** (0.150)	-0.046 (0.067)
NON-CYCLICALS	-0.149 (0.128)	-0.237* (0.133)	-0.247 (0.182)	-0.354 (0.302)	-0.113 (0.127)	-0.550** (0.279)	-0.326*** (0.124)
UTILITIES	-0.128 (0.148)	-0.122 (0.154)	-0.273 (0.210)	-0.018 (0.348)	0.017 (0.148)	0.541* (0.323)	-0.025 (0.144)
FINANCIALS	-0.018 (0.079)	-0.051 (0.082)	-0.058 (0.112)	-0.540** (0.191)	0.036 (0.079)	0.184 (0.172)	0.000 (0.077)
IT	0.125 (0.099)	0.236** (0.103)	0.010 (0.141)	-0.081 (0.240)	-0.140 (0.099)	-0.494** (0.217)	-0.140 (0.097)
R2	30.60%	19.40%	9.60%	21.00%	23.30%	24.10%	18.50%
Fstat	17.904***	9.747***	4.264***	10.169***	12.316***	12.734***	9.188***
n	540	539	537	509	540	534	538

Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

utable to the long-term financial benefits which may accrue to CSP or institutional pressure from industry trade associations for SRI which characterizes both financial sectors. The relatively small and statistically insignificant coefficient on CSRCOMP in the charities model (0.016) is surprising in light of both of the regulatory and institutional pressures for socially responsible behavior in this sector and the inherently pro-social preferences of charitable investments.

In contrast, there is no significant relationship between the extent of aggregate ownership by short-term investors and company social performance. However, the results highlight an important degree of heterogeneity within the short-term investor group. The extent of investment trust ownership in companies is significantly negatively associated with company social performance ($p < 0.01$). It appears, therefore, that social performance is unattractive to at least some short-term

investors. It should be noted that these results are found while controlling for firm size and industry effects, both of which have been found to be associated with social performance attributes in earlier work (Griffin and Mahon, 1997).

The coefficients on the control variables are broadly consistent with the expected relationships and earlier findings (e.g. Graves and Waddock, 1994). The extent to which companies are owned by most groups of institutional shareholders is strongly positively associated with company profitability (ROTA) suggesting that financial performance attributes also play an important role in influencing institutional investors. Long-term investors are found to have larger ownership shares in larger companies (SIZE) while the share of ownership by most groups of short-term investors appears to be higher in small companies. The proportion of shares that are freely tradable in a company (FREE FLOAT) is positively associated with the degree of institutional ownership of all types.

Table III focuses on the impact of the constituent parts of CSP on the degree of ownership by long- and short-term investor groups. Once again there are significant differences between long- and short-term investors. As hypothesized each component of CSP is found to be significantly positively associated with the degree of ownership by long-term investors. As expected the degree of statistical significance and magnitude of the effect is strongest for employee-related components of CSP. Although the coefficient on EMPLOYEES is larger than that on ENVIRONMENT the difference between the coefficients is not significant at the 10% level or better, however, the difference between the coefficients on employee-related CSP (EMPLOYEES) and community CSP (COMMUNITY) is statistically significant ($p < 0.10$). Among short-term investors there are no significant relationships between social performance and the degree of ownership. However, the coefficient on employee-related CSP is positive and is significantly larger than the coefficient on environmentally-related CSP. These findings provide tentative support for the hypothesized relationships between the attributes of CSR and the pattern of investment holdings. Institutional investors appear to discriminate between CSP attributes favoring employee related CSP rather

than community or (long-run investors) or environment. In both cases the revealed choice is consistent with the expected flow of benefits.

Table IV examines the form of the relationship between CSP and institutional ownership in more detail through the inclusion both of the level of CSP as captured by our multi-dimensional construct (CSRCOMP) but also through the inclusion of two dummy variables (BEST and WORST) that indicate membership of the top (i.e. most socially responsive) quartile of companies and the bottom (i.e. least socially responsive) quartile of companies. This test aims to examine whether a simple linear relationship between CSP and the extent of ownership exists or whether institutional owners tend to operate simple investment screens as earlier studies have suggested (Barnett and Salomon, 2002).

The coefficient on WORST is found to be negative and highly statistically significant ($p < 0.03$) while neither the coefficient on CSRCOMP or BEST is significant. This suggests that negative screens may play a significant role in investment decisions by long-term institutional investors. Long-term investors appear to screen out companies with poor social performance attributes from their portfolios but in other respects the degree of company social performance plays no role in influencing the degree of ownership by long-term investors.

Discussion and conclusions

This study investigates the pattern of institutional shareholding in the U.K. and its relationship with socially responsible behavior by companies within a set of ownership models which distinguish between long- and short-term investors and their largest components (Pension Funds, Life Assurance, Charities, Unit Trusts, and Investment Trusts) and incorporates both CSP and its principal attributes. The use of disaggregated institutional ownership data provides further insight into differences in the behavior of long- and short-term investors and contributes to an existing literature which analyses investment behavior within a relatively restricted investment typology (Graves and Waddock, 1994; Johnson and Greening, 1999). Our focus on the U.K. develops our understanding of institutional

TABLE III
Short- and long-run investor preferences for different types of CSP

Independent variables	Dependent variables					
	Long-term investors			Short-term investors		
CONSTANT	2.381*** (0.201)	2.453*** (0.218)	2.454*** (0.216)	6.999*** (0.201)	6.915*** (0.216)	6.957*** (0.215)
SIZE	0.063*** (0.014)	0.065*** (0.016)	0.066*** (0.015)	-0.089*** (0.014)	-0.076*** (0.016)	-0.081*** (0.015)
ROTA	0.009*** (0.001)	0.009*** (0.001)	0.009*** (0.001)	0.008*** (0.001)	0.009*** (0.001)	0.009*** (0.001)
LEVERAGE	0.001 (0.001)	0.0003 (0.001)	0.0004 (0.001)	0.0001 (0.001)	0.0001 (0.001)	0.0001 (0.001)
FREE FLOAT	1.148*** (0.139)	1.186*** (0.140)	1.182*** (0.140)	1.007*** (0.139)	1.037*** (0.139)	1.030*** (0.139)
EMPLOYEES	0.113*** (0.033)			0.032 (0.033)		
ENVIRONMENT		0.059* (0.034)			-0.025 (0.033)	
COMMUNITY			0.053* (0.028)			-0.007 (0.028)
RESOURCES	-0.241* (0.126)	-0.245* (0.127)	-0.243* (0.127)	0.021 (0.126)	0.025 (0.126)	0.023 (0.126)
GENERAL INDS	0.140 (0.090)	0.154* (0.091)	0.141 (0.091)	0.042 (0.090)	0.037 (0.090)	0.042 (0.090)
CYC. CONS GOODS	-0.123 (0.089)	-0.067 (0.088)	-0.082 (0.088)	-0.054 (0.089)	-0.035 (0.087)	-0.034 (0.088)
CYC. SERVICES	0.082 (0.069)	0.128* (0.069)	0.100 (0.069)	-0.015 (0.069)	-0.012 (0.069)	-0.004 (0.069)
NON-CYCLICALS	-0.169 (0.128)	-0.125 (0.129)	-0.152 (0.128)	-0.122 (0.128)	-0.119 (0.127)	-0.112 (0.127)
UTILITIES	-0.119 (0.147)	-0.090 (0.148)	-0.092 (0.148)	-0.004 (0.146)	0.034 (0.147)	0.023 (0.147)
FINANCIALS	-0.048 (0.078)	-0.004 (0.081)	-0.035 (0.079)	0.033 (0.078)	0.022 (0.081)	0.036 (0.078)
IT	0.102 (0.099)	0.142 (0.100)	0.118 (0.100)	-0.145 (0.099)	-0.148 (0.100)	-0.139 (0.099)
R2	31.10%	30.00%	30.00%	23.40%	23.40%	23.30%
Fstat	18.272***	17.353***	17.400***	12.410***	12.371***	12.323***
n	540	540	540	540	540	540

Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

investment behavior within a fundamentally different institutional and regulatory environment from much of the received literature.

The results suggest that long-term institutional investment is positively related to CSP providing further support for earlier studies by Johnson and Greening (1999) and Graves and Waddock (1994).

Although significant differences occur in the pattern of this relationship, dependent on the type of long-term investor, these differences do not suggest that the statutory obligation for pension funds to disclose their approach to social investment within their formal Statement of Investment Principles is reflected in larger investments in socially responsible

TABLE IV
Short-and long-term investor preferences for companies with extreme social performance

Independent variables	Dependent variables	
	Long term investors	Short term investors
CONSTANT	2.684*** (0.244)	7.017*** (0.245)
SIZE	0.055*** (0.016)	-0.083*** (0.016)
ROTA	0.009*** (0.001)	0.009*** (0.001)
LEVERAGE	0.000 (0.001)	0.000 (0.001)
FREE FLOAT	1.112*** (0.140)	1.023*** (0.141)
CSR COMP	0.020 (0.024)	-0.008 (0.024)
BEST	-0.008 (0.094)	0.035 (0.094)
WORST	-0.148** (0.068)	-0.017 (0.068)
RESOURCES	-0.226* (0.126)	0.024 (0.126)
GENERAL INDS	0.152* (0.090)	0.043 (0.090)
CYC. CONS GOODS	-0.091 (0.089)	-0.033 (0.089)
CYC. SERVICES	0.104 (0.069)	-0.002 (0.069)
NON-CYCLICALS	-0.142 (0.128)	-0.110 (0.128)
UTILITIES	-0.091 (0.150)	0.027 (0.150)
FINANCIALS	-0.002 (0.080)	0.041 (0.080)
IT	0.142 (0.100)	-0.135 (0.100)
R2	31.40%	23.30%
Fstat	16.045***	10.647***
<i>n</i>	540	540

Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

companies by pension funds. Indeed life assurance companies which have similar financial characteristics but are not subject to the same regulatory requirements are as likely to invest in socially responsible companies. However, our results indicate no statistically significant relationship between CSP and the extent of firm ownership by charities.

This is surprising given the pressure on charities to consider CSP in their investments and the pro-social agenda of charitable organizations.

Disaggregation of CSP into its constituent components suggests that the pattern of institutional investment is also related to the form which CSP takes and implicitly the relationship between each

attribute (employment, environment community), financial performance and risk. Thus employee based CSP is seen to have a stronger relationship with long-term investment than community based CSP, a finding which may reflect the positive relationship between employee-based CSP, efficiency and risk reduction. Although comprehensive assessment of a firm's social performance should encompass a range of aspects (Carroll, 2000) these results emphasize the value of disaggregation when considering the strategic choices of investors and firms.

Investigation of the impact of investment screens on the selection of stocks suggests that long-term institutional investors select through exclusion, rejecting those firms which have the worst CSP. At the same time an insignificant relationship with upper quartile social performance firms seems to suggest that poor social performance enters strongly and negatively into long-term investors share selection decisions whereas good social performance plays an insignificant role in attracting institutional investors. These findings may suggest that firm social performance may be viewed as a significant determinant of firm exposure to long-term risks. Long-term investors may therefore screen out companies with poor social performance from their portfolios because of their increased exposure to risk which could, in the long-run, lead to poorer financial performance.

The results have implications for both regulators and managers. Although a causal relationship between regulation and the pattern of investment cannot be ascribed within this cross sectional study, the results suggest that the impact of regulatory action on the pattern of institutional investment and in particular pension fund holdings has been at best limited; a pattern which is consistent with recent reports which have questioned the impact of legislation on fund managers (Courtenay, 2001). Although each of the long-term investors faced some regulatory or institutional pressure either to disclose their stance regarding social impacts of their investment or to consider the congruence of their investment policies with their broader objectives, we observed considerable differences across these investor's preferences for CSP. The fact that charities failed to demonstrate any significant preference for CSP is particularly striking and may reflect the importance of financial returns to the

voluntary sector in an environment where a declining stock market leads to reductions in the value of, and the income earned from, invested endowments.

Evidence of systematic variation in the pattern of institutional investment which reflects both CSP and its constituent parts may also suggest that CSP could provide a mechanism through which firms could mould their desired shareholder profile (Ryan and Schneider, 2002; Useem, 1996). Thus, our findings suggest that activities that promote the perceived social responsibility of firms may form part of investor relations activities undertaken so as to achieve a stable ownership base in order to reduce the likelihood that a firm's stock price is destabilized by short-term developments.

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Notes

¹ Of these \$2.3 trillion of social funds, \$2.03 trillion are "screened funds". Screened funds are funds that apply one or more social screens to investment selection. It is worth noting both that many funds employ a single screen (often involving an exclusion of tobacco companies) and that these figures may be designed to serve a promotional purpose for the social investment industry.

² It is worth noting that some recent research has questioned the extent to which Pension Funds that have adopted ethical policies have actually altered their approach to environmental and social issues in their investments (Guptara, 2001).

³ This assertion is tentatively supported by their somewhat higher equity turnover than pension funds (Eng, 1999).

⁴ Cronbach's alpha measures how well a set of items (or variables) measures a single unidimensional latent construct. It gives an indication of the degree of consistency among the survey items or variables being used to capture a construct (such as CSP). Its value increases as the average pairwise correlation between the items increases.

This has intuitive appeal – if the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct.

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Xf1 Centre for Finance and Investment,
University of Exeter,
Rennes Drive,
Exeter EX 4 4PU,
United Kingdom
E-mail: P.R.Cox@exeter.ac.uk

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Paul Cox, Stephen Brammer and Andrew Millington
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Pension Funds and Corporate Social Performance

An Empirical Analysis

Paul Cox

University of Exeter

Stephen Brammer

Andrew Millington

University of Bath

This study examines the relationship between pension fund ownership of companies and corporate social performance using a unique database of more than 500 publicly listed U.K. companies. The empirical analysis emphasizes the heterogeneous character of pension fund holdings and the multidimensional nature of corporate social performance. The results highlight that the characteristics of pension fund management are significant drivers of preferences for social performance and that employee-related aspects of social performance are preferred by pension funds.

Keywords: *pension plans; investment institutions; corporate social performance; social investing*

During the past 25 years, the ownership of large corporations has come to be dominated by institutions, such as pension funds and mutual funds, rather than individual investors (National Statistics, 2002; Ryan & Schneider, 2002; Useem, 1996). Recent evidence suggests that the growth of large-scale institutional ownership of firm stock may have reduced the flexibility of institutions, compared to individuals, to sell investments without adversely affecting their value (Ryan & Schneider, 2002, 2003). This may, in turn, have resulted in a greater focus on long-term outcomes and an increase in shareholder activism (Graves & Waddock, 1994; Johnson & Greening, 1999). These developments have prompted researchers to examine the characteristics of different types of institutional investor (Ryan & Schneider, 2002, 2003) and

the links between institutional ownership and strategic decisions concerning corporate social performance (Coffey & Fryxell, 1991; Graves & Waddock, 1994; Johnson & Greening, 1999), internationalization and diversification (Tihanyi, Johnson, Hoskisson, & Hitt, 2003), firm R & D and innovation (Bushee, 1998; David, Hitt & Gimeno, 2001), and CEO compensation (David, Kochhar, & Levitas, 1998).

Within the context of corporate social performance (CSP), corporate behavior has come under scrutiny from ethical investment research services (e.g., The Ethical Investment Research Service—or EIRIS—and KLD) and from portfolio managers as the latter have responded both to pressure to consider ethical concerns from legislators (e.g., HMSO, 1999) and investors (e.g., Denham, 1998; Sparkes & Cowton, 2004) and to the potential improvements in corporate financial performance which may flow from improved CSP. It has been suggested that CSP may reduce regulatory (McGuire, Sundgren, & Schneeweis, 1988) and legal risks (Richardson, Welker, & Hutchinson, 1999) while offering improved financial returns (Hillman & Keim, 2001; Turban & Greening, 1997; Waddock & Graves, 1997). Although most of the gains from CSP accrue in the long run, significant costs must be incurred in the short run (Graves & Waddock, 1994), suggesting that CSP will be positively related to long-term rather than short-term investment (Coffey & Fryxell, 1991; Graves & Waddock, 1994; Johnson & Greening, 1999).

However, the distinction between long-term and short-term institutional investors may mask the complexity of ownership arrangements that characterize institutional investments. Recent work by Ryan and Schneider (2002, 2003) has identified the diverse range of influences that may shape the behavior of institutional shareholders and have significant implications for attitudes toward CSP. Among other factors, they emphasize the difference between internal and external fund management, the distinction between public sector and private sector pension funds, and variations in the extent of legal and institutional pressures. The location of management may have significant implications for the relationship between institutional investment and CSP that reflect the characteristics of the fund in which management is located (Ryan & Schneider, 2002, 2003). The management of investment funds may be outsourced from a long-run beneficial owner (e.g., pension plan) to a short-run fund (e.g., mutual fund), and internal and external portfolio managers may be subject to different incentive systems (Del Guercio & Hawkins, 1999; Gimbel, 2003). Significant differences may also be expected in the behavior of public pension funds and private pension funds and their preferences for CSP. Although both public and private pension funds are long-term investors, “the performance expectations

of private pension funds have traditionally been purely financial” (Ryan & Schneider, 2002, p. 565), whereas public pension funds may place more emphasis on social and political considerations (Monks & Minow, 2001; Murphy & Van Nuys, 1994; Romano, 1993). This suggests that the impact of CSP on institutional investor decisions may vary significantly both between and within institutional investor categories.

This article investigates the relationship between CSP and the extent of pension fund stock ownership in companies. The study makes use of detailed data that disaggregate the institutional ownership in a sample of more than 500 publicly listed U.K. companies. In particular, the data permit us to distinguish between public and private pension fund holdings and identify whether holdings are managed within or outside the pension plan. The article extends and develops the literature in three ways.

First, our analysis is the first to attempt an analysis of the relationship between pension fund holdings and CSP that recognizes the heterogeneity present within pension plan management. We examine the significance of distinctions between internal and external management and public and private ownership for pension fund preferences for CSP. This approach can be contrasted with earlier empirical work that has focused either on institutional shareholders as a group (Coffey & Fryxell, 1991; Graves & Waddock, 1994) or on only a subset of pension funds (Johnson & Greening, 1999). Our approach allows us to clearly identify the influence of ownership type (public or private) and the location of portfolio management (internal or external) on revealed institutional preferences for CSP. Understanding the relationship between pension fund ownership and firm behavior is important in several regards. It is of interest to the buyers of pensions because it provides an insight into how their funds are managed. Legislative and regulatory significance arises both because of recent changes in the pressures on pension funds to develop investment policies concerning CSR issues and because general taxation is affected by the investment performance of public pension funds.

Second, the article focuses on a single category of institutional investor, pension funds within the context of the United Kingdom. Because both the extent of legal and regulatory pressure and the tendency to outsource the management of fund assets vary systematically across types of institutional investors, it is important to focus on a particular type of institutional investor to control for these effects. Pension funds are an important and relatively politicized segment of the institutional investment market (Murphy & Van Nuys, 1994), and the U.K. pension industry has been subject to significant institutional and legal pressure to consider CSP in investment

decisions during the study period. The results shed some light on the influence of legislative and institutional pressure on institutional investment preferences for CSP and show how these may be mediated through managerial structures that are subject to different incentive systems.

Third, our study extends the analysis of institutional investor preferences to encompass CSP. The article draws on financial models of the revealed preference of institutional stock holdings for corporate characteristics (e.g., Eatkins, Stansell, & Buck, 1998; Gompers & Metrick, 2001) to specify a more complete empirical model of the relationship between institutional investment and CSP that controls for a range of financial dimensions of corporate stock ownership (e.g., exposure to risk, stock liquidity, expected returns) and industry effects.

The analysis is carried out in four sections. The next section introduces the conceptual framework and outlines our hypotheses. The sample and variable definitions are then discussed in the second section, where we pay particular attention to the derivation of the U.K. data sources. The results are reported in the third section, and the implications are then discussed in a concluding section.

Conceptual Background and Hypotheses Development

This article investigates the relationship between institutional shareholdings and CSP within a model that draws on portfolio theory (Foster, 1986; Markowitz, 1952) and the typology of institutional investors generated by Ryan and Schneider (2002). Long-term institutional investors such as pension funds differ from short-term investors such as mutual funds in that they have more predictable requirements for cash outflows and much longer investment horizons (Ryan & Schneider, 2002). In addition to the purely financial aspects of institutional investor decision making, institutional investors are also subject to regulatory, institutional, and social forces (Johnson & Greening, 1999; Ryan & Schneider, 2002) that may influence the importance they attach to CSP.

Because institutional investors make investments to generate financial returns for themselves and for their customers, the nature of the relationship between corporate social and financial performance is expected to play a crucial role in shaping institutional preferences for firm social performance. A substantial literature examines the link between firm social and financial performance, and the broad consensus is that many of the financial gains from improved social performance accrue in the long run, whereas social

performance initiatives may require companies to make significant investments in the short run. Hillman and Keim (2001) argue that improved social performance can positively contribute to “long-term value creation” through the creation of “socially complex resources” (p. 127). Other authors have argued that financial performance and social performance might be positively associated in the long-run because improved social performance confers better resource competitiveness (Cochran & Wood, 1984; Hart, 1995; Waddock & Graves, 1997), lower transaction costs (Ruf, Muralidhar, Brown, Janney, & Paul, 2001), improved employee quality and motivation (Moskowitz, 1972; Turban & Greening, 1997), and enhanced customer goodwill (McGuire et al., 1988). At the same time, poor social performance may increase a firm’s financial risk (Ullmann, 1985) by signaling low management skill (Alexander & Buchholz, 1978; Spicer, 1978), uncertain and possibly increasing government regulation and fines (McGuire et al., 1988), and increased uncertainty regarding the level and variability of future cash flow (Richardson, Welker, & Hutchinson, 1999; Shane & Spicer, 1983).

CSP is generally considered to be multidimensional (Carroll, 1979; Griffin & Mahon, 1997), and a comprehensive assessment of a firm’s social performance should encompass a range of aspects (Carroll, 2000). In addition, existing empirical and conceptual contributions have argued that different types of corporate social activity have different implications for firm financial performance (Griffin & Mahon, 1997; Hillman & Keim, 2001). Hillman and Keim (2001) argue that aspects of firm social performance that help to propagate good relationships with key stakeholder groups such as employees can lead to long-term competitive advantages that confer improved financial performance and find some strong empirical support for their view. Hart (1995) indicates that many environmental policies such as “end-of-pipe” approaches, source reduction, and process innovation tend to be fixed-cost investments, having physical asset properties (Russo & Fouts, 1997), with benefits spread over many years. Environmental performance also forms a significant focus for external stakeholder pressure. In contrast, community contributions have the shortest-term payoff (Carroll, 1979), are largely external to the company, and are not directly linked to areas that are subject to regulation and/or legal action in the company.

The preceding discussion suggests that, on balance, the benefits of CSP, whether financial or through risk reduction, are long run rather than short run, whereas the costs must be carried in the short run. However, the returns to investment in CSP and the period in which they accrue are dependent on the particular attributes (employment, environment, community) that underpin CSP. Pension funds are also subject to significant stakeholder

pressures that may be expected to affect the relationship between the pattern of investment and CSP. Continuing legislative pressure has resulted in significant changes to the legal framework in which pension funds operate. U.K. pension funds were required to state their investment principles in 1995 and subsequently to identify the role of social, environmental, and ethical considerations in investment planning (HMSO, 1999). Public interest in socially responsible investment (SRI) is reflected in National Opinion Poll survey results that suggest that 73% of respondents supported ethical pensions (Denham, 1998). At the same time, the increasing salience of environmental issues and the growing strength of environmental pressure groups (Dean, 2002) have placed greater pressure on companies and pension funds to encompass social and in particular environmental performance in their investment decisions.

Pension Fund Investment and CSP Pension Funds Holdings

Our basic model hypothesizes that the relationship between pension fund holdings and CSP varies systematically by type of ownership (public- and private-sector pension funds) and location of portfolio management (inside and outside the pension fund). The relationship between pension fund holdings and CSP is explored within a series of regression models in which the dependent variable reflects the ownership (public or private) and location of portfolio management (internal or external) of pension fund holdings. Although CSP is expected to have a differential impact in each of these models, no *a priori* relationship is expected between CSP attributes (community, employee, environment) and different types of pension fund holding (internal or external, private or public). Regression results are presented for different CSP characteristics, and the conceptual discussion is, therefore, restricted to the relationship between aggregate CSP and different types of pension fund.

As highlighted above, pension funds have been subject to regulatory, institutional, and social pressures in the United Kingdom to consider aspects of business social responsibility in investment decisions. These pressures have encompassed legal requirements to identify the role of social, environmental, and ethical considerations in investment planning (HMSO, 1999), the setting of social agendas by industry trade bodies (e.g., Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2005), and significant public interest in SRI (Ethical Investor, 1999).¹ In addition, earlier evidence has suggested that there is a positive relationship between the degree to which a company is owned by

pension funds and its social performance (Johnson & Greening, 1999). Following these discussions, we hypothesize that:

Hypothesis 1: There is a positive association between the extent of company ownership by pension funds and CSP.

Internal Versus External Fund Management

Investment portfolio managers may be internal to the pension fund or undertaken by independent external fund management companies (Davis & Steil, 2001, p. 114). Approximately 20% of U.K. and about one third of European pension funds by value are internally managed (Davis & Steil, 2001, p. 154). Internal and external management may also be mixed within the same institution. The relationship between an institutional investor and its portfolio managers is governed by mandates that specify the extent of responsibility being delegated to the portfolio manager and may also prescribe other aspects of the portfolio manager's behavior, including applying limitations to stock size, liquidity, growth, dividend, leverage, valuation, and investment proportion. Internal and external mandates differ in several respects, including length, form of compensation, and performance expectation.

External mandates typically last 3 years (Davis & Steil, 2001; Gimbel, 2003) and are evaluated at each quarter and year-end (Lakonishok, Shleifer, Thaler, & Vishny, 1991). Poor performance is rapidly punished by loss of mandate (Del Guercio & Tkac, 2002). Because portfolio management firms are compensated as a percentage of assets under management (Del Guercio & Tkac, 2002), they have strong incentives to maximize the value of the fund, there being no limit on the amount of fees paid to the portfolio management firm (Herman, 1963). Strict performance expectations accompany most external mandates and are commonly specified in terms relative to the performance of comparable funds, in terms of a certain excess return above the industry mean, or by reference to beating an overall market index (Davis & Steil, 2001, p. 155). Switching costs of sacking an existing manager, of liquidating a whole portfolio, and of searching for and hiring new management discourage institutions from changing portfolio managers after a single bad year (Gimbel, 2003).

In contrast, internal mandates are managed by salaried employees who are typically responsible only for their employer's money (Gimbel, 2003). The decision to outsource would radically alter the working practices of the institution and would encounter high redundancy costs (Del Guercio & Hawkins,

1999). Fund underperformance is therefore less likely to be punished by loss of mandate, and internal managers are more likely to view their investment mandate in a more stable and permanent context. Fees levied by an internally managed pension plan are not based on the value of assets. Compensation of officers, directors and portfolio managers is largely independent of the value of assets managed, and, in the case of internal public-sector portfolio managers, it is rare to receive a performance-related bonus (Monks & Minow, 2001, p. 124).

The incentive systems facing internal and external portfolio managers are therefore subject to significant differences. Compared to their internal counterparts, external portfolio managers have sharper incentives to focus on the financial performance of the fund and typically face shorter investment horizons. Because the benefits of CSP are associated with improved financial performance in the long run, we hypothesize that:

Hypothesis 2: The association between the extent of pension fund ownership in a company and CSP will be stronger and more positive for internally managed pension funds than for externally managed pension funds.

Public and Private Sector Pension Funds

Pension funds may be used to finance the retirement plans of public-sector (public pension funds) or private-sector (private pension funds) employees. Funded public-sector retirement schemes are some of the largest funds comprising local authority employers and nationalized and previously nationalized industries such as UK Coal (Lex, 2000). Because public funds may be backed by government or statutory bodies that raise income through taxation, funding problems are solved at a public level.² This characteristic, coupled with the preferences of fund sponsors and the beneficiaries of individual pension plans, suggests that the investment choices of public pension funds may not be narrowly constrained by economic factors.

Monks and Minow (2001) argue that public pension funds are not strictly motivated by economic returns. Murphy and Van Nuys (1994) suggest portfolio managers and trustees of public assets lack incentives to maximize fund value and expect that their investment strategies include political motivations. Romano (1993) argues that political pressures on public pension funds may in fact harm investment performance; however, Del Guercio and Hawkins (1999) fail to find empirical support for this. Having the longest investment holding period of any institutional investor (Ryan & Schneider,

2002) and being the most patient form of capital raises the possibility that long-term strategies, such as those associated with CSP, enter significantly into public pension fund investment decisions.

In contrast, private pension funds comprise single employer and multiemployer (largely union) retirement plans. Ryan and Schneider (2002, 2003) suggest that private pension funds are unlikely to pursue activist policies because of “the golden rule of nonintervention with fellow corporations” (Ryan & Schneider, 2002, p. 565) and because companies avoid voting against each other because of the danger of retaliation (Brown, 1998; Conrad, 1988; Roe, 1994). Under these conditions, the relationship between CSP and pension fund investments is likely to be determined by share selection. In the case of defined benefit (final salary) pension schemes, the company (sponsor) bears complete responsibility for a shortfall in value (Ryan & Schneider, 2002). Ultimately, this must come from profits. For defined contribution schemes, the pension fund company bears no responsibility for unexpectedly low terminal fund values, and the employee bears the shortfall risk (Ryan & Schneider, 2002). Although the company is not obligated to ensure adequate investment fund value, persistent poor performance may motivate employees and policy holders to pressure management for greater company contributions, and therefore poor performance may still threaten future corporate profitability.

The risk that top-up payments may have to be made to make good shortfalls in private pensions may depress the share price of a listed company and may therefore jeopardize managerial security via the market for corporate control. This could exert pressure on private sector funds to maximize financial returns. Management pressure for greater employer contributions in the case of underperforming defined contribution schemes and unit linked annuities may lead to similar pressure for financial returns. Performance expectations of private pension funds are, therefore, traditionally purely financial, having higher portfolio turnover than public funds (Brancato, 1995; Eng, 1999; Ryan & Schneider, 2002).

In summary, the financial performance of public pension funds is subject to less scrutiny and pressure than that of private pension funds. This suggests that public pension funds are more likely to favor CSP both because they have more scope to pursue noneconomic objectives and because the financial gains from CSP are essentially long run. We therefore hypothesize that:

Hypothesis 3: The association between the extent of pension fund ownership in a company and CSP will be stronger and more positive for public funds than for private funds.

Control Variables

A range of control variables was included in the analysis. Following earlier work, a range of firm attributes is expected to play an important role in shaping the pattern of institutional ownership, including firm size (Badrinath, Gay, & Kale, 1989; Eatkins et al., 1998; Gompers & Metrick, 2001; Graves & Waddock, 1994; Johnson & Greening, 1999), leverage (Chaganti & Damanpour, 1991; Duke & Hunt, 1990; Myers, 1984; Weston, Siu, & Johnson, 2001), current financial performance (Graves & Waddock, 1994; Johnson & Greening, 1999), expectations concerning future financial performance (Gompers & Metrick, 2001), typical trading volumes and bargain sizes (Eatkins et al., 1998; Gompers & Metrick, 2001), the extent and type of risk associated with stock ownership (Badrinath et al., 1989; Chan & Lakonishok, 1995; Del Guercio, 1996; Eatkins et al., 1998; Sias, 1996), and industry (Commerzbank, 2002).

Method

Sample

Our sample was drawn from the constituent companies of the FTSE All-Share index. The All-Share index is the broadest index of U.K. listed stocks, representing more than 98% of the U.K. market capitalization. At the date of our study, the All-Share index comprised approximately 700 companies (excluding investment trusts) drawn from a wide spectrum of business activities. Our analysis requires that data concerning the social performance of this sample of companies be matched to accounting and company ownership data. Social performance data were obtained from EIRIS, the United Kingdom's oldest independent research company specializing in the assessment of CSP for investors. Accounting data were extracted from DataStream. Ownership data were drawn in June 2002 from a share ownership analysis database of more than 2,000 listed U.K. firms managed by one of the United Kingdom's largest company registrars. Missing data reduced our data set to a sample of 540 firms. This provides us with the largest share ownership and social performance research sample so far examined and one that captures 80% of the largest 678 U.K. quoted firms between 2001 and 2002.³ Table 1 provides a point of comparison with the existing literature (and especially with Ryan & Schneider, 2002, p. 557) by providing a breakdown of the beneficial ownership of

Table 1
Beneficial Ownership of U.K. Shares, 2002 to 2004

	2002 (%)	2003 (%)	2004 (%)
Rest of the world	32.1	32.3	32.6
Insurance companies	19.9	17.3	17.2
Pension funds	15.6	16.0	15.7
Individuals	14.3	14.9	14.1
Unit trusts	1.6	2.0	1.9
Investment trusts	1.8	2.3	3.3
Other financial institutions	10.5	11.1	10.7
Charities, churches, etc.	1.1	1.2	1.1
Private nonfinancial companies	0.8	0.7	0.6
Public sector	0.1	0.1	0.1
Banks	2.1	2.2	2.7
Total	100.0	100.0	100.0

Source: National Statistics.

London Stock Exchange listed companies during the period of 2002 to 2004. The data in Table 1 demonstrate the high degree of concentration of stock ownership among institutional investors and the importance of non-U.K. investors in total stock ownership. Much of this overseas ownership is also held by investment institutions. Regarding the split of ownership between public and private pension fund holdings in the United Kingdom, roughly one third of total pension fund holdings are held by public pension funds, with two thirds held by private sector pension funds.

Dependent Variable Definition

Given that the model is fundamentally one of investor choice, the dependent variables analyzed are designed to capture the preferences of public and private pension funds and internally managed and externally managed funds for socially responsive attributes among the sample companies. In addition to identifying the beneficial owner of an investment fund (e.g., the pension fund), our database of company ownership identifies the location of the portfolio manager of the fund. We first identified all the pension fund holdings in the sample companies. If the beneficial owner was a public pension fund, it was coded *public*; if it was a private pension fund, it was coded *private*. The location of the portfolio manager was then used to determine whether the fund was internally or externally managed, and the extent of

internally and externally managed funds in each of the sample companies was identified. Nine dependent variables were created, each of which is defined as the ratio of total holdings by a given group of pension fund investments to the total number of shares in the company, adjusted for the free float.⁴ Following our earlier discussion and to separate the effects of ownership (public or private) and location of management (internal or external), the nine variables are defined as the proportion of free-float adjusted share capital owned respectively by all pension funds, public pension funds, private pension funds, externally managed pension funds, internally managed pension funds, externally managed private pension funds, internally managed private pension funds, externally managed public pension funds, and internally managed public pension funds.

Independent Variable Definitions

The key independent variable is CSP. CSP is a fundamentally multidimensional construct (e.g., Carroll, 1979), and a large number of relevant dimensions have been identified in existing studies. For example, several studies have identified dimensions of social performance that relate to employee relations, community relations, issues concerned with women and minorities, environmental responsibility, and product safety (e.g., Griffin & Mahon, 1997; Hillman & Keim, 2001; Johnson & Greening, 1999). These, and some other, operationalizations of the CSP construct fundamentally derive from the identity of the particular stakeholders (employees, customers, communities, the environment) being addressed by the firm's behavior. In a similar way, our measures focus on firm behavior toward salient stakeholder groups. The social performance data we analyze were obtained from EIRIS who specializes in the measurement of CSP against a consistent and objective set of criteria, principally for the consumption of investors. It offers the largest and most complete multidimensional social performance coverage of UK firms, covering issues relating to employment, the environment, community, human rights, and supply chain management, and the data have been analyzed in several published studies (see Brammer & Pavelin, 2004, 2006). Because of the limited availability of data regarding the last two CSP dimensions, we will restrict our attention to the first three dimensions of social performance.

EIRIS uses publicly available information, such as annual reports and company publications, in addition to direct surveys of sample companies to construct a set of relatively objective criteria relating to corporate social impacts and their management. These criteria are used to devise ratings of

broad dimensions of social responsiveness. These ratings are comparable to the method adopted in the construction of the KLD's "strengths"; however, the EIRIS data do not comprise a corresponding set of "weaknesses." Hence, although our analysis conforms to the approach suggested by Mattingly and Berman (2006), the emphasis on strengths has to be borne in mind. For example, our indicator of employee responsibility is based on five separate components relating to health and safety systems, training and development, equal opportunities practices, employee relations, and job creation and security, each of which is in turn based on a wide range of objective criteria. EIRIS provide a text-grade rating for each component (e.g., the quality of equal opportunity systems), and, following the general approach used by Graves and Waddock (1994) for KLD data, we translated these into a number-grade rating. For each area of social performance, text-rating schemes are constructed to reflect the underlying data. For example, the text rating for the quality of equal opportunity systems ranges from "little or no evidence" of such systems, which is reflected in a firm's inability to provide information on factors such as employee demography or flexible working arrangements, to "very clear evidence" of systems, as reflected in the presence of assigned responsibility for equal opportunities to a senior manager, policy monitoring, a percentage of women and minority managers that is at least four fifths the figure for the percentage of these groups in its workforce as a whole, and the provision of a wide range of flexible working arrangements.

In a similar manner, we construct indicators of environmental (based on four separate components relating to the quality of environmental policies, systems, reporting, and performance) and community responsiveness (a single item). Reflecting the number of text categories available for each component, we coded each of the environment text scales into 5-point scales, coded each of the employee responsibility text scales into 3-point scales, and created a 4-point scale for community responsiveness. In each case, the codes begin with a value of 1, and larger numbers indicate better social performance. To summarize, our measures of the three dimensions of social performance are community performance (COMM), graded 0 to 3; environmental performance (ENVCON)—policies, systems, reporting, and performance, each category graded 0 to 4 (environmental impact score out of 16); employee performance (EMPCON)—health and safety, training and development, equal opportunities, employee relations, job creation, and job security, each category graded 0 to 2 (employment responsibility score out of 12). To arrive at a single aggregate measure (termed social performance), we summed the three scores, having normalized each to a 0 to 3 grading. This generates an overall score out of 9.

The financial control variables were estimated using data obtained from DataStream or were obtained from Barra Inc., a leading risk specialist. Following Johnson and Greening (1999), firm size (SIZE) is measured by the natural logarithm of company assets. Logged values are used to minimize the impact of extreme values and reduce heteroscedasticity. Leverage (LEVERAGE) is measured by the ratio of total debt to total assets (Graves & Waddock, 1994). Following Johnson and Greening (1999) and Graves and Waddock (1994), we measure profitability (ROTA) by the ratio of pretax profits to total assets. We include one measure of risk associated with stock ownership. Following Badrinath, Gay and Kale (1989) we select Beta, a gauge of the expected response of a stock to the overall market. Beta is provided by Barra Inc. Following Gompers and Metrick (2001), Eatkins et al. (1998), and Badrinath et al. (1989), we measure trading volume as annual trading volume (TRADING VOLUME) in a firm's stock, divided by the total number of shares outstanding. Bargain size (BARGAIN SIZE) is measured as the average bargain size traded, divided by the total number of shares outstanding. Trading volume and bargain size data were obtained from monthly London Stock Exchange trading files, and we constructed annualized averages using monthly data.

Market perceptions concerning future stock performance were captured through the inclusion of a variable, GROWTH, that is based on two dimensions of corporate growth, growth in assets and earnings, both measured during a 5-year period, also obtained from Barra Inc.

The free-float proportion (FREE FLOAT) is estimated by stock market index publishers to reflect availability of stock in the market for public investment. FTSE calculates free float as a proportion of 1, where 1 is complete tradable stock availability and 0 is no tradable stock availability. We use the mean free float of eight quarters from the start of 2001 to measure the overall tradability of sample firms.

Finally, we defined a set of industry dummy variables to account for the possibility that ownership of firms across different industries may be influenced by the general relationships industries have with expected risk and return but also by the negative and positive investment screens of social investors. Industry sectoral dummies were created using the FTSE Global Industry Classification System, which groups listed stocks into ten economic groups: basic industries, general industries, resource extraction industries, cyclical consumer good industries, cyclical services, noncyclical goods, noncyclical services, utilities, financials, and information technology industries. The basic industry sector was chosen as the comparator sector.

Method of Estimation

The extent of ownership in a particular company by a specific category of institutional investors is a censored variable in the sense that it cannot take negative values. Ordinary least squares (OLS) estimations of the influences on the extent of institutional ownership in companies would introduce sample selectivity biases, and, therefore, the use of a truncated regression technique is necessitated to avoid the biased and inconsistent parameter estimates that can be associated with OLS estimation. A variety of approaches exist that overcome such statistical difficulties (see Greene, 1993). However, the most commonly adopted solution is to estimate a Tobit model of the extent of pension fund ownership in companies by maximum likelihood. We proceed with the estimation of a Tobit model. The basic Tobit model estimated here takes the following form:

$$y_i^* = X_i\beta + \varepsilon_i$$

where an observed dependent variable, y_i (which is equal to y_i^*) is generated if $X_i\beta + \varepsilon_i > 0$ and is otherwise equal to zero. X_i is a vector of explanatory variables that are hypothesized to influence pension fund investment decisions.

Results

Table 2 presents descriptive statistics and correlation coefficients for the independent variables.⁵ The magnitudes of the correlation coefficients suggest some limited evidence of multicollinearity, but at these levels it is unlikely to present significant statistical difficulties. An exploratory analysis of variance inflation factors indicated that they are all less than 4, a threshold commonly accepted in empirical work (Greene, 1993; Hair, Anderson, Tatham, & Black, 1998).

The Tobit results for aggregate pension funds (Model 1) and the disaggregated results for externally (Model 2) and internally managed (Model 3) pension funds and for public (Model 4) and private (Model 5) pension funds are presented in Table 3. Consistent with Hypothesis 1, we find that the relationship between CSP and aggregate pension funds is significant and positive ($p = .061$), supporting earlier findings that suggest that institutional investors (Graves & Waddock, 1994) and in particular pension funds (Johnson & Greening, 1999) are more likely to favor CSP. However, the location of portfolio management (internal or external) and the type of pension fund (private or public) are both found to have a significant impact on the relationship between pension fund holdings and CSP.

Table 2
Descriptive Statistics and Correlation Coefficients

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Size	13.256	1.817											
2. Free float	0.929	0.152	.176										
3. ROTA	3.778	16.658	-.010	.024									
4. Leverage	23.090	18.559	.230	.033	-.062								
5. CSP	5.767	2.184	.643	.230	.051	.139							
6. COMM	0.950	0.930	.604	.195	.007	.131	.909						
7. ENVCON	2.976	3.349	.640	.214	.089	.138	.873	.699					
8. EMPCON	4.596	3.895	.449	.202	.050	.080	.855	.674	.630				
9. Growth	-0.135	0.830	-.125	-.141	-.040	-.058	-.220	-.192	-.258	-.134			
10. Beta	0.899	0.309	.170	.021	-.347	-.101	.045	.060	.001	.056	.168		
11. Bargain size	-9.366	1.429	-.759	.041	.000	-.081	-.634	-.604	-.603	-.457	.067	-.255	
12. Trading volume	-2.712	0.773	.384	.621	-.101	.023	.380	.319	.348	.326	-.036	.402	-.297

Table 3
The Relationship Between Company Characteristics
and Pension Fund Holdings

Independent Variables	Dependent Variable				
	All	Externally	Internally	Public	Private
	Pension Funds	Managed Pension Funds	Managed Pension Funds	Pension Funds	Pension Funds
	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	.042 (.051)	.042 (.037)	-.002 (.028)	.008 (.017)	.032 (.043)
Size	.007 (.003)**	.006 (.002)***	.001 (.002)	.002 (.001)**	.005 (.002)**
Free float	.021 (.025)	-.001 (.018)	.023 (.014)*	.009 (.008)	.014 (.021)
ROTA	.0008 (.0002)***	.0004 (.0001)***	.0005 (.0001)***	.0003 (.0001)***	.0006 (.0002)***
Leverage	.0003 (.0002)**	.0001 (.0001)	.0002 (.0001)**	.00006 (.0001)	.0003 (.0001)**
CSP	.003 (.002)*	-.0001 (.001)	.003 (.001)***	.0001 (.001)	.003 (.002)**
Growth	.001 (.003)	-.004 (.002)	.005 (.002)**	-.001 (.001)	.002 (.003)
Beta	.025 (.014)*	.018 (.010)*	.008 (.008)	.004 (.005)	.021 (.011)*
Bargain size	.000 (.004)	.001 (.003)	-.001 (.002)	-.0003 (.001)	.0001 (.003)
Trading volume	.013 (.006)	.011 (.004)***	.001 (.003)	.004 (.002)**	.008 (.005)*
Resources	-.036 (.017)**	-.022 (.012)*	-.014 (.009)	-.010 (.006)*	-.026 (.014)*
General industries	.004 (.012)	.002 (.009)	.002 (.007)	.002 (.004)	.002 (.010)
Cyclical consumer goods	-.040 (.021)*	-.038 (.015)**	-.002 (.012)	-.006 (.007)	-.034 (.018)*
Cyclical services	-.018 (.013)	-.010 (.009)	-.007 (.007)	-.001 (.004)	-.016 (.011)
Noncyclical goods	.006 (.010)	.002 (.007)	.004 (.005)	.004 (.003)	.003 (.008)
Noncyclical services	-.038 (.017)**	-.030 (.012)**	-.007 (.010)	-.004 (.006)	-.033 (.014)**
Utilities	-.016 (.021)	-.014 (.015)	-.002 (.012)	-.003 (.007)	-.012 (.018)

(continued)

Table 3 (continued)

Independent Variables	Dependent Variable				
	All Pension Funds	Externally Managed Pension Funds	Internally Managed Pension Funds	Public Pension Funds	Private Pension Funds
	Model 1	Model 2	Model 3	Model 4	Model 5
Financials	-.020 (.011)*	-.022 (.008)***	.003 (.006)	-.007 (.004)**	-.012 (.009)
IT	-.013 (.015)	-.010 (.011)	-.003 (.008)	-.003 (.005)	-.009 (.012)
No. of observations	541	541	541	541	541
Log likelihood	739.9	918.6	1056.7	1318.0	837.7
ANOVA-based fit measure	.222	.182	.139	.159	.182

Note: Figures in parentheses are standard errors.

*Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level.

The results provide strong support for the hypothesized relationship between the location of portfolio management and revealed preferences for CSP (Hypothesis 2). The results indicate that there is no statistically significant relationship between the extent of externally managed fund ownership in firms and their social performance ($p = .968$). In contrast, there is a strongly significant and positive relationship between company social performance and the degree to which firm stock is owned by internally managed funds ($p = .000$). It appears, therefore, that the stronger incentives for achieving short-term financial performance faced by external fund managers reduce their preference for ownership of stock in highly socially responsive companies.

In relation to other characteristics of companies, the preferences of internal and external fund managers are found to differ in several respects. In particular, these externally managed pension funds appear to a stronger preference for larger companies, as evidenced by a significantly positive relationship between stock holdings and firm size ($p = .003$), for firms with larger trading volumes ($p = .005$), and for firms with higher betas ($p = .061$) when compared to internally managed funds. Internally managed funds

exhibit greater preferences for growth stocks ($p = .015$) and highly leveraged companies ($p = .031$) than externally managed funds, but both funds exhibit strong positive preferences for firms with higher operational profitability ($p = .004$ and $p = .000$, respectively).

Regarding the hypothesized relationship between the differences between public and private pension funds concerning their preferences for CSP (Hypothesis 3), our evidence provides no support for our hypothesis. Although the relationship between CSP and the extent of private pension fund ownership in firms was positive and significant ($p = .028$), no significant relationship was found between CSP and the extent of public pension fund ownership in firms ($p = .828$). Public pension funds do not, therefore, appear to have a stronger preference for CSP than private pension funds.

To investigate this finding further and to explore the interrelationship between the location of management (internal or external) and the type of pension fund (public or private), four additional dependent variables that reflect the available combinations of management location and ownership type were defined. The TOBIT results are shown in Table 4. In Model 8, the dependent variable is defined as the extent of private pension fund ownership under external portfolio management. In Model 9, the dependent variable is defined as the extent of private pension fund ownership under internal portfolio management. The results emphasize the central importance of the location of fund management control for revealed preferences for CSP. CSP is significant and positive when the fund is under internal control ($p = .001$) but insignificant when the fund is under external management ($p = .681$). The implications for public pension funds are revealed in Model 6 (the dependent variable is defined as the extent of public pension fund ownership under external portfolio management) and Model 7 (the dependent variable is defined as the extent of public pension fund ownership under internal portfolio management). The results emphasize, again, the dominance of the location of management over the type of pension fund. CSP is positive and significant when public pension funds are internally managed ($p = .039$) but negative and insignificant when they are managed externally ($p = .358$). It is, however, important to notice that contrary to prior expectations (Hypothesis 2), the coefficient on CSP is significantly lower ($p < .05$) for public internally managed pension funds (Model 7) than for private internally managed pension funds (Model 9).

Table 5 investigates the relationship between the type of pension fund and the constituent parts of CSP. Once again there are significant differences between internally and externally managed pension funds, with a

Table 4
The Relationship Between Company Characteristics
and Pension Fund Holdings

Independent Variables	Dependent Variable			
	Public Pension Funds		Private Pension Funds	
	Externally Managed	Internally Managed	Externally Managed	Internally Managed
	Model 6	Model 7	Model 8	Model 9
Constant	-.011 (.016)	.015 (.008)*	.049 (.029)*	-.018 (.024)
Size	.003 (.001)***	-.0005 (.0005)	.0035 (.002)**	.001 (.001)
Free float	.0050 (.008)	.005 (.004)	-.005 (.014)	.019 (.012)
ROTA	.0002 (.0001)***	.0001 (.00003)***	.0002 (.0001)*	.0004 (.0001)***
Leverage	.00001 (.0001)	.00005 (.00002)**	.0001 (.0001)	.00013 (.0001)*
CSP	-.001 (.001)	.0006 (.0003)**	.0004 (.001)	.0029 (.001)***
Growth	-.002 (.001)*	.001 (.001)	-.002 (.002)	.004 (.002)**
Beta	.005 (.004)	.0008 (.002)	.015 (.008)*	.007 (.006)
Bargain size	-.0001 (.001)	.00001 (.001)	.001 (.002)	-.001 (.002)
Trading volume	.004 (.002)**	.001 (.001)	.008 (.003)**	.001 (.003)
Resources	-.009 (.005)*	-.0001 (.003)	-.012 (.010)	-.013 (.008)*
General industries	.002 (.004)	.0005 (.002)	.000 (.007)	.002 (.006)
Cyclical consumer goods	-.011 (.007)*	.006 (.003)	-.027 (.012)**	-.008 (.010)
Cyclical services	.0002 (.004)	-.001 (.002)	-.009 (.007)	-.006 (.006)
Noncyclical goods	.003 (.003)	.001 (.002)	.000 (.006)	.004 (.005)
Noncyclical services	-.007 (.005)	.0024 (.003)	-.023 (.010)**	-.009 (.008)
Utilities	-.002 (.006)	.000 (.003)	-.010 (.012)	-.002 (.010)

(continued)

Table 4 (continued)

Independent Variables	Dependent Variable			
	Public Pension Funds		Private Pension Funds	
	Externally Managed	Internally Managed	Externally Managed	Internally Managed
	Model 6	Model 7	Model 8	Model 9
Financials	-.008 (.003)**	.001 (.002)	-.013 (.006)**	.002 (.005)
IT	-.002 (.004)	-.001 (.002)	-.008 (.008)	-.001 (.007)
No. of observations	541	541	541	541
Log likelihood	1312.2	1657.9	1038.5	1136.3
ANOVA-based fit measure	.130	.052	.126	.134

Note: Figures in parentheses are standard errors.

*Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level.

positive and significant relationship ($p < .05$) between EMPCON and internally managed private and public pension funds. Neither COMM nor ENVCON is significant in any of the models, and the difference between EMPCON and COMM is significant in each case ($p < .05$). The difference between EMPCON and ENVCON is significant ($p < .05$) in the public pension fund model. As in the earlier models, the distinction between public and private pension funds does not appear to be related to CSP. In general, internally managed pension funds appear to discriminate between CSP attributes favoring employee-related CSP rather than community or environmental dimensions of firm social performance.

Discussion and Conclusions

This study has examined the relationship between the extent of pension fund stock ownership in companies and their social performance. The empirical analysis emphasizes the heterogeneous character of these investments by distinguishing both between public and private pension funds and between whether they are internally or externally managed. Although earlier work has focused on beneficial institutional ownership, this article suggests that the location of fund management control may have a significant impact on the pattern of institutional investments and its relationship with CSP.

Table 5
The Relationship Between Company Characteristics
and Pension Fund Holdings

Independent Variables	Dependent Variable			
	Public Pension Funds		Private Pension Funds	
	Externally Managed	Internally Managed	Externally Managed	Internally Managed
	Model 6	Model 7	Model 8	Model 9
Constant	-.010 (.016)	.015 (.009)*	.045 (.030)	-.013 (.025)
Size	.003 (.001)***	-.0004 (.0005)	.0036 (.002)**	.001 (.001)
Free float	.0045 (.008)	.005 (.004)	-.003 (.014)	.019 (.012)
ROTA	.0002 (.0001)***	.0001 (.00003)***	.0001 (.0001)	.0004 (.0001)***
Leverage	.00001 (.0001)	.00005 (.00002)**	.0001 (.0001)	.00014 (.0001)*
COMM	.001 (.001)	.0004 (.001)	-.0034 (.003)	.0009 (.002)
ENVCON	-.0003 (.0004)	-.00014 (.0002)	.001 (.001)	.001 (.001)
EMPCON	-.0003 (.0003)	.0003 (.0002)**	.0003 (.001)	.001 (.0005)**
Growth	-.002 (.001)*	.001 (.001)	-.002 (.002)	.004 (.002)**
Beta	.005 (.004)	.0003 (.002)	.012 (.008)	.007 (.007)
Bargain size	.000 (.001)	.000 (.001)	.001 (.002)	-.001 (.002)
Trading volume	.004 (.002)**	.001 (.001)	.007 (.003)**	.000 (.003)
Resources	-.009 (.005)*	.000 (.003)	-.013 (.010)	-.013 (.008)
General industries	.002 (.004)	.0004 (.002)	.001 (.007)	.002 (.006)
Cyclical consumer goods	-.012 (.007)*	.006 (.004)	-.027 (.012)**	-.007 (.010)
Cyclical services	.000 (.004)	-.001 (.002)	-.010 (.007)	-.006 (.006)
Noncyclical goods	.003 (.003)	.001 (.002)	.000 (.006)	.004 (.005)
Noncyclical services	-.007 (.005)	.0021 (.003)	-.024 (.010)**	-.009 (.008)

(continued)

Table 5 (continued)

Independent Variables	Dependent Variable			
	Public Pension Funds		Private Pension Funds	
	Externally Managed	Internally Managed	Externally Managed	Internally Managed
	Model 6	Model 7	Model 8	Model 9
Utilities	-.003 (.006)	.000 (.003)	-.012 (.012)	-.001 (.010)
Financials	-.008 (.003)**	.000 (.002)	-.013 (.007)**	.002 (.005)
IT	-.002 (.005)	-.001 (.002)	-.006 (.009)	.000 (.007)
No. of observations	541	541	541	541
Log likelihood	1310.0	1655.9	1040.2	1134.6
ANOVA-based fit measure	.131	.053	.127	.135

Note: Figures in parentheses are standard errors.

*Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level.

The results indicate that internally and externally managed funds have different preferences for firm social performance. The extent of company ownership by internally managed funds is positively related to CSP, whereas no relationship was found between CSP and the degree of ownership by external portfolio managers. The apparent disparity between the social performance of internally managed and externally managed funds may reflect the greater pressure (and incentives) for short-run returns inherent in the contracts that govern the relationship between external fund managers and pension funds. Faced with greater incentives for short-term financial performance than their internally managed counterparts, external fund managers allocate their funds away from companies that make significant investments in social responsiveness, the financial returns from which arise only in the long term. In this sense, share selection may be more important than investor activism in the sample of U.K. companies investigated. The results may also reflect the relative importance of CSP to shareholder activists. External portfolio managers may have greater potential than internal portfolio managers to behave actively (Ryan & Schneider, 2002, 2003) but may choose to pursue objectives that directly relate to short-term economic performance (e.g., executive pay) and their operating mandates.

Although the existing literature (Johnson & Greening, 1999; Romano, 1993; Ryan & Schneider, 2002, 2003) suggests both that public pension funds are more likely to be active shareholders and that they will have greater freedom to pursue long-term and social objectives, private pension funds were found to have a stronger and positive relationship with CSP. This result is particularly surprising in the context of the substantial fall in stock market values that characterized the study period. It is exactly under these conditions that private sector funds might be expected to face greater pressure for short-term financial performance relative to public pension funds, which may be underwritten by the public sector. Three factors may underpin and partially explain this result. First, public pension funds are more likely to be externally managed than private pension funds, and external funds appear to be dominated by short-run demands. Second, the explanatory power provided by the model for internally managed public pension funds is relatively low, and in particular the performance of the financial variables is poor. This may suggest that the investment decisions of public sector pension funds are subject to a range of nonfinancial determinants. Third, to the extent that these decisions are based on ethical or political considerations, their impact will not be reflected in the model because the definition of CSP is restricted to three elements: employee responsibility, environmental responsibility, community responsibility.

Disaggregation of CSP into its constituent components suggests that the pattern of institutional investment is also related to the form that CSP takes. Thus, employee-based CSP is seen to have a stronger relationship with the location of fund management (internal or external) than ownership type (public or private). Although environmental issues have achieved considerable salience, this is not reflected in the revealed preferences of pension funds; neither community nor environmental performance were found to play a significant role. Although comprehensive assessment of a firm's social performance should encompass a range of aspects (Carroll, 2000), these results emphasize the value of disaggregation when considering the strategic choices of investors and firms.

The results suggest that corporate managers face a complex financial stakeholder environment where long-term investors have distinct and different revealed preferences for CSP. Although the results provide broad support for earlier work that suggests pension fund holdings are positively associated with firm social performance (e.g., Johnson & Greening, 1999), our evidence suggests that the preferences of pension funds for social performance is contingent on whether the fund is internally or externally managed. Although U.K. pension funds have been subject to legislative and

institutional pressure (HMSO, 1999; Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2005) for SRI, positive preferences for CSP appear to be restricted to the most visible investment decisions, those that are made internally. If legislators wish to encourage corporate preferences for socially responsible behavior through institutional investors, they might consider mechanisms through which external investment mandates might be influenced to encourage SRI.

This study has been concerned with revealed preferences for CSP rather than the mechanisms through which firms may achieve these goals (e.g., share selection, investor activism). Future work could consider the mechanisms through which institutional investors achieve their goals and the relationship between these strategies (share selection or investor activism), the investor typologies developed by Ryan and Schneider (2002, 2003), and institutional differences between the United States and the United Kingdom. Recent work suggests that U.K. investors may use share selection to exclude firms with weak CSP records (Cox, Brammer, & Millington, 2004), whereas U.S. investors may be more likely to pursue these goals through share activism. In developing this work, further exploration of the EIRIS measures of CSP is necessary. In particular, exploring ways to construct variables analogous to the KLD's "weaknesses" would considerably strengthen the analysis and offer a way to examine the preferences of institutions regarding negative aspects of corporate activities.

Notes

1. National Opinion Poll survey results suggest that 77% of respondents supported ethical pensions.

2. For example, one London borough in 2003 stated it had had to increase local property taxes to narrow its pension deficit (Bruce & Targett, 2003). In other cases—for example, the national postal service's additional annual pension payments of UK£100 million in 2003—this requirement will be met through general taxation (Lex, 2003).

3. U.S. stock ownership data are commonly organized by investor (portfolio manager in investment bank, portfolio manager in bank trust, portfolio manager in pension fund) rather than by beneficiary (e.g., pension plan, life insurance, charity, investment trust; Del Guercio, 1996, p. 36). One limitation with this unit of observation is that institutional portfolio managers typically include all beneficial client accounts when making the required quarterly 13F disclosure to the Securities and Exchange Commission. This aggregates the assets of different beneficiaries within a single disclosure despite the likelihood that portfolio managers invest their assets reflecting the potentially diverse preferences of the various institutional owners (Del Guercio, 1996, p. 38). A second limitation is that it is unclear if the management of assets is internal or external to the institution. The extent to which the U.S. stock was owned by investment advisors market grew from 23% in 1980 to 69% in 1996 (Gompers & Metrick, 2001). However, because investment advisors invest funds both for their own clients and on

behalf of institutional investors, the data suggest that many groups of institutional investors control declining proportions of the U.S. stock market (Gompers & Metrick, 2001). This is only true in the sense that institutional investors have partially relinquished the investment authority for the management of their assets to investment advisors rather than investing the assets themselves. Because our data are disaggregated both by beneficial owner and by portfolio manager, it is possible to more accurately study the distinction between internal and external management of institutional assets.

4. The free float proportion is the fraction of shares tradable within the market place for a given stock. Adjusting firms share capital for free float overcomes situations where an investor owns a proportion of a line of stock that is unlikely to be for sale and so ensures an accurate representation of the proportion of a firm's stock that is available for institutional investors to own (Hamon & Jacquillat, 1999). This adjustment reflects government holdings in privatization stocks, firm-to-firm trade investments and cross-holdings, significant long-term holdings by founders, directors and directors' families, employee share schemes, and portfolio investment subject to lock-in clauses (FTSE, 2003a, 2003b).

5. The unusually large standard deviation on profitability and its relatively low mean compared to other studies (e.g., Adams & Hardwick, 1998) reflects the losses made by a subset of Internet companies during the period under consideration. Because these companies form part of the population of stocks from which pension funds were selected, they were retained in the sample.

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Paul Cox is lecturer in finance at the University of Exeter. His research interests include corporate social performance in relation to institutional investment and market measures of financial performance. Prior to academia, he had a career as fund manager at an investment bank in the city of London.

Stephen Brammer is a senior lecturer in business economics and deputy director of the Centre for Business, Organisations and Society at the University of Bath. His current research addresses empirical issues in the business and society field from the perspective of strategic management. His recent publications include articles in *Journal of Management Studies*, *Journal of Business Research*, *Business & Society*, and *Financial Management*.

Andrew Millington is reader in business and society and director of the Centre for Business, Organisations and Society at the University of Bath. His research interests include corporate community involvement and international aspects of corporate social responsibility. He has published widely, including papers in *Journal of International Business Studies*, *Journal of Management Studies*, *Human Relations*, *Cambridge Journal of Economics*, and *Journal of Business Ethics*.

Pension Fund Manager Tournaments and Attitudes Towards Corporate Characteristics

PAUL COX, STEPHEN BRAMMER AND ANDREW MILLINGTON*

Abstract: This paper explores the relationship between the tournament incentives of pension fund managers and the characteristics of equities they choose to hold. Using a comprehensive data set on pension fund portfolio holdings, we determine the intensity of fund manager tournaments by sorting pension funds into portfolios based on the number of concurrent managers each pension fund employs. We then investigate which corporate characteristics are preferred by each of these portfolios by estimating share selection models that include a range of corporate characteristics that are expected to shape the returns to investment in stocks over the short and long run. We find that the intensity of the tournament faced by fund managers plays a significant role in shaping preferences over corporate characteristics. Managers facing more intense tournaments exhibit significantly weaker preferences for attributes associated with long run payoffs, such as social performance and growth potential, and significantly stronger preferences for short term attributes, such as operational efficiency, when compared to managers that face weak or no tournament incentives.

Keywords: pension funds, tournaments, investment management, social investing

1. INTRODUCTION

During the past 20 years there has been a dramatic increase in the extent to which the stock of major corporations is owned by institutional investors such as pension funds, mutual funds and investment trusts, rather than private individuals (Useem, 1996; Ryan and Schneider, 2002; Klumpes and McCrae, 1999; and Blake, 2003). Institutional investors have become particularly significant in the United Kingdom where recent estimates suggest that collectively they control approximately 70% of the stock in the largest companies (National Statistics, 2002). One consequence of the

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Address for correspondence: Paul Cox, Centre for Finance and Investment, Xfi Building, University of Exeter, Rennes Drive Exeter EX4 4ST, UK
e-mail: p.r.cox@exeter.ac.uk

growing importance of institutional investment is that the control of corporate stock has been increasingly concentrated into the hands of a relatively small number of professional fund managers who determine how institutional funds are invested. This change has sparked considerable interest regarding the role that fund manager skills play in shaping fund performance (e.g., Brown et al., 1997) and the extent to which professional portfolio managers adapt their investment behaviour to the economic incentives they are provided (Dow and Gorton, 1997; Goldman and Slezak, 2003; and Blake et al., 2002).

Conceptual and empirical research has begun to investigate these incentive structures. Some of this work has investigated aspects of manager tournaments, whereby managers contest their portfolio performance relative to others with the aim of avoiding a loss of existing accounts or to win additional mandates (Ehrenberg and Bognanno, 1990; Khorana, 2001; Brown, Harlow and Starks, 1996; Chevalier and Ellison, 1997; Meyer and Vickers, 1997; Gorjaev, Palomino and Prat, 2000; Koski and Pontiff, 1999; Chen and Pannachi, 2001; and Acker and Duck, 2006). However, much of this work has focused on tournaments in the context of mutual funds (Brown, Harlow and Starks, 1996; Chevalier and Ellison, 1999; Gorjaev, Palomino and Prat, 2000; and Khorana, 2001) where manager performance is highly visible and is made available according to reporting standards designed to facilitate inter-fund comparability. In the context of mutual funds, empirical evidence suggests that managers mould their portfolio holdings over time to either consolidate or win performance relative to results posted by other portfolio managers, and that investment manager behaviour is sensitive to incentives (Brown, Harlow and Starks, 1996). However, comparatively little research has explored the importance of incentive effects in the context of other types of institutional investor. A notable exception is Acker and Duck (2006) which develop a theoretical model of the risk taking behaviour of fund managers and test it using data relating to UK investment trusts. Their analysis suggests that fund managers that are doing badly compared with peers tend to adopt riskier investment strategies as the time at which their performance is evaluated approaches. Another exception is Blake et al. (2002) which explores the role played by fee structures in shaping pension fund asset allocations and performance. Their findings, that there is a significant degree of clustering in fund performance, indicate that fee structures play only a very weak role in shaping asset allocations, and highlight the homogeneity of investment styles relative to similar research carried out in other countries (Blake et al., 2002; and Lakonishok et al., 1992). This research suggests both that exploring other aspects of the incentive systems faced by pension fund managers may yield important findings and that research in non-US contexts might identify important cross-country differences.

In this paper, we examine the relationship between the variation in tournament incentives faced by pension fund managers and their preferences for a variety of corporate characteristics. Pension funds are the single largest group of institutional investors and are comparatively socially and politically visible compared with other areas of the institutional investment market (Murphy and Van Nuys, 1994). Pension funds long investment horizon and fiduciary responsibility to tomorrow's pensioners should make them a patient form of capital that is ideal for investing long and overseeing public corporations (Porter, 1992; and Ryan and Schneider, 2002). Within this context UK pension funds have been subject to regulatory, institutional and social pressures to consider aspects of business social responsibility in investment decisions. These pressures have encompassed legal requirements to state their investment principles and

subsequently to identify the role of social, environmental and ethical considerations in investment planning (Occupational Pension Schemes, 1999), the setting of social agendas by industry trade bodies (e.g., Just Pensions, 2001; and Local Authority Pension Fund Forum, 2002) and significant public interest in socially responsible investment (*The Ethical Investor*, 1999).¹

Although earlier research suggests that pension funds have a preference for firms with corporate characteristics which are associated with long term performance, such as better social and environmental performance, higher research and development expenditures, and good corporate governance (Waddock and Graves, 1997; Johnson and Greening, 1999; Porter, 1995; and Bushee, 1998), other evidence indicates that the behaviour of pension fund managers is little different from short-term investors and a product of the incentives they are provided. The UK Government finds that:

the timescale over which portfolio manager performance is to be judged . . . is a real cause of short-termism in fund managers' approach to investment (Myners, 2000 p.2)

and that the relationship:

between institutional investors and their clients, notably pension and life funds . . . set fund managers' incentives, behaviour and attitudes (Department for Work and Pensions, 1998, Chapter 8).

Under these conditions the extent to which incentive systems, and in particular tournament intensity, affects the time horizon within which investments are made may be expected to have implications for portfolio composition, pension fund preferences for corporate social performance (CSP) and therefore, the effectiveness of regulatory and institutional pressures to consider CSP within the investment decision.

This paper investigates the relationship between CSP and the pattern of pension fund stock ownership in companies making use of detailed data which disaggregate the institutional ownership in a sample of over 500 publicly listed UK companies. In particular, the data permit us to identify the portfolio composition of pension fund managers facing different tournament intensities. In each case we were able to identify the ultimate beneficial owner (i.e. the final owner) and the investor (i.e. the investment manager) of stock holdings, thus overcoming the difficulties that arise when using US data because of aggregating different clients' holdings, within a single SEC disclosure rather than separately reporting each client account (Del Guercio, 1996; and Gompers and Metrick, 2001), and the incomplete coverage of state pension funds who are not required to file their security holdings via 13-F statements with the SEC (Badrinath and Wahal, 2002). Using the data we are able to document the variation across pension funds in the allocation of their equity investments to single, or multiple, fund managers. Thus we are able to shed light on the relationship between tournament intensity and the ways in which pension funds typically allocate their assets.

The paper extends and develops the literature in two ways. First, this is the first study to critically evaluate the impact of tournament intensity on the pattern of pension fund assets. Although earlier studies have focused on the relationship between tournament intensity and portfolio management in mutual funds (Brown, Harlow and Starks, 1996), recent work highlights the disparate characteristics of different institutional investor

1 NOP survey results suggest that 77 per cent of respondents supported ethical pensions.

categories (Ryan and Schneider, 2002), suggesting that incentive systems may have different impacts on different types of institutional investors. Blake et al., (2002) argue that UK pension funds provide an under-explored and significant context within which to explore the importance of incentive effects on asset allocations since pension fund managers in the UK are highly unconstrained in their asset allocations, and adopt relatively homogeneous investment styles characterised by balanced fund management.

Secondly, our analysis is the first to attempt an analysis of the relationship between pension fund holdings and CSP which recognizes the heterogeneity present within pension fund management. We examine the significance of tournament intensity for fund manager attitudes towards corporate social performance. This approach can be contrasted with earlier empirical work which has focused either on institutional shareholders as a group (Graves and Waddock, 1994; and Coffey and Fryxell, 1991) or only a subset of pension funds (Johnson and Greening, 1999). These contributions are significant in that they provide insights into the role played by incentive systems in shaping the ability of pension funds to play a long-term stewardship role in general, and consider social and environmental aspects of firm performance in investment in particular. Since our analysis reveals the way pension funds are actually invested, the study is of interest to the buyers of pensions because it provides an insight into how their funds are managed. Legislative and regulatory significance arises both because of recent changes in the pressures on pension funds to develop investment policies concerning corporate social responsibility (CSR) issues and because general taxation is affected by the investment performance of public pension funds.

The paper is structured as follows. The next section discusses the conceptual background to the study and outlines the hypothesis. Section 3 introduces the sample, methods, data and variables. Section 4 reports the findings and theoretical and policy implications outlined in the concluding section.

2. CONCEPTUAL BACKGROUND AND HYPOTHESES DEVELOPMENT

In this paper we examine the relationship between the tournament incentives faced by pension fund managers and their attitudes towards corporate social and environmental performance within a model that draws on portfolio theory (Fabozzi and Markowitz, 2002; Bodie et al., 2006; and Merton, 2003). Portfolio theory suggests an investor will appraise the expected rate of return and the level of risk of each financial asset in relation to his or her own time preference when making portfolio decisions. Whilst the risk and return of each financial asset is determined in the market, the time preference of a professional investment manager may be influenced by the frequency over which his or her performance is evaluated with the associated risks of account loss. These time horizon determinants and the period within which the benefits of different corporate characteristics are realised are expected to play a crucial role in determining the specific balance of firm characteristics that pension fund managers prefer to hold in their portfolios. We first discuss the way in which tournament incentives shape the preferences of fund managers concerning the financial performance attributes of their portfolios, before examining the nature of the relationships between tournament incentives and specific corporate characteristics including risk, and social and environmental performance.

(i) Tournaments, Incentives and Fund Manager Objectives

A pension fund may delegate the security selection of its entire fund to a single portfolio manager, as with the Bank of England and Navy Army & Air Force Institute pension funds, or apportion the management of its equity assets to a number of different portfolio managers, as with the UK Universities Superannuation Scheme and many UK local authority pension funds (Gimbel, 2003). Most often, pension funds apportion all or part of their fund to more than one portfolio manager (Fabozzi and Markowitz, 2002; Bodie et al., 2006; Merton, 2003; Lakonishok, Shleifer, Thaler and Vishny, 1991) and request the different managers to select from the same subset of securities rather than different subsets of securities. Significantly, portfolio managers are not generally expected to make selections that fit well with the remainder of the fund and usually each manager will have no knowledge of the composition of the rest of the fund, only of who the other managers are (Blake et al., 2002). Therefore, individual managers often have considerable discretion in determining the composition of the portfolios they manage (Blake et al., 2002). Empirical evidence suggests that there is considerable variation across countries and time in the average number of competitors faced by an individual pension fund manager. For example, a survey of UK pension funds found those employing a split mandate structure hired, on average, three managers in 1995 while those in the United States hired an average of thirteen managers (Targett and Wine, 2000). A different US study in the same year found an average of nine hired managers (Del Guercio and Tkac, 2002). Other surveys record multiple mandates involving twenty (Del Guercio and Tkac, 2002), thirty-one (Malca, 1975), and one hundred and twelve (Sharpe, 1981) different managers.

When a pension fund hires multiple managers it creates a manager tournament.² Financial performance relative to peers and relevant market indices is the dominant metric of pension fund manager performance and is typically evaluated quarterly and reviewed at each year end generating three month and twelve month performance windows over which manager performance is judged (Lakonishok, Shleifer, Thaler and Vishny, 1991; and Myners, 2000). Periodic replacement of managers following underperformance is a normal part of portfolio management (Ennis, 2001; and Del Guercio and Tkac, 2002). Manager replacement rates vary according to the research sample but mandates often do not run for the full three year terms that they are typically drawn for. Del Guercio and Tkac (2002) find that 22% of pension plan sponsors terminated an external manager mandate in 1995, Myners (2000) that 33% of UK pension plan sponsors terminated an external manager mandate in the 12 months to September 2000, Greenwich Associates (1998) that 42% hired and fired a manager in 1997, and Philips (1997) that 50% of US sponsors terminated a mandate in 1996. According to the Chairman of the board of trustees of the UK's Universities Superannuation Scheme:

If a manager has a bad year you live with that. But if he has two bad years, then you really start to get into them (Gimbel, 2003).

² As highlighted by an anonymous referee, competition across the fund management industry generates a broader tournament within which all fund managers compete. In effect, our argument is that the specific tournaments that are created within funds add to this general competitive pressure. The higher transaction costs associated with shifting mandates across pension funds compared with shifting mandates within a given fund could be one reason to expect these competitive pressures to be additive.

Myners (2000) finds that pension funds employing more concurrent managers devote more resources to manager selection and evaluation, and reallocate their funds across managers more frequently. Thus, the importance of a manager's relative performance and the risk of account loss increase with the total number of managers in a fund. A manager that is one amongst many, uncertain as to when a mandate may be lost, will rationally assume that dismissal could be after any quarter's performance and thus select stocks with characteristics that will realise their value over very short term periods (Myners, 2000). Relative underperformance also raises a manager's firing rate, with the loss of an account leading to revenue losses and bad publicity (Grinold and Rudd, 1987). Underperformance is particularly damaging for a portfolio manager's likely future inclusion on a pension fund's interview short-list, these lists most often being compiled by investment consulting firms on the basis of a variety of past performance criteria (Myners, 2000).

This discussion suggests that the pressure upon individual pension fund managers to demonstrate good performance increases with the number of concurrent managers a fund has employed. The probability of mandate termination is slim for the manager of an entire fund since no other managers directly select from the same subset of securities, relatively few resources have been expended by the fund on manager selection and monitoring, and switching costs are therefore relatively high. In contrast, there is a high probability of rapid manager replacement following underperformance in a many manager contest (Del Guercio and Tkac, 2002). As a fund places more managers into the same tournament, the investment time horizon of a manager may shorten and thus the importance they attach to short term financial performance increases. We therefore hypothesise that:

H₁: Increasing tournament intensity will be positively associated with a focus on short term returns.

(ii) Tournaments and Fund Manager Attitudes to Corporate Characteristics

Having established that pension fund manager tournaments sharpen the incentives such managers face to deliver good financial performance over relatively short time horizons, we turn to an examination of the link between tournaments and fund manager attitudes concerning specific corporate characteristics, beginning with a discussion of the importance of corporate risk characteristics before considering the importance of firm social performance.

Earlier results suggest that both incentive structures and attitudes to risk are likely to vary significantly between mutual and pension funds. While mutual funds are subject to a disproportionate reward for exceptional performance (Del Guercio and Tkac, 2002), and are unlikely to lose investors when they under perform, discrete performance benchmarks and adherence to stated investment policies play a central role in employment decisions in pension funds (Del Guercio and Tkac, 2002). These differences have significant implications for fund manager attitudes to risk. Because fund managers are less likely to benefit from exceptional performance but are subject to performance benchmarks within an institutional system where managers may be fired for deviating from stated investment policies both diversifiable and systematic risk may prove unattractive to pension fund managers (Del Guercio and Tkac, 2002). This suggests that increasing competition in multiple manager tournaments is unlikely

to encourage risk taking; indeed increasing competition may result in behaviour which is risk averse as managers' satisfice within incentive structures which reward the attainment of minimum benchmarks and compliance with stated investment policies. We therefore hypothesise:

H₂: Tournament intensity will be negatively related to undiversifiable or systematic risk.

There is a broad consensus that social performance initiatives require companies to make significant investments in the short run that cost the firm financial, or other, resources. Environmental initiatives such as 'end-of-pipe' approaches, source reduction, design for life, and process innovation (Hart, 1995) are typically fixed cost investments, having physical asset properties that depreciate over several years (Russo and Fouts, 1997). Employee programmes may incur costs ranging from the minor (e.g., by implementing flexitime or job-sharing), to the moderate (e.g., the costs associated with paid parental leave), or even the high (e.g., a Johnson & Johnson childcare facility is reported to have cost US\$5 million in 1991, Woolsley, 1992).

Whilst these and other good neighbour and philanthropic investments involve specific short run costs, they are also hypothesised to have countervailing benefits. 'Socially complex resources' (Hillman and Keim, 2001, p.127) are created and these lead to 'long-term value creation' (Hillman and Keim, 2001, p.127). For example, investments that reduce environmental impacts help firms to avoid penalties imposed by regulators for failed environmental compliance (Lanoie, Laplante and Roy, 1998). Other financial gains from environmental investments may arise from consumer preferences for environmentally sound products and services (Richardson, Welker and Hutchinson, 1999), enhanced customer goodwill and loyalty (McGuire, Sundgren and Schneeweis, 1988), and improved overall efficiency that lowers transaction costs (Porter and van der Linde, 1995; Cochran and Wood, 1984; Waddock and Graves, 1997; Hart, 1995; and Ruf et al., 2001). Similarly, workplace investments in employee-focused social performance may yield a combination of improved employee retention, productivity, morale, attractiveness to talented employees, influence in outside lobbying, and decreased hiring costs, absenteeism, strikes, community opposition, and legal action related to work safety or new factory openings (Turban and Greening, 1997; and Waddock and Graves, 1997). Corporate philanthropy may directly improve a firm's external profile through better neighbourhood relations and outside associations. These broadcasting effects advertise the firm and provide it reputation and visibility (Fry, Keim and Meiners, 1982). A safer firm may also result (Ullmann, 1985). Environmental investments may lead to fewer negative environmental events, less negative visibility, risk of consumer boycotts and pollution monitoring by regulators with powers to impose fines, pollution abatement costs and remove operating licences. Work place investments may lower the threat of employee related legal action and resultant poor public relations.

Since most of the gains from CSP accrue in the long run while tournament intensity encourages portfolio managers to pursue short run investment objectives we hypothesise that:

H₃: Tournament intensity is negatively associated with the social and environmental performance of firms.

(iii) Control Variables

In our model of stock selection we control for a number of firm characteristics for which institutional preferences have been identified in existing studies. These comprise investment liquidity, firm size, pension fund size, leverage, operating efficiency and industry (Hessel and Norman, 1992; Graves and Waddock, 1994; Johnson and Greening, 1999; Eakins, Stansell and Buck, 1998; Gompers and Metrick, 2001; Dyl and Anderson, 2002; Chan and Lakonishok, 1995; Hessel and Norman, 1992; Rosenberg, 1974; Badrinath, Gay and Kale, 1989; Chaganti and Damapour, 1991; and Duke and Hunt, 1990).

3. METHODS

Sample

To examine whether the degree to which competition exists between fund managers within a given pension fund influences their preferences over corporate characteristics, we examine the pattern of fund holdings in the constituents of the FTSE AllShare index, a market capitalization weighted index representing over 98% of the UK market and a commonly used investment benchmark. The number of FTSE AllShare constituents varied from 675 to 704 between January 2001 and December 2002 as changes in the market capitalization and liquidity of firms caused some to leave and others to enter during the period. Because fund managers often invest in a stock in anticipation of its inclusion on an index and continue to hold a stock that has recently dropped out of an index, we include all FTSE AllShare index constituents that were present during any quarter from the beginning of 2001 to the end of 2002. This yielded an initial sample of 746 individual firms. Pension fund stock holding data were drawn in June 2002 from a stock ownership database covering 2,000 UK listed firms. This database is professionally maintained and continuously updated to reflect daily changes in ownership as recorded by equity transaction information on the London Stock Exchange.

This time period is chosen for two reasons. First, it follows an episode of significant stock market decline and volatility and thus may coincide with listed firms placing greater value on long term outcomes such as CSP. Second, disaggregated institutional ownership data are not available prior to this date. Occupational pension schemes had started to consider liability driven and absolute return generating strategies in response to equity market falls and the deficits that were exposed as a consequence. However, these were at an early stage in 2002, with the vast majority of pension assets still managed on a relative basis, with some specialist mandates, and it is only in the last few years that liability driven investment has grown in popularity (UBS Global Asset Management, 2006).

The particular profile of pension fund held stock drawn in June 2002 is a reflection of investment decisions made months, even years prior to this date. To capture this decision context we follow Falkenstein (1996) and collect almost all data as time series extending back to 2001 that are then averaged. For example, trading volume, trading depth and free float are averaged data that commence 2001 and end June 2002. Missing institutional holding data reduced the sample from 746 to 677 firms. Missing social and environmental company characteristics further reduced this to 576. Missing control variable data, mostly relating to DataStream, resulted in a final sample of 541 firms.

(i) Dependent Variables

Ownership data for the sample firms was drawn in June 2002 from a corporate ownership database maintained by the UK's largest company registrar, Computershare. It is usual for large UK companies to delegate share registry and investor account management to a third party registrar so that they may meet their obligation to keep track of shareholders under the 1985 Companies Act. Computershare continuously updates shareholder account information for 2,000 UK firms, including those it is not registrar for, via daily changes in ownership as recorded by equity transaction information on the London Stock Exchange. The data are commercially available and used extensively by investor relations departments to understand investor demographics and by investment professionals to monitor ownership changes and to source stock for trading. For every holder of stock the database records the following information: name of the pension plan (e.g., Universities Superannuation Scheme), country of domicile (e.g., UK), name of the fund manager (e.g., Fidelity), name of the security (e.g., British Airways), and the number of shares held. A relational database was used to query the pension plan share holding information. Pension funds were then divided into six types according to the number of fund managers involved in their management which can vary between one and six.³ Six separate dependent variables were then identified which correspond to the number of fund managers (1-6) participating in a given pension fund tournament. Each dependent variable is then defined as the ratio of total stock in a given company held by pension fund tournaments of a given size (1-6) to the total number of shares in the company adjusted for free-float.⁴

(ii) Independent Variables

Risk, expected return, and investment time horizons are captured using data from BARRA Inc, an investment software and research company. Total risk (RISK) is measured as the variance of stock price returns over the previous 60 months. Beta is the slope of 60 month stock returns regressed on the market after reflecting changes to the company's financial structure, capitalisation and business operations that have occurred within the calculation window (BETA). Investment time horizons are captured through the inclusion of two variables, GROWTH and VALUE. Barra measures growth by identifying firms which are expensive relative to the overall market as measured by five year average earnings per share growth; such firms tend to be associated with relatively fast growing markets such as biotechnology, information technology and alternative fuels. Value is measured as a weighted composite of earnings to price, book value to price, and cash flow to price.

Social and environmental performance data are drawn from The Ethical Investment Research Service (EIRIS), the UK's oldest independent research company specializing

3 In aggregate, portfolios managed by 1-6 managers account for over 87% of the total pension fund holdings in the stocks analysed. Portfolios for numbers of managers in excess of 6 therefore account for such small proportions of stock ownership as to present statistical difficulties.

4 The free float proportion is the fraction of shares tradable within the market place for a given stock. Adjusting firms' share capital for free float overcomes situations where an investor owns a proportion of a line of stock that is unlikely to be for sale and so ensures an accurate representation of the proportion of a firm's stock that is available for institutional investors to own (Hamon and Jacquillat, 1999). This adjustment reflects government holdings in privatisation stocks, firm-to-firm trade investments and cross holdings, significant long-term holdings by founders, directors and directors' families, employee share schemes and portfolio investment subject to lock-in clauses (FTSE, 2003a and 2003b).

in the assessment of corporate social performance for investors, having the largest and most complete multidimensional social performance coverage of UK firms with more than 75% of UK ethical funds subscribing to its data. For the social performance variable (SOCIAL PERFORMANCE) a composite of environment, employment and community dimensions of corporate social performance is created. Employment comprises six aspects: health and safety, training and development, equal opportunities, employee relations and job creation and security. Environment comprises four aspects: environmental policies, systems, reporting and performance. Community has only one aspect. Each employment aspect has three text categories, each environmental aspect has five text categories and community has four text categories. Following the general approach used by Graves and Waddock (1994) the EIRIS text-grade rating for each measure is translated into a number-grade rating starting at 1 and increasing with greater social performance. Numeric transformation means employment data are coded 1 to 3, environmental data coded 1 to 5 and community data coded 1 to 4. To arrive at a single social and environmental composite the number-grade ratings within each of employment, environment and community are summed to give an employment score out of 18, environment score out of 20 and community score out of 4. Lastly, the score on each category is normalized to 4 so as to effectively equal weight them. This generates a possible range of scores from 3 to 12 and a Cronbach's Alpha of 0.92.⁵

(iii) Control Variables

Trading liquidity of investments is captured through the inclusion of three variables using data from the London Stock Exchange (LSE) and FTSE. The LSE monthly trading files provide liquidity data. Following Falkenstein (1996), Del Guercio (1996), Gompers and Metrick (2001), Eakins, Stansell and Buck (1998) and Badrinath, Gay and Kale (1989) average monthly trading volume (TRADING VOLUME) is measured as shares traded per month divided by the total number of shares outstanding, however, we adjusted the number of shares outstanding to account for the free float. Trade depth is reflected in the average proportion of shares outstanding traded per bargain (BARGAIN SIZE), is measured as the number of shares traded per bargain during 2001 and 2002 divided by the free float adjusted total number of shares outstanding. FTSE calculates free float as a proportion of 1 where 1 is complete tradable stock availability and 0 is no tradable stock availability. The mean quarterly free float since start 2001 to end June 2002 is used (FREE FLOAT). In order to explore the role played by pension fund size in shaping asset allocations, we included a measure of the average size of pension funds holding stock in each particular firm (PENSION FUND SIZE) weighted according to the size of their holdings as a further control variable.

Accounting data were drawn from DataStream. Following Johnson and Greening (1999) and Badrinath, Gay and Kale (1989) firm size is measured as the value of

⁵ Cronbach's alpha measures how well a set of items (or variables) measures a single one-dimensional latent construct. It gives an indication of the degree of consistency among the survey items or variables being used to capture a construct (such as CSP). Formally, it is given by the formula $\alpha = (N * R) / (1 + (N - 1) * R)$ where N is the number of items being used to generate the construct and R is the average pairwise correlation between the items. Values of Cronbach's alpha lie in the range 0-1 with higher values indicating a greater degree of reliability and with values in excess of 0.7 commonly being viewed as providing a sufficiently high level of correspondence (Hair et al., 1998).

company assets at accounting year ends. Following Johnson and Greening (1999), Graves and Waddock (1994), Hessel and Norman (1992) and Eakins, Stansell and Buck (1998) return on assets (ROA) is measured as the ratio of pre-tax profits to total assets at accounting year ends. Following Graves and Waddock (1994), Hessel and Norman (1992), Eakins, Stansell and Buck (1998) and Badrinath, Gay and Kale (1989) leverage is calculated as total company debt divided by total company assets at accounting year ends. Natural log values are used for trading volume and depth, and firm size in order to minimize the impact of extreme values and reduce heteroscedasticity.

Industry is measured using the FTSE Global Industry Classification System which groups listed stocks into 10 economic groups: basic industries, general industries, resource extraction, cyclical consumer goods, cyclical services, non-cyclical consumer goods, non-cyclical services, utilities, financials and information technology industries. The basic industry sector was chosen as the comparator sector.

(iv) Estimation Technique

The estimation model used is:

$$PH_i = \alpha + \beta X_i + e_i,$$

Where PH_i is the per cent of held stock in firm i by a class of pension fund and X_i is the vector of determinants of stock demand. Although some funds hold short positions the vast majority do not. In fact for no stock does the entire sample have a net short position. Institutional constraints on short positions and a maximum long position of 100% cause PH to vary between 0 and 1 and imply that a censored model is the most appropriate form. Thus the equation is estimated using the commonly adopted Tobit model of the form:

$$y_i^* = \beta X_i + e_i, \quad \begin{array}{l} y = 0 \text{ if } y^* \leq 0 \\ y = y^* \text{ if } y^* \geq 0. \end{array}$$

An OLS model, not reported, using heteroscedasticity consistent (White) standard errors with intercept included is also estimated and has similar results.

4. RESULTS

We begin the discussion of our results by describing the state of tournament choices made by pension funds in our sample companies. Table 1 reports the number of concurrent fund managers hired by the 2,335 pension funds that held stock in the sample companies and the proportion of corporate stock owned on average in those companies by funds employing a given number of fund managers. On average, a pension fund hired approximately 2.2 fund managers but this masks considerable diversity across funds. Over 56% of the funds, responsible for investing just over 48% of pension fund assets employed only a single fund manager and therefore removed all tournament incentives. Those funds that do employ tournament incentives hire, on average, 3.8 fund managers, this figure being roughly comparable to that reported by (Targett and Wine, 2000), and are responsible for the management of 52% of pension fund assets. Those hiring the most concurrent managers tend to be the largest pension

Table 1
The Distribution of Different Intensities of Fund Manager Tournament Within Pension Funds

<i>Number of Managers a Pension Fund is Using to Invest in UK Equities</i>	<i>Number of Pension Funds Using This Mandate Structure</i>	<i>Average Proportion of Equity Owned for Each Mandate Structure (%)</i>
1	1,334	7.70
2	466	3.54
3	208	0.97
4	128	1.53
5	57	0.12
6	60	0.95
7	17	0.29
8	15	0.34
9	13	0.03
10	4	0.10
11	11	0.04
12	5	0.06
14	1	0.18
15	10	0.00
16	4	0.02
19	2	0.03
20	15	0.00
22	3	0.04
All	2,353	15.94

funds. In the US these pension funds include California State Teachers, California Public Employees, State of Virginia, IBM, Bell, and General Motors, and in the UK the Electricity Supply, Diageo and Strathclyde regional authority.

Next, we examine the descriptive statistics and correlations between the key variables analysed, which are reported in Table 2. The negative relationship between firm size and trade depth indicates institutions can achieve their desired portfolio weight in a stock from the purchase of a small proportion of the stock outstanding of the largest firms (Falkenstein, 1996; and Graves and Waddock, 1994). The magnitude of the correlation coefficients suggests that our analysis is unlikely to suffer from significant multicollinearity and the variance inflation factors that were estimated and do not exceed four in any case (Greene, 1993; and Hair et al., 1998).

Our TOBIT analyses are presented in Table 3. Overall the results provide significant support for the expected relationships outlined in the preceding discussion. The insignificance of firm size in all of the models suggests that the overall model is well specified. There is little reason for investors to care for firm size. Rather investors may care less for size itself than for the characteristics of size: liquidity, and risk.

Models (i)-(vi) document the influences on the pattern of pension fund ownership in sample companies for funds with a number of concurrent managers ranging from 0 to 5 and, in doing so, reveal the preferences of the managers of these portfolios for corporate characteristics. The intensity of tournament faced by fund managers increases as we move from the left to the right of Table 3. It is useful to benchmark against the revealed preferences of portfolio managers that face no tournament incentives (as described in

Table 2
Descriptive Statistics and Correlation Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
	<i>Mean</i>	<i>Standard</i>	<i>Deviation</i>															
(1) % Ownership by funds employing 1 manager	0.077	0.050	–															
(2) % Ownership by funds employing 2 managers	0.035	0.021	0.288	–														
(3) % Ownership by funds employing 3 managers	0.010	0.010	0.224	0.232	–													
(4) % Ownership by funds employing 4 managers	0.015	0.010	0.148	0.406	0.467	–												
(5) % Ownership by funds employing 5 managers	0.001	0.002	0.026	0.049	0.067	0.068	–											
(6) % Ownership by funds employing 6 managers	0.009	0.009	0.260	0.174	0.095	0.074	0.312	–										
(7) Company Size	12.945	1.887	0.244	0.117	0.104	-0.042	0.086	0.317	–									
(8) Free Float	0.913	0.171	0.166	0.108	0.108	0.070	0.055	0.058	0.176	–								
(9) Rota	0.330	30.333	0.108	0.108	0.090	0.102	0.181	-0.071	-0.010	0.045	–							
(10) Leverage	21.803	18.450	0.149	0.149	0.085	0.063	0.061	0.029	0.230	0.036	-0.031	–						
(11) Social Performance	5.738	2.190	0.257	0.257	0.167	0.086	-0.042	0.030	0.642	0.232	0.068	0.142	–					
(12) Risk	0.445	0.110	-0.158	-0.158	-0.022	-0.080	-0.078	0.034	-0.355	-0.141	-0.419	-0.232	0.597	–				
(13) Growth	-0.071	0.857	-0.008	-0.008	-0.127	-0.057	0.028	-0.035	-0.125	-0.141	-0.042	-0.059	0.128	0.153	–			
(14) Value	0.405	0.855	-0.141	-0.141	0.021	0.007	0.007	-0.077	0.081	0.070	0.030	0.148	-0.198	-0.177	-0.252	–		
(15) Beta	0.911	0.310	0.090	0.090	0.085	0.046	-0.068	0.102	0.170	0.016	-0.350	-0.106	0.480	0.771	0.168	-0.208		
(16) Bargain Size	-9.239	1.408	-0.212	-0.212	-0.048	-0.033	0.103	-0.117	-0.759	0.042	0.007	-0.080	0.052	0.170	0.067	0.166	-0.256	
(17) Trading Volume	-2.756	0.805	0.247	0.247	0.123	0.118	0.001	0.145	0.384	0.621	-0.083	0.024	0.125	0.116	-0.036	-0.034	0.399	-0.297

Notes:

Variable definitions: COMPANY SIZE is the natural logarithm of the total value of company assets; ROTA is measured as the ratio of pre-tax profits to total assets; LEVERAGE is the ratio of total debt to total assets; FREEFLOAT is measured by the mean quarterly free float between January 2001 and June 2002; CSRCOMP is a composite indicator of firm performance regarding environmental, employee and community issues; RISK is equal to the variance of stock price returns over the previous 60 months; BETA is the slope of 60 month stock returns regressed on the market after reflecting changes to the company's financial structure, capitalisation and business operations that have occurred within the calculation window; GROWTH reflects firms which are expensive relative to the overall market as measured by five year average earnings per share growth; VALUE is a weighted composite of earnings to price, book value to price, and cash flow to price; BARGAIN SIZE is measured as the number of shares traded per bargain during 2001 and 2002 divided by the free float adjusted total number of shares outstanding; TRADING VOLUME is shares traded per month divided by the total number of shares outstanding adjusted for the free float.

Table 3
Regression Analysis

	<i>Dependent Variables = Proportion of total firm equity (adjusted for free float) held by fund managers facing the number of concurrent rivals indicated</i>					
	<i>Model (i)</i>	<i>Model (ii)</i>	<i>Model (iii)</i>	<i>Model (iv)</i>	<i>Model (v)</i>	<i>Model (vi)</i>
	0	1	2	3	4	5
<i>Independent Variables</i>						
CONSTANT	0.1450 (0.0425)***	0.0455 (0.0216)**	0.0232 (0.0094)**	0.0206 (0.0107)**	0.0036 (0.0038)	0.0075 (0.0092)
COMPANY SIZE	-0.0002 (0.0021)	0.0003 (0.0011)	-0.0002 (0.0005)	0.0008 (0.0005)	-0.0001 (0.0002)	0.0000 (0.0004)
PENSION FUND SIZE	0.000007 (0.000001)***	0.0000004 (0.0000004)	0.000006 (0.000000)***	0.000002 (0.0000004)***	0.000015 (0.000002)***	0.000000 (0.000000)
ROTA	0.0001 (0.0001)	0.0002 (0.0001)***	0.0000 (0.0000)	0.0001 (0.00003)***	0.0000 (0.0000)	0.0000 (0.0000)
LEVERAGE	0.0003 (0.0001)***	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
FREE FLOAT	-0.0007 (0.0156)	0.0011 (0.0080)	-0.0075 (0.0035)**	-0.0003 (0.0040)	-0.0003 (0.0014)	0.0037 (0.0034)
CSRCOMP	0.0021 (0.0010)**	0.0013 (0.0006)**	-0.0001 (0.0002)	-0.0002 (0.0003)	-0.0002 (0.0001)*	0.0003 (0.0002)
RISK	-0.2908 (0.0525)***	-0.0551 (0.027)**	-0.0353 (0.0119)***	-0.0259 (0.0134)**	-0.0051 (0.0048)	-0.0216 (0.0115)*
BETA	0.0810 (0.017)***	0.0306 (0.0085)***	0.0148 (0.0037)***	0.0084 (0.0042)**	0.0001 (0.0015)	0.0058 (0.0036)
GROWTH	-0.0008 (0.0022)	-0.0036 (0.0011)***	-0.0020 (0.0005)***	0.0004 (0.0006)	-0.0001 (0.0002)	-0.0002 (0.0005)
VALUE	-0.0077 (0.002)***	-0.0003 (0.0012)	0.0001 (0.0005)	-0.0003 (0.0006)	-0.0004 (0.0002)*	-0.0007 (0.0005)
BARGAIN SIZE	0.0035 (0.0024)	0.0036 (0.0012)***	0.0004 (0.0005)	0.0017 (0.0006)***	-0.0003 (0.0002)	-0.0004 (0.0005)
TRADING VOLUME	0.0059 (0.003)*	-0.0004 (0.0018)	0.0020 (0.0008)***	0.0001 (0.0009)	0.0007 (0.0003)**	0.0009 (0.0007)
RESOURCES	-0.0189 (0.010)*	-0.0002 (0.0053)	-0.0056 (0.0023)**	-0.0027 (0.0026)	-0.0008 (0.0009)	-0.0013 (0.0022)
GENERAL INDS	0.0065 (0.0078)	0.0043 (0.0040)	-0.0007 (0.0017)	0.0036 (0.0020)*	-0.0001 (0.0007)	0.0001 (0.0017)
CYC. CONS GOODS	-0.0080 (0.0131)	-0.0069 (0.0068)	-0.0070 (0.0030)**	-0.0054 (0.0034)	-0.0002 (0.0012)	-0.0028 (0.0029)
NON CYC. CONS GOODS	-0.0114 (0.0084)	0.0046 (0.0043)	0.0005 (0.0019)	0.0033 (0.0021)	-0.0005 (0.0008)	0.0001 (0.0018)
CYCLICAL SERVICES	0.0073 (0.0062)	0.0054 (0.0032)**	0.0003 (0.0014)	0.0016 (0.0016)	-0.0008 (0.0006)	0.0012 (0.0013)
NON-CYCLICAL SERVICES	-0.0051 (0.0116)	0.0052 (0.0059)	0.0002 (0.0026)	-0.0003 (0.0029)	-0.0008 (0.0010)	-0.0010 (0.0025)
UTILITIES	0.0053 (0.0135)	0.0191 (0.0069)***	0.0032 (0.0030)	0.0015 (0.0034)	-0.0010 (0.0012)	0.0002 (0.0029)
FINANCIALS	-0.0174 (0.007)**	0.0022 (0.0036)	-0.0016 (0.0016)	-0.0034 (0.0018)*	-0.0007 (0.0006)	-0.0006 (0.0015)
IT	0.0097 (0.0100)	0.0030 (0.0051)	-0.0022 (0.0023)	0.0010 (0.0025)	0.0008 (0.0009)	-0.0002 (0.0022)
SIGMA	0.0372 (0.0011)	0.0191 (0.0006)	0.0081 (0.0003)	0.0094 (0.0003)	0.0030 (0.0001)	0.0081 (0.0003)
Log Likelihood	1001.48	1353.15	1516.68	1689.92	1300.34	1735.24
No. of Observations	541	541	541	541	541	541

Table 3 (Continued)*Notes:*

Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Variable definitions: COMPANY SIZE is the natural logarithm of the total value of company assets; PENSION FUND SIZE is the average size of pension funds holding stock in each particular firm weighted according to the size of their holdings; ROTA is measured as the ratio of pre-tax profits to total assets; LEVERAGE is the ratio of total debt to total assets; FREEFLOAT is measured by the mean quarterly free float between January 2001 and June 2002; CSRCOMP is a composite indicator of firm performance regarding environmental, employee and community issues; RISK is equal to the variance of stock price returns over the previous 60 months; BETA is the slope of 60 month stock returns regressed on the market after reflecting changes to the company's financial structure, capitalisation and business operations that have occurred within the calculation window; GROWTH reflects firms which are expensive relative to the overall market as measured by five year average earnings per share growth; VALUE is a weighted composite of earnings to price, book value to price, and cash flow to price; BARGAIN SIZE is measured as the number of shares traded per bargain during 2001 and 2002 divided by the free float adjusted total number of shares outstanding; TRADING VOLUME is shares traded per month divided by the total number of shares outstanding adjusted for the free float; Industry is measured using the FTSE Global Industry Classification System which groups listed stocks into 10 economic groups.

Model (i) in considering how such incentives influence the attitudes of fund managers concerning the characteristics of equities they prefer to invest in.

Model (i) documents that for pension fund portfolios where managers face no tournament incentives, a statistically significant positive relationship exists between the average degree of portfolio ownership in companies and their expected return (Beta, $p < 0.01$), leverage ($p < 0.01$), corporate social performance ($p < 0.05$), and trading volume ($p < 0.10$), and that significant negative relationships exist for risk ($p < 0.01$) and value ($p < 0.01$). The results with respect to risk and expected return are consistent with investment theory, and that for trading volume indicates that having low transaction costs plays an important role in investment selection.

As we move across Models (ii)-(vi) the intensity of the tournament incentives faced by fund managers increases. For some characteristics, preferences of fund managers appear to be independent of the degree of tournament intensity. For example, consistent with investment theory and the general importance of low transaction costs, most portfolios exhibit strong positive preferences for stocks with high expected return, low risk, and high liquidity, manifested either in high trading volumes or trade depth. Similarly, the extent of pension fund holdings in firms is positively related to their size for most intensities of tournament. However, for other aspects of portfolio companies, increases in tournament intensity are associated with important changes in the preferences of fund managers for firm characteristics.

Although the coefficients on growth and value need careful interpretation (Lofthouse, 2001) the results provide some support for hypothesis 1 with evidence that low tournament intensity is associated with long term investment strategies. Value stocks are avoided in low tournament intensity portfolios, but as tournament intensity increases growth stocks are most avoided (significantly so for Models (ii) and (iii)). To the extent that value strategies have a shorter term focus than growth (Lofthouse, 2001) this is consistent with higher tournament intensity portfolios having shorter investment time horizons. The results also provide some evidence that fund managers exhibit an increasing preference for operating efficiency as tournament intensity increases with a clear division between single manager funds and multi-manager funds. Operating efficiency, as captured by the return on total assets is found to be significantly positively

related to stock holdings in Models (ii) and (iv) ($p < 0.01$, and $p < 0.01$ respectively). This may reflect a tendency for managers who face significant rivalry from other fund managers to adopt an investment approach that more closely reflects the fundamental indicators of financial performance of companies than those that don't face such competition.

The results provide consistent support for hypothesis 2. Tournament intensity is negatively related to systematic risk (BETA) with a consistent decline in both the coefficient and the level of significance. At the same time tolerance for other sources of risk, or diversifiable risk (RISK), increases as tournament intensity increases, although the coefficient always remains negative. A greater acceptance of diversifiable risk when tournament intensity is high may reflect fund managers search for additional sources of return as tournament intensity increases.

The relationship between portfolio holdings and social and environmental performance is positive and statistically significant in Models (i) and (ii) ($p = 0.049$, and $p = 0.021$). Fund managers therefore exhibit a positive preference for such attributes that does not disappear when competition is introduced. However, as we move through Models (iii)-(vi), social and environmental performance characteristics play a much less significant role in influencing stock selection and there is some evidence that where they do enter stock selection decisions, such attributes are viewed negatively (Model (v)). Together, these results suggest that there is a threshold level of manager rivalry after which managers attitudes towards social and environmental firm characteristics significantly alter. At low tournament intensities, fund managers appear to value such characteristics, perhaps because they expect them to lead to positive financial returns over the long run or because they help to reduce risk. However, once fund managers face more rivals, in our analysis, two or more rivals, social & environmental performance either play no significant role or enters negatively into share selection decisions. This provides strong support for hypothesis 3 and is consistent with increasing rivalry among fund managers leading to a focus on short term financial returns.

5. DISCUSSION AND CONCLUSION

This paper explores the relationship between the tournament incentives of pension fund managers and the characteristics of equities they prefer to hold in their portfolios. Using a comprehensive data set on pension fund portfolio holdings, we determine the intensity of fund manager tournaments by sorting pension funds into portfolios based on the number of concurrent managers each pension fund employs. We then investigate which corporate characteristics are preferred by each of these portfolios by estimating share selection models that include a wide range of factors, including corporate social performance, that are hypothesised to play a role in shaping the returns to investment in stocks over the short and long run. We find that the intensity of the tournament faced by fund managers plays a significant role in shaping preferences over corporate characteristics. Managers facing more intense tournaments exhibit significantly weaker preferences for attributes associated with long run payoffs, such as social performance and growth potential, and significantly stronger preferences for short term attributes, such as operational efficiency, when compared to managers that face weak or no tournament incentives.

The results also suggest that the impact of tournament intensity on fund manager behaviour differs significantly between pension funds and both mutual funds and

investment trusts. In contrast to mutual funds (Del Guercio and Tkac, 2002) tournament intensity reduces fund manager preferences for systematic risk whilst increasing manager search for other return generating risk proxies, a result which may reflect the importance of minimum performance benchmarks and the importance attached to compliance with stated investment policies in fund managers evaluations (Del Guercio and Tkac, 2002). Our findings also contrast with those of Acker and Duck (2006) in that we find that, on average, managers facing low levels of tournament intensity exhibit a stronger preference for high Beta stocks than managers facing higher levels of tournament intensity. While this observation might reflect our inability to control for the relative current performance of fund managers and/or the generally pessimistic market forecasts during the period covered by our analysis, it might also be a reflection of the relatively low risk of losing mandates faced by pension fund managers with few internal rivals compared to both comparable incentives for good pension fund performance and the risks of mandate loss by other types of fund manager.

Our analysis suggests that, in spite of significant pressure from government and regulators for pension funds to adopt a long term perspective on investment, only those components of pension funds that face weak tournament incentives for short-term performance tend to view aspects of companies that are expected to provide long term returns positively. Thus, although pension funds have the longest investment time horizons, are the most sheltered from short-term market developments, and have been encouraged to take a more active stance in stimulating the non-financial characteristics of companies, significant proportions of their assets appear to be invested in order to provide short-term financial returns.

These observations are significant in that they suggest that, in actuality, pension fund investment largely acts so as to incentivise corporate behaviour designed to deliver short, rather than long, term financial performance. Such incentives may cause companies to shift their investments towards projects which deliver short-term returns to the detriment both of their long-run financial performance and the productivity of UK companies. A particular concern is the absence of any incentive for companies to take actions that mitigate their social and environmental impacts. Such factors are increasingly thought to be a source of considerable risk for large corporations and their shareholders, and should therefore play a role in share selection. Pressure for companies to disclose a policy on social and environmental aspects of investment behaviours has not, it seems, led to such issues playing a significant role in share selection for many fund managers. If government or financial regulators are serious about promoting long-termism among specific groups of institutional investors, then our analysis suggests that they will have to carefully consider the way in which the incentives that guide the behaviour of individual fund managers can be shaped in order to bring about the desired outcomes.

This work is subject to a number of limitations that might serve as the basis for future work. In particular, our data don't allow us any insight into other aspects of fund manager environments that may shape asset allocations. In particular, the absence of detailed information concerning mandates, fee and reward structures offers the possibility that future work could explore multiple aspects of fund manager competitions. In addition, our study used a raw count of the numbers of managers in a fund to estimate the tournament properties managers confront. However, some managers are hired because they are experts over different subsets of securities rather than over the same subset and a more detailed study could further investigate this;

exploring such specialist mandates and other important details of fund manager tournaments could reveal important new evidence concerning the drivers of the fund manager behaviour.

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Is Corporate Social Performance a Criterion in the Overseas Investment Strategy of U.S. Pension Plans?

An Empirical Examination

Paul Cox

University of Exeter

Marguerite Schneider

New Jersey Institute of Technology

This study examines overseas investing by U.S.-domiciled pension plans. The authors explore whether U.S. pension plans invest based on corporate social performance (CSP) in a core overseas market, the United Kingdom. As a guide to social investing opportunities available to U.S. pension funds in the United Kingdom, their investments are compared to U.K.-domiciled pension plan domestic investments. U.S. labor union plan portfolios have a positive relationship with workplace practices, and U.S. private plan portfolios, with CSP's community dimension. U.S. state and foundation plan portfolios have no relationship with CSP. Other than union plans, U.S. pension plans stress corporate financial performance in their U.K. investments. U.K. union plan portfolios have a positive relationship with workplace practices, and U.K. state, foundation, and private plan portfolios with environment.

Keywords: *socially responsible investing; pension plans; institutional investment; corporate social performance*

Institutionalization of the large, publicly owned corporation in the 20th century brought about the emergence of sometimes unbridled corporate power affecting various stakeholders and the larger society (Eberstadt, 1977). The large, publicly owned corporation also led to managerialism (Berle & Means, 1932/1968), in which managers gained great discretion with few checks and balances over their dispersed owners or investors. There have been several developments to better monitor and mitigate these forms of power. With regard to corporate power, the construct of corporate

social performance (CSP) came about and is the aspect of corporate performance having to do with principles, processes, and outcomes related to the firm's societal relationships (Wartick & Cochran, 1985). And, the rise of institutional investing has led to a more concentrated and, hence, powerful owner base to counter managerialism (Brown, 1998).

In addition to growing emphasis on socially responsible investing (SRI) based on CSP criteria and the rise of institutional investors is the mega-trend of globalization, the increased interlinkage of socioeconomic systems and the institutions and individuals within them. The deployment of information technologies and political movements toward free trade and privatization of the means of production have led to the emergence of global investing. In 2004, almost \$6 trillion of U.S. securities were held by foreign investors, and the value of foreign securities held by U.S. investors was almost \$7.4 trillion (Securities Industry Association, 2005). In 2005, of the 24 largest global initial public offerings, only one listed in the United States, with London and Hong Kong the most popular locations (Scott & Dallas, 2006). Any investor—from small individual investors through major pension plans and mutual funds—can gather information on publicly traded companies incorporated outside of the investor's country and trade his or her equities. Thus, the investment landscape has changed dramatically of late, to include socially responsible, institutional, and global investing.

This article brings together the trends of socially responsible, institutional, and global investing and brings forth the issue of whether institutional investors' SRI affects their nondomestic investments. Pension plans are a major type of institutional investor, with U.S. pension plans accounting for \$2.3 trillion or 26.2% of U.S. institutional investment in equity in 2004 (U.S. Census Bureau, 2006). We evaluate U.S. pension plans' SRI in a core overseas market, the United Kingdom. One motivation for selecting the United Kingdom is that its stock market has sufficient liquidity to meet the needs of large U.S. investors. A second motivation is that it is a major market for international corporate issuers and investors. For example, overseas investors owned 33% of U.K. shares listed on the London Stock Exchange at the end of 2004 (see appendix), worth £483 billion. Of this total, £164 billion (34%) was held by investors based in Europe, with the remaining £319 billion (66%) held mostly by investors based in the United States (National Statistics, 2005). To gauge social investing opportunities available to U.S. pension funds in the United Kingdom, we use U.K.-domiciled pension plan domestic investments as a benchmark. We focus this exploratory study on the specific research question, within the U.K. equity market, how does U.S. pension plan SRI compare with U.K. pension plan SRI?

We directly compare U.S. and U.K. pension plan investments in the U.K. Financial Times Stock Exchange (FTSE) All Share 300, which is similar to the U.S. Standard & Poor's 500 Index (S&P 500). Firms in the pension plans' portfolios are evaluated on CSP and corporate financial performance (CFP) criteria. A series of hypotheses is developed and tested based on the countries of pension plan origin and country of pension plan investing; pension plan type; and the CSP dimensions of environment, workplace, and community. Among U.S. pension plans, we found that labor union plan portfolios are positively related to workplace practices and private pension plan portfolios to CSP's community dimension. U.K. union plan portfolios, similar to their U.S. counterparts, have a positive relationship with workplace practices, whereas U.K. state, foundation, and private plan portfolios have a positive relationship with CSP's environment dimension. Other than union pension plans, U.S. pension plans tend to invest in U.K. firms for their CFP more so than for their CSP. The article's contributions include theory development and testing with regard to the SRI of pension plans as institutional investors, and an extended typology of pension plans.

SRI, Institutional Investing, and the Influence of National Environments

CSP and SRI

As corporate performance is multidimensional, as seen in the Balanced Scorecard approach to performance measurement (Kaplan & Norton, 2005), it follows that the aspect of performance tied to stakeholder and social relations is also multidimensional. As the term *performance* has an outcome orientation, CSP is the set of outcomes that is achieved in response to the corporation's social responsibility. Based on the principle that business and society are interwoven, corporate social responsibility (CSR) proposes that society has legitimate expectations for corporate processes and performance (Wood, 1991), which extend beyond traditional economic and legal expectations. CSR includes levels or categories of social responsibility, a range of possible corporate philosophies to social responsiveness, and a range of social issues (Carroll, 1979). It includes the narrow aspect of stakeholder management and the broad aspect of social issues management (Clarkson, 1995; Swanson, 1995).

Although Carroll (1979) and Clarkson (1995) propose that CSR includes economic and legal responsibilities, and Carroll (1991) presents a corporate hierarchy of responsibilities with economic ones at the base, it remains

unclear whether there are positive or negative relationships among the performance outcomes associated with these responsibilities. Although many empirical studies have been conducted on the relationship between CSP and CFP (e.g., Waddock & Graves, 1997a), the results across the studies are often incomparable and thus inconclusive (Griffin & Mahon, 1997). And, there is broad consensus in the literature that measurement of the relationship is complicated by the costs of CSP being short term whereas its positive relationship with CFP is long term (Cox, Brammer, & Millington, 2004; Orlitzky & Benjamin, 2001; Orlitzky, Schmidt, & Rynes, 2003).

Hillman and Keim (2001) theorize and find support that the broad aspect of CSP tied to social issues might deter CFP, whereas the narrow aspect tied to relationship management of stakeholders may enhance the firm's ability to develop sustainable sources of competitive advance and facilitate financial performance. Thus, the comprehensiveness of CSP becomes problematic in assessing the relationship between it and CFP, as some aspects of CSP might aid financial performance whereas other aspects might hurt it. There is value in disaggregating the dimensions of CSP (Cox, *in press*) while remaining mindful that individual dimensions are not comprehensive, although CSP is necessarily so (Carroll, 2000).

The Kinder, Lydenburg, Domini (KLD) Index is a commonly used, comprehensive index of CSP. We find that its dimensions, which capture specific industries such as alcohol, reflect firms' historical path dependence (i.e., what they have inherited that might have huge exit costs) rather than their actively managed social performance and are therefore less meaningful—albeit legitimate—measures of CSP. Similar to others (Hillman & Keim, 2001; Waddock & Graves, 1997b), we choose to focus on a few dimensions of CSP, those that reflect relationships with stakeholder groups (Berman, Wicks, Kotha, & Jones, 1999; Clarkson, 1995; Starik, 1995). Our CSP dimensions include environmental performance, workplace practices, and community relations. The environment is a primary stakeholder that encompasses seminal concerns with regard to the potential negative effects of business on society. Employees are the most primary of stakeholders, along with other market-driven stakeholders, making workplace practices an important CSP dimension. Whereas community is a secondary stakeholder (Post, Frederick, Lawrence, & Weber, 1996), it provides the firm's local legal/regulatory environment and is often significantly affected by the firm's activities.

We define SRI as investing based on CSP as well as CFP criteria. Social investing violates modern portfolio theory (MPT) developed by Markowitz (1959). According to MPT, investment return is largely a function of risk

(Miller, 1987), and maximizing the return of a portfolio for a given level of risk is achieved through diversification across asset classes whose returns are less than perfectly correlated, and preferably uncorrelated or negatively correlated (Engebretson, 1995). As stocks of similar expected return are predicted to substitute for one another, and given the choice of stock found in large universes of stocks such as the S&P 500 or FTSE All Share 300, there should be no relationship between the level of demand for a stock and the stock's financial and firm-level characteristics (Eakins, Stansell, & Buck, 1998). Accordingly, use of any criteria other than risk, such as CSP, would lead to a suboptimal portfolio and would yield lower investment return.

However, empirical research contradicts the prescriptions of MPT, suggesting that many investors use their personal or religious values in investment decisions ("Many Have 'Faith,'" 2001; Schueth, 2003). SRI is offered as a viable investment strategy, given the lower portfolio turnover and lower transaction costs of SRI portfolios; the low correlation between SRI and the market compared with traditional investing and the market, leading to enhanced risk-return choices; and the lack of compelling evidence of a financial penalty or investment return cost of SRI (Hickman, Teets, & Kohls, 1999). SRI can be promoted as a component of investment strategy, including for financial fiduciaries concerning their clients' investments, as long as sectors traditionally underweighted by social investors, such as energy, are reflected in the portfolio; careful thought is given to its financial implications; and a dynamic approach to investment is taken, as old social issues will fade and new ones emerge (Kurtz, 2005). There is a burgeoning industry in social investing, as it is increasingly becoming part of the mainstream (Sparkes & Cowton, 2004). In 2003, there were 200 U.S. SRI mutual funds totaling \$2.16 trillion, representing 1 of every 9 dollars under professional management, and similar SRI products were available in 21 countries (Social Investment Forum, 2003).

Pension Plans as Institutional Investors

The topic of corporate governance has recently expanded discussion of the mechanisms by which managers can be empowered and exercise necessary discretion while duly acting in the interests of their shareholders and other stakeholders. Owner concentration, one of several corporate control mechanisms (Shleifer & Vishny, 1997), has increased in recent decades, largely achieved through the use of financial intermediaries such as pension and mutual funds (Sellon, 1994). Due to frequent inclusion of pension benefits for workers and the appeal of professional management of

mutual funds, individuals now tend to channel their investments through institutions (O'Barr & Conley, 1992; Sellon, 1994). In 2004, of the \$17.2 trillion in U.S. equities, \$6.5 trillion or 37.8% was held by households, and the remaining \$10.7 trillion or 62% was held by institutions and foreigners (U.S. Census Bureau, 2006).

The broad categories of institutional investors include pension plans, mutual funds, insurance companies, and banks. Pension plans are institutional investors that have a legal obligation to provide income to plan participants during their retirement (Kidwell, Peterson, & Blackwell, 1993). In general, pension plans have a long-term investment horizon compared with other institutional investors, with relatively low need for liquidity and predictable long-term outflows to beneficiaries (Brown, 1998). Given the progress of globalization, financial institutions including U.S. pension plans have increased their international investments, to reap the benefits of greater diversification (Feinberg, 2002, 2003).

Those involved in pension plan management include the fund sponsor or employer who administers the fund, the fund manager or employee who oversees the fund, and the portfolio manager, often external to the firm, who oversees investments. Plans may be defined benefit, an annuity in which investment risk is borne by the sponsor; defined contribution, in which investment risk is shifted to the plan member; or hybrid, in which risk is shared (Bodie & Crane, 1999). In all cases, there is substantial pressure to earn high investment return, which would be used to fund current and future payments to retired members and reduce the burden of current and future sponsor contributions to the plan.

The Influences of National Environment on SRI and CSP

Despite issues of ambiguous sovereignty and the blurring of national boundaries associated with globalization, country-level environment or context has great influence on industry (Hillman & Keim, 1995; Murtha & Lenway, 1994) and corporate governance (Denis & McConnell, 2003; Pedersen & Thomsen, 1999) within a nation. We propose that the country of pension plan origin and, given global investing, the country of pension plan investing will moderate pension plan SRI and corporate tendencies toward CSP, respectively. Legal and regulatory environments may encourage or discourage pension plans based in a country from engaging in SRI, and legal and regulatory environments will affect the perceived legitimacy of CSP among corporations. For example, some emerging economies might present few opportunities for SRI. Other countries might make little

differentiation between CSP and CFP, viewing both as necessary components of performance, and yet others might favor CFP. Therefore, in our study, it is necessary to examine the United States and United Kingdom in terms of their environments for pension plan SRI, and the United Kingdom in terms of its environment for CSP.

Hypotheses

Pension Plan Types and SRI

Prior work (Hoskisson, Hitt, Johnson, & Grossman, 2002; Johnson & Greening, 1999) on U.S. pension plan domestic investing indicates that the proportion of shares held by U.S. pension plans in U.S. firms is positively associated with CSP dimensions that they wish to promote in portfolio firms. However, as consolidating all pension plans might well mask relationships between the plans and the CSP of their portfolio firms, we will make use of four types of pension plans while also presenting consolidated results across types.

Labor union pension plans. These are multiemployer systems that are administered by members' labor unions. Whereas Brickley and Smith (1988) labeled labor union plans as pressure-indeterminate, meaning that they might or might not be susceptible to influence by a portfolio firm's management because of a business relationship with the firm, Ryan and Schneider (2002) suggest that they are among the most pressure-resistant of institutional investors. Union plan activism is evidenced by increased posturing with portfolio firms' managements and use of stockholdings of members' employers to influence their managements (Moberg, 1998), which is in compliance with pension plan regulation (Schelberg & Bitman, 1999). Labor union pension plans have sometimes coordinated their efforts, forming a cohesive block of activist investors (Moberg, 1998), although the efficacy of this activism is mixed (Marens, 2004).

Union goals include expansion of membership, training improvements, and continuation of current pension benefits (Ghilarducci & Reich, 2001) and are often reflected in union pension plan investing (Swoboda, 1999). Recent equity research from Morgan Stanley blames unions' ideology-before-profit principle for bloated corporate cost bases and poor profit. "Rigidity in labour costs, processes and pension requirements . . . may prove toxic"; "look for the union label . . . and run the other way" ("Morgan Stanley," 2002). Diltz (1995) finds that the market penalizes family-related benefits, such as parental leave

and dependent care assistance, more than any other type of CSP. In a study of 63 U.S. socially responsible mutual funds, Barnett and Salomon (2002) find that funds screening on the basis of labor relations were negatively related to financial performance. Preece and Filbeck (1999) compare risk-adjusted returns for a portfolio of 29 firms with high family-oriented benefits to a matched sample of firms. Over the 10-year period 1987-1996, lower risk-adjusted returns are observed on the high family-oriented benefit portfolio. In a later study, Filbeck and Preece (2003) employ an event study methodology and report negative abnormal stock returns to family-oriented award announcements at the 1% level of significance. We put forth that union pension plans will focus their interests in CSP on its workplace practices dimension, aligning their investment in firms with favorable practices and encouraging the managements of existing portfolio firms to improve their practices.

Hypothesis 1: There will be a positive relationship between union pension plan investment and their portfolio firms' CSP in terms of its workplace practices dimension.

Private pension plans. It is thought that private or corporate pension plans are pressure-indeterminate (Brickley & Smith, 1988), meaning that they might or might not be susceptible to influence by a portfolio firm's management because of a business relationship with the firm. Private plans are less likely to press for corporate reforms than public union plans. For example, they have tended to not use their voting rights (Ryan & Schneider, 2002; Useem, Bowman, Myatt, & Irvine, 1993).

Given that they reflect private sector sensibility and might be subject to pressure sensitivity, reflecting the golden rule of nonintervention on account of interlocking directorships, a small labour market for executive search and selection, and retaliation (Monks & Minow, 2001), private sector plans will be uninterested in idiosyncratic investment holdings and bias toward most dimensions of CSP. Thus, many U.S. private pension plans have avoided SRI, due to their conservatism and desire to avoid controversy (Arrington, 1999). Yet, they will tend to have an instrumental interest in community relations, including corporate philanthropy and general stakeholder relations. Harmonious outside associations may be instrumental to CFP, by increasing revenue and profit via broadcasting effects that advertise the firm and providing it with valuable public relations (Fry, Keim, & Meiners, 1982). Per unit of cost, philanthropy may have a short-term pay-off, for the performance of philanthropy arises in the act of giving and is

therefore relatively immediate (Carroll, 1979; Seifert, Morris, & Bartkus, 2004). A relatively short-term return on investment is more likely to yield a positive net present value over a typical investor time horizon and so be interpreted positively within investment decisions. A perception of a short-term positive internal rate of return may interest private pension plans that wish to invest ahead of improvements to revenue and profit brought about by a strong external profile.

Hypothesis 2: There will be a positive relationship between private pension plan investment and their portfolio firms' CSP in terms of its community relations dimension.

Foundation (university, church, charity) pension plans. This category is the most diverse, ranging from the behemoth TIAA-CREF through the small to mid-sized plans of religious and nonprofit organizations. One motivation for pulling these organizations together is that their sponsors are typically, at least in part, endowed. It is usual for endowments to have stipulations that they must be held permanently rather than spent as if they were income (Charity Commission, 2003; Endowment Funds, 2003), so that sponsors of endowed organizations are familiar with managing financial resources as perpetuities, and this should impart a common perspective of long-termism and protection. A second motivation is that their investment perspective may be different from other plan types, for their plan sponsors do not strictly operate only for profit, and have a degree of "publicness," although they are not in the government sector. Some aspects of their interest in CSR are aimed at corporate governance and social issues, which are outside of the dimensions of CSR in our study. TIAA-CREF has been a leader in seeking corporate governance reforms (Carleton, Nelson, & Weisbach, 1998; "TIAA-CREF on Corporate Governance," 2004), and church plans, often acting through the Interfaith Center on Corporate Responsibility (Frel, 2005), have pressured their portfolio firms with regard to human rights and social justice issues (Izrael, 2002; Proffitt & Spicer, 2006).

Plans such as TIAA-CREF have significant business savvy, whereas church plans are more idealistic, reflecting the instrumental and normative aspects of stakeholder theory, respectively (Donaldson & Preston, 1995). Yet, we put forth that foundation plans will share an interest in CSP's environmental dimension because the culture of endowed institutions is one of "guardians of the future against claims of the present," which seems to focus on safe-keeping and a long horizon as a policy objective (Weelden, 2006). Compliance with ISO 14000 and other environmental standards creates a safer

firm and, based on the firm's complementary assets, reduces costs (Christmann, 2000) and creates a corporate image of quality in processes and products (Vastag, Corbett, & Kirsch, 2004). This should lead firms to experience fewer negative environmental events, less negative visibility, fewer consumer boycotts, and less pollution monitoring by regulators—results that will sit well with pension plans that view stakeholders from an instrumental perspective. And, environmental responsibility is aligned with the general religious philosophy toward a less materialist, more spiritual existence. Church plan shareholder resolutions include ones concerning global warming, emission reduction, and sustainability (The Pension Boards, 2005). Furthermore, the Church of England's Ethical Investment Advisory Group sets ethical investment policies for the investment funds of Church organizations in keeping with its Christian values. These policies seek to invest in companies that will successfully develop their business financially in the interests of their shareholders but that are conscientious with regard to environmental performance and act with sensitivity (CCLA, 2008). For charities, environmental sensitivity is also paramount, as being seen to invest in particular sectors or companies could damage the reputation of a charity and the public's perception of its work. This could be a particular concern for fundraising charities. For example, more than 40% of respondents to a 2001 National Opinion Poll Survey for Charities Aid Foundation preferred to support charities that invest ethically (Charity SRI, n.d.).

Hypothesis 3: There will be a positive relationship between foundation pension plan investment and their portfolio firms' CSP in terms of its environmental performance dimension.

State pension plans. This category, which encompasses state, or local authority, pension plans, includes the retirement plans of civil service employees. They have a greater rate of employee coverage and a greater rate of defined benefit (i.e., guaranteed annuity) coverage than pension plans in the private sector (Schneider, 2005). The traditional view is that state pension plans are the most activist type of institutional investor (Wahil, 1996), pressing the managements of their portfolio firms for improvements in financial performance, social performance, and corporate governance reform (Useem et al., 1993). Some propose that state pension plans are willing to sacrifice some investment return to support their activist agendas (Monks & Minow, 2001; Romano, 1993). However, theory of fund value maximization explains a large proportion of public plan investment return (Schneider & Damanpour, 2002). Recent empirical work finds that state plans do earn

competitive returns (Del Guercio & Hawkins, 1999) and invest according to MPT (Cox, in press). We therefore expect no positive relationship between state pension plans and any aspect of CSP.

Hypothesis 4: There will not be a positive relationship between state pension plan investment and their portfolio firms' CSP in terms of its environmental performance, workplace practices, and community relations dimensions.

U.S. and U.K. Environments

Despite rampant investment opportunities brought about with globalization, there has been empirical support for a home bias among investors, including U.S. institutional investors, meaning they evidence a tendency to overinvest in equities from their domestic market and are suboptimal in achieving sufficient ex post international diversification (Cooper & Kaplanis, 1994; Lewis, 1999). However, much of the home bias phenomenon can be explained by differences in corporate governance, as U.S. institutional investors prefer good governance practices (Gillian & Starks, 2003). Recent studies indicate that U.S. investors tend to invest less in countries and in firms with concentrated insider ownership (Kho, Stulz, & Warnock, 2006), weak accounting standards (Ammer, Holland, Smith, & Warnock, 2005), and weak shareholder rights and legal frameworks (Aggarwal, Klapper, & Wysocki, 2005).

We propose that there will be no home bias among U.S. pension plans with regard to their SRI in the United Kingdom. First, the United States and United Kingdom have similar legal and regulatory environments for corporations and financial institutions, rooted in the common law tradition. U.S. and U.K. governance systems rely on strong legal protection for investors (Shleifer & Vishny, 1997) and reflect that they are highly developed systems of wealthy countries who were early industrializers (Pedersen & Thomsen, 1999). Their Anglo model of governance (Norburn, Boyd, Fox, & Muth, 2000) includes a large number of widely held publicly traded firms available for investment (Denis & McConnell, 2003). All of the mentioned factors should serve to reduce any tendency toward investment home bias.

Second, there is recent regulatory and legal movement in both countries that promotes (or ceases resistance to) SRI among pension plan managers. In the United States, social investing is not inconsistent with fiduciaries' responsibilities per ERISA pension regulation, as clarified by the Pension and Welfare Benefits Administration (Arrington, 1999). However, the fiduciary must determine that the investment will yield a return equal to others

of similar risk and take into account the often higher costs of social investment funds due to their active management (Peterson, 2001). In the United Kingdom, there are pressures to consider SRI in investing decisions, with legal requirements to identify the role of social, environmental, and ethical considerations in investment planning (Office of Public Sector Information, 1999) and for industry trade bodies to set social agendas (e.g., Local Authority Pension Fund Forum, 2002; National Association of Pension Funds, 2005). There is also significant public interest in social investment in the United Kingdom.

We therefore put forward that U.S. pension plans will be global in outlook with regard to SRI, seeking CSP as has previously been hypothesized, within the context of generally following a neutral market index such as the S&P 500 or FTSE All Share. Given the same market benchmark and similar preferences for CSP, there is no reason to expect a difference in the U.K. holdings of U.S. pension plans and the U.K. holdings of U.K. pension plans with regard to their portfolio firms' CSP dimensions. U.S. union plans will extend their concerns for workplace practices to the United Kingdom, as it is similarly an industrialized country whose union membership is endangered with globalization. U.S. private pension plans, given their business sensibility and understanding that good community relations are often good for CFP, will extend their interest in the community dimension of CSP to their U.K. equity holdings. U.S. foundation pension plans will pursue their interest in environmental performance to their U.K. investments, realizing that the effects of environmental issues extend beyond national borders. Last, U.S. state pension plans will invest only according to CFP in the larger, nondomestic arena.

Hypothesis 5: There will be no difference in SRI per pension plan type among U.S. and U.K. plans in their U.K. investments.

Method

Data

The data set used in this study details pension plan ownership of U.K. listed firms in 2002. This time period is chosen for two reasons. First, it follows an episode of significant stock market decline and volatility and thus may coincide with listed firms' placing greater value on long-term outcomes such as CSP. Second, disaggregated institutional ownership data are not available prior to this date. Our sample of firms is the largest 300 firms

of the FTSE All Share index. These market-value-weighted index constituents represent 97% of the U.K. market. We restrict our sample to the top 300 firms for two reasons. First, less analyst coverage about smaller stocks makes it difficult to stay informed outside of one's domestic market and so it is informationally efficient to focus on larger stocks (O'Brien & Bhushan, 1990). Second, higher costs of investing internationally provide incentives to focus on large, liquid stocks in which trading costs are lower.

Ownership data for the sample firms were drawn in June 2002 from a corporate ownership database maintained by one of the United Kingdom's largest company registrars. It is usual for large U.K. companies to delegate share registry and investor account management to a third party registrar. The registrar contacted for this study continuously updates shareholder account information for 2,000 U.K. firms via daily changes in ownership as recorded by equity transaction information on the London Stock Exchange. The data are commercially available and used extensively by investor relations departments to understand investor demographics and by investment professionals to monitor ownership changes and to source stock for trading. For every holder of stock, the database records the following information: name of the pension plan (e.g., State of Wisconsin), country of domicile (e.g., United States), name of the fund manager (e.g., Fidelity), name of the security (e.g., British Airways), and the number of shares held. A relational database was used to query the pension plan share holding information. We identified all pension plan holdings in the sample companies and coded each state plan, foundation plan, and so on. Next, we sorted pension plan holdings by the country of domicile to extract U.K. holdings of shares by U.S. pension plans. The same process then extracted U.K. holdings of shares by U.K. pension plans.

Market data were obtained from the London Stock Exchange and BARRA, an investment software and research company. Financial data were obtained from Datastream, and contextual data from Factiva, a Dow Jones and Reuters product, and the Ethical Investment Research Service (EIRIS). Independent variable data are mostly collected as time series extending back to 2001 and then averaged. Drawing on this detail is relevant because the profile of pension plan held stock drawn in June 2002 is a reflection of pension fund managers' investment decisions made prior to this date. Missing data reduced the initial firm sample of 300 firms to 271.

Dependent Variables

To calculate the dependent variables, the pooled number of shares held by each category of pension plan to the total number of shares outstanding

Table 1
Calculation Method of Pension Plan Ownership in a Firm

$$\text{Mean percentage holding } i = \frac{\sum_{x=1}^x \text{Shares owned by pension plan } x \text{ in firm } i \text{ at time } t}{\text{Shares outstanding in firm } i \text{ at time } t}$$

Mean percentage holding is the proportion of firm *i* owned by a category of pension plan (e.g., state), where *X* is the total number of pension plans in the specified category, and firm *i* is a FTSE 300 security.

Shares outstanding are adjusted for free float. Adjusting firms' share capital for free float overcomes situations where an investor owns a proportion of a line of stock that is unlikely to be for sale and so ensures an accurate representation of the proportion of a firm's stock that is available for portfolio investors.

per sample firm is computed. This calculation is presented in Table 1. This yielded consolidated U.S. and U.K. pension plan measures and measures for each of the four pension plan types.

Independent Variables

As stated, information developed by KLD is often used to operationalize CSP (e.g., Graves & Waddock, 1994; Johnson & Greening, 1999; Turban & Greening, 1997). We draw on the equivalent information about U.K. firms from the EIRIS, the United Kingdom's oldest independent research company specializing in the assessment of CSP for investors and having the largest and most complete multidimensional social performance coverage. The three dimensions of CSP included in the study are as follows:

Workplace. Data for health and safety make up a text-grade rating encompassing health and safety systems, convictions, and fines paid for violations, for each sample firm. Data for equal opportunities make up a text-grade rating encompassing policies, systems, and performance. Training and development is a single aspect. Using the approach of Graves and Waddock (1994), each text-grade rating is translated into a number-grade rating starting at 1 and increasing with greater performance. To arrive at a single factor for health and safety, equal opportunities, and training and development, we normalized the score on each of the dimensions so as to give them equal weight. This generates a possible range of scores from 3 to 12.

Community. Data for community relations are a single factor encompassing philanthropy, in cash and in kind, and relationships with public and external stakeholders. Each text-grade rating is translated into a number-grade rating that increases with greater performance.

Environment. Data on the environment encompass relevant policies, systems, reporting, and performance for each sample firm. As with the previous two variables, each text-grade rating is translated into a number-grade rating that increases with greater performance.

Control Variables

The following conventional market and financial investment proxies are used:

Firm size. We control for firm size because empirical work finds institutional security holdings concentrated around large companies (Rosenberg, 1974). Firm size is computed by the dollar value of company assets.

Free float. Free float is the proportion of shares tradable within the market place for a given stock. Pension plans should prefer a higher free float because it supports trading in larger blocks. Free float varies from 0 to 1, where 1 is complete stock availability and 0 is no stock availability.

Trading volume. Pension plans that trade frequently and in large volumes will prefer a company whose stock has high trading volume because trades can be executed quickly and at low cost (Anderson & Dyl, 2005). Less trading-intensive pension plans with longer investment time horizons should be less sensitive to trading volume. Trading volume is measured as shares traded per month divided by the total number of shares outstanding.

Growth/value. To profit from mispricing, asset managers take systematic investment positions relative to the current valuation of a security. Pension plan managers may tend toward “growth” stocks that are then held for long periods. Alternatively, managers may seek out value stocks because they are undervalued, overlooked, and “cheap” and so represent an opportunity for quick profit once the market reappraises their worth (Lofthouse, 2001). As growth and value are highly negatively correlated, only the BARRA growth variable is used.

Stock price volatility and stock beta (expected return). According to finance theory, institutions are expected to be averse to risk (stock price volatility), although heterogeneously so. As expected return (beta) is a function of risk preference, and because a linear relationship between risk and expected return is theorized, an institution may select a stock with a high or a low beta based on the institution's preferred level of risk. Empirical work indicates that institutions are mostly found to have greater ownership in firms with a higher beta, and therefore a preference for high beta is expected (Badrinath, Gay, & Kale, 1989; Eakins et al., 1998; O'Brien & Bhushan, 1990). Stock price volatility is the variance of stock price returns over the previous 60 months. Stock beta is the slope of 60-month stock returns regressed on the market after reflecting changes to the company's financial structure and business operations. Measures are provided by BARRA.

News stories. Investors may prefer a security about which there is more news arrival, for it reduces the potential for informational surprise and security revaluation (Bushee & Noe, 2000; O'Brien & Bhushan, 1990). Data are drawn from Factiva, a product covering nearly 8,000 news sources including Dow Jones and *The Wall Street Journal*. To compute this variable, the total number of news stories is collected for each sample firm for the years 2000 through 2002. A 2-year geometric rate of growth of news stories is then calculated.

Industry. We define a set of industry dummy variables, as ownership of firms across different industries may be influenced by the relationships industries have with risk and expected return. Industry sectoral dummies were created using the FTSE Global Industry Classification System, which groups listed stocks into 10 economic groups.

Estimation Technique and Statistical Method

The estimation model used is as follows:

$$PH_i = \alpha + \beta X_i + e_i$$

where PH_i is the proportion of security i held by a class of pension plan and X_i is the vector of variables that explains share ownership. One problem exists—corporate ownership is a censored variable in the sense that it cannot take a negative value. When data are censored, instead of observing y^* , we actually observe y , of the form

$$y = 0 \text{ if } y^* \leq 0$$

$$y = y^* \text{ if } y^* \geq 0$$

OLS estimations of the influences on the extent of pension plan share ownership in companies would introduce sample selectivity biases and, therefore, the use of a truncated regression technique is necessitated to avoid the biased and inconsistent parameter estimates that can be associated with OLS estimation. A variety of approaches exist that overcome such statistical difficulties (see Greene, 1993). A commonly adopted solution is to estimate a Tobit model:

$$y_i^* = \beta X_i + \varepsilon_i$$

where an observed dependent variable, y_i (which is equal to y_i^*), is generated if $\beta X_i + \varepsilon_i > 0$ and is otherwise equal to zero. An OLS model, not reported, using heteroskedasticity-consistent (White) standard errors with intercept included, is also estimated and has similar results.

Results

Consolidated Results

Table 2 reports that 352 U.S. pension plans and 1,334 U.K. pension plans hold shares in the sample firms.¹ The share holdings of U.S. pension plans in U.K. companies range from 0.0% to 9.1% with a standard deviation of 1.5%, whereas the share holdings of U.K. pension plans range from 0.0% to 37.8% with a standard deviation of 6.1%. Thus, compared with U.K. pension plans, there are approximately one quarter as many U.S. pension plans having about one quarter of the range of percentage share holdings and one quarter of the standard deviation of percentage share holdings as U.K. pension plans. This suggests very similar plan investment sizes in U.K. companies, of benefit in directly comparing U.S. and U.K. plans.

Table 3 presents correlation coefficients for the control and independent variables. The magnitudes of the correlation coefficients suggest some very limited evidence of multicollinearity, but at these levels, it is unlikely to present significant statistical difficulties (Greene, 1993). We estimate variance inflation factors and in no instance do these exceed 3.

Table 4 shows how U.S. pension plans investing solely on the basis of MPT would be expected to decide their portfolio allocation among public listed firms.

Table 2
Descriptive Statistics on U.K. Financial Times Stock Exchange
(FTSE) 300 Holdings of Shares by Type of Pension Fund

Type of Pension Plan	# of U.S. Pension Plans	# of U.K. Pension Plans
Labor union	9 ^e	36 ^f
Corporate	212 ^a	1105 ^b
Foundation (university, charity, church)	20 ^c	54 ^d
Labor union	9 ^e	36 ^f
State	111 ^g	139 ^b
Total number of plans	352	1334
Range of consolidated share holding	0.0%–9.1%	0.0%–37.8%
Standard deviation of consolidated share holding	1.5%	6.1%

a. For example, Minnesota Mining PF, Mobil PF, Monsanto PF, New York Times PT, Nortel Networks PF, Northern Telecom PF, Northern Trust Co. PT, Northwest Airlines.

b. For example, Bristol & West Staff PF, Bristol Myers Squibb PF, Bristow Group Staff PF, Britannia Airways SF, Britannic Assurance Staff PF, British Airways PF, British American Tobacco U.K. PF, British Aviation Insurance Group PF.

c. For example, Brown University Endowment Pool, College REF/Teachers Ins. Ann. Association, President & Fellows Harvard College, Stanford University, State Universities Ret. System, University of Michigan, University of Texas RF, University of Washington RS.

d. For example, Trinity College Oxford RBS, Universities SS, University of Bristol, University of Birmingham General Pool, University of Edinburgh No. 1 Trust, University of Glasgow Bursers, University of Liverpool Main Fund, University of London SF.

e. For example, Western Pennsylvania Teamster PF, Laborers Dis. Council & Contractors PP, Labour Union Co-operative RF, Carpenters PF, Ohio Carpenters PP, Massachusetts State Carpenters RF, Northern States Power PF, YMCA RF.

f. For example, Electrical Contractors Association, Engineering Emp. Fed. Staff PF, Institute of Electrical Engineers PF, Iron & Steel Trades Confed. SF, Milk PF, Pilots National PF, Plumbing & Mechanical PF, Press Association 1992 PF.

g. For example, Alabama Teachers RS, Arizona State RS, Arkansas Teachers RS, Austin Police RF, California Public Employees RS, California State Teachers RF, City of Austin Police RS, City of Baltimore RS.

h. For example, Shropshire CC PF, Somerset CC Pension Fund, South Yorks PF, Staffordshire CC PF, Strathclyde PF, Suffolk CC SF, Surrey CC PF, Tyne & Wear County Council SF.

Moving from the left to the right of Table 4, the leftmost column lists the Global Industry Classifications or sectors used by S&P and FTSE in 2002. The second and third columns list the index weight of each industry in the U.S. and U.K. markets, respectively. In terms of pension plan investments in the United Kingdom, the U.K. FTSE 300 industry allocation is the most

Table 3
Correlation Statistics for the Independent Variables

	1	2	3	4	5	6	7	8	9
1. Size	—								
2. Free float	0.017	—							
3. Trading volume	0.127*	0.495**	—						
4. Growth/value	-0.164**	-0.123*	0.005	—					
5. Stock price volatility	-0.313**	-0.063	0.273**	0.214**	—				
6. Stock beta	0.057	0.016	0.333**	0.189**	0.838**	—			
7. News stories	-0.161**	-0.024	0.008	0.150*	0.063	-0.005	—		
8. Workplace	0.331**	0.068	-0.151**	-0.094	-0.068	0.055	-0.104	—	
9. Community	0.544**	0.144**	0.128*	-0.228**	-0.269**	-0.068	-0.158**	0.577**	—
10. Environment	0.529**	0.113	0.171**	-0.306**	-0.330**	-0.155**	-0.158**	0.479**	0.623**

Note: Industry variables are excluded for reasons of space.

*Significant at the 5% level. **Significant at the 1% level.

Table 4
Industry Allocation for the Standard & Poor's (S&P) 500 Versus
Financial Times Stock Exchange (FTSE) 300, Mid-2002

Sector	U.S. S&P 500 Weight (%)	U.K. FTSE 300 Weight (%)	U.S. S&P Weight Minus U.K. FTSE Weight (%)
Resources ^a	8.1	16.8	-9
Basic industries ^b	3.0	2.8	0
General industries ^c	7.8	2.3	6
Cyclical consumer goods ^d	2.3	0.3	2
Noncyclical consumer goods ^e	22.3	20.3	2
Cyclical services ^f	14.3	14.0	0
Noncyclical services ^g	5.4	12.3	-7
Utilities ^h	3.1	3.3	0
Financials ⁱ	19.8	26.5	-7
Information technology ^j	13.9	1.3	13
Total	100	100	0

a. Mining, oil, gas.

b. Chemicals, construction and building materials, forestry & paper, steel & other metals.

c. Capital goods: aerospace & defense, diversified industrials, electronic & electrical, engineering & machinery.

d. Consumer discretionary (production): automobile & parts, household goods & textiles.

e. Consumer staple (production): beverages, food, tobacco, personal & health care, household, pharmaceuticals.

f. Consumer discretionary (consumption): general retailers, leisure & hotels, media & entertainment, transport.

g. Consumer staple (consumption): food & drug retailers, telecommunication services.

h. Electricity, gas, water.

i. Banks, insurance, investment companies.

j. Information technology hardware, software & computer services.

obvious default position from the standpoint of MPT, because it represents the market portfolio. U.S. and U.K. pension plan portfolio investments in the United Kingdom can therefore both be expected to hold the FTSE 300 market in terms of industry composition; that is, there is no reason to expect any systematic industry difference observable between U.S. and U.K. plans per type at the industry level. The final column shows that for U.S. pension plans, the U.K. market is a relatively rich source of oil and gas, as well as mining companies (Resources sector), supermarkets and telecommunications (Noncyclical Services), and financial companies (Financials), compared with their home market.

Table 5
Portfolio Allocation of U.S. Pension Plans Versus U.K. Pension Plans
in Financial Times Stock Exchange (FTSE) 300 U.K. Companies,
Mid-2002

Sector	All U.S. vs. All U.K. Plans (%)	State Plans (%)	Union Plans (%)	Corporate Plans (%)	Foundation Plans (%)
Resources	1	1	13	1	-1
Basic industries	-2	-3	-5	-1	-4
General industrials	0	2	14	0	-5
Cyclical consumer goods	0	0	-2	0	0
Noncyclical consumer goods	3	5	1	2	1
Cyclical services	1	0	-15	0	10
Noncyclical services	1	0	1	0	1
Utilities	1	1	1	0	1
Financial companies	-4	-4	-2	-3	-3
Information technology	-1	-3	-6	0	-1
Net over/underweight	0	0	0	0	0

The actual portfolio weights for U.S. pension plans relative to U.K. pension plans concerning their investments in the United Kingdom are presented in Table 5.

Column 1 indicates that U.S. pension plans tend to be “overweight” relative to U.K. pension plans in some of the same sectors (i.e., Resources and Noncyclical Services) in which the United Kingdom is a relatively rich source of specific industry exposure. As these industries are less available at home, we offer that U.S. pension plans may indulge in these sectors when investing overseas to obtain more optimal diversification and risk-return combination. This evidence suggests that U.S. pension plans are using the United Kingdom for purposes primarily associated with portfolio return and to augment superior risk-return combinations. This seems to occur, at least in part, by gaining exposure to oil and gas, mining, supermarkets, and telecommunications, for the United Kingdom offers a wide choice of stocks in these areas. Additional analysis (results not shown) further indicates that U.S. pension plans are overweight in some industries within the Noncyclical Consumer Goods sector, including tobacco, breweries, and pharmaceuticals. The industry results suggest that we will not find CSP to be a major criterion in overseas investment strategy. Indeed, some of the industries sought by U.S. pension plans in their

U.K. investments are renowned for their paucity of CSP. This finding appears in contrast to the CSP preferences the same pension plans are found to express when investing in their “home” (i.e., U.S.) market (Johnson & Greening, 1999).

Tables 6 and 7, which follow the same layout, document Tobit estimates for the independent and control variables regressed on the relative holdings of shares by U.S. and U.K. pension plans, respectively. Industry variables are excluded for reasons of space. On average, the model explains approximately one half of the variation in corporate ownership by U.S. pension plans and approximately one fifth of the variation in corporate ownership by U.K. pension plans. This compares favorably with existing studies both in finance and in management (Coffey & Fryxell, 1991; Del Guercio, 1996; Graves & Waddock, 1994). We have organized the independent and control variables in Tables 6 and 7 according to market characteristics relevant to MPT and financial performance—trading volume, growth/value, stock price volatility, stock beta, size, and free float—and CSP characteristics—workplace, environment, and community.

U.S. pension plan consolidated findings. We will first review findings with regard to the control and then the independent variables. Moving down the column of Table 6 associated with All U.S. Plans, U.S. pension plans own more of companies whose stock is associated with lower transaction costs (trading volume $p < .01$) and is undervalued, overlooked, and thus due for upward market reappraisal (growth/value $p < .05$). These preferences point to a desire for liquidity and short investment planning horizon, despite that pension plans have been thought to have the opposite tendencies based on their largely predictable financial outflows to plan beneficiaries (Brown, 1998). The negative coefficient on stock price volatility ($p < .01$) and positive coefficient on stock beta (expected return) ($p < .01$) follow theoretical and empirical work on MPT (Del Guercio, 1996; Gompers & Metrick, 2001). Greater amounts are invested in U.K. firms of large size ($p < .05$) and in companies characterized by less than full free float ($p < .01$), possibly because these are less institutionally held, and more exploitable return opportunities may be available when fewer other professional investors are present (Bushee & Noe, 2000).

With regard to the independent variables, only community is significant, and it is positive ($p < .05$). Thus, U.S. pension plans, in aggregate, have significant investment in firms with good community relations, but environment

Table 6
Characteristics of U.K. Financial Times Stock Exchange (FTSE) 300
Securities Regressed on Holdings of Shares by U.S. Pension Plans

	All U.S. Plans ^a	Union Plans	Corporate Plans	Foundation Plans	State Plans
Model fit					
Overall R^2	0.49***	0.12**	0.37***	0.32***	0.41***
Adjusted R^2	0.45***	0.05**	0.32***	0.26***	0.37***
N	271	271	271	271	271
Independent variables					
Intercept	0.055 (0.174)***	-0.007 (0.008)	0.030 (0.010)***	-0.003 (0.005)	0.026 (0.010)***
Trading volume	0.007 (0.001)***	0.002 (0.001)**	0.002 (0.001)***	0.001 (0.0003)***	0.004 (0.001)***
Growth/value	-0.002 (0.001)**	0.0001 (0.0003)	-0.001 (0.001)	-0.001 (0.0003)**	-0.001 (0.0006)
Stock price volatility	-0.132 (0.024)***	0.003 (0.008)	-0.052 (0.015)***	-0.029 (0.007)***	-0.072 (0.014)***
Stock beta (expected return)	0.037 (0.008)***	-0.002 (0.003)	0.015 (0.005)***	0.009 (0.002)***	0.020 (0.005)***
Size	0.001 (0.001)*	0.0003 (0.0003)	0.001 (0.0005)	0.001 (0.0002)***	0.001 (0.0005)
Free float	-0.021 (0.008)***	0.003 (0.005)	-0.013 (0.005)***	-0.0003 (0.002)	-0.010 (0.004)**
News stories	0.001 (0.001)	0.001 (0.0005)	0.001 (0.001)	0.0001 (0.0004)	0.0001 (0.001)
Environment	0.0001 (0.001)	0.00003 (0.0004)	0.0002 (0.001)	0.0001 (0.0003)	0.0002 (0.001)
Workplace	-0.001 (0.001)	0.001 (0.0004)***	-0.001 (0.001)*	-0.0005 (0.0003)	0.0003 (0.001)
Community	0.002 (0.001)**	-0.0004 (0.0004)	0.002 (0.001)***	0.0004 (0.0003)	0.0004 (0.001)

Note: Tobit estimates. Figures in parentheses are standard errors.

a. Consolidation of union, corporate, foundation, and state plans.

*Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level.

and workplace are insignificant. These results are in contrast to prior work by Johnson and Greening (1999), who demonstrated that U.S. pension plan domestic investment tilts toward firms with better environmental, as well as community, records.

Table 7
Characteristics of U.K. Financial Times Stock Exchange (FTSE) 300 Securities Regressed on Holdings of Shares by U.K. Pension Plans

	All U.K. Plans ^a	Union Plans	Corporate Plans	Foundation Plans	State Plans
Model fit					
Overall R^2	0.21***	0.09	0.17***	0.12**	0.20***
Adjusted R^2	0.15***	0.02	0.11***	0.06**	0.14***
N	271	271	271	271	271
Independent variables					
Intercept	0.387 (0.086)***	-0.003 (0.002)	0.267 (0.069)***	0.011 (0.008)	0.030 (0.015)**
Trading volume	-0.012 (0.006)**	-0.0003 (0.0002)*	-0.011 (0.005)**	-0.001 (0.001)	0.0002 (0.001)
Growth/value	-0.010 (0.005)**	-0.0001 (0.0001)	-0.008 (0.004)**	0.001 (0.0005)**	-0.003 (0.001)***
Stock price volatility	-0.544 (0.120)***	-0.004 (0.003)	-0.395 (0.095)***	-0.020 (0.011)*	-0.072 (0.021)***
Stock beta (expected return)	0.158 (0.039)***	0.001 (0.001)	0.114 (0.031)***	0.005 (0.004)	0.022 (0.007)***
Size	-0.017 (0.004)***	0.00001 (0.0001)	-0.011 (0.003)***	-0.001 (0.0004)**	-0.001 (0.001)*
Free float	0.059 (0.038)	0.003 (0.001)***	0.041 (0.030)	0.008 (0.004)**	0.012 (0.007)*
News stories	0.001 (0.007)	0.0001 (0.0002)	-0.0002 (0.006)	0.0004 (0.001)	0.001 (0.001)
Environment	0.012 (0.006)**	0.0001 (0.0001)	0.009 (0.004)**	0.001 (0.0005)**	0.002 (0.001)*
Workplace	0.0002 (0.006)	0.0003 (0.0002)**	0.001 (0.005)	-0.0003 (0.0005)	0.001 (0.001)
Community	-0.009 (0.005)*	-0.0002 (0.0001)*	-0.006 (0.004)	-0.001 (0.0005)	-0.002 (0.001)***

Note: Tobit estimates. Figures in parentheses are standard errors.

a. Consolidation of union, corporate, foundation, and state plans.

*Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level.

U.S. pension plan unconsolidated findings. With regard to the control variables, moving from left to right in Table 6, trade volume is significant ($p < .01$) for all four types of plans, indicating that more is invested in firms whose shares can be bought and sold quickly and in large amounts. U.S.

plan managers may not understand foreign firms as well as they do domestic firms and so hold foreign stocks that can be rapidly bought and sold should their risk be materially different from what was anticipated. It is evident that corporate, foundation, and state plans invest according to MPT, with the coefficients for stock price volatility being negative ($p < .01$) and stock beta (expected return) being positive ($p < .01$). It is also notable that the investment strategy of these U.S. plan types with regard to their U.K. investments reflects similar preferences for the fundamental indicators of financial performance, despite very different predicted socio-political motives about the plan types (Ryan & Schneider, 2002). The coefficients relating to U.S. union plans are economically different, indicating an idiosyncratic investment strategy that does not conform to the other plan types or predictions of investors as rational economic actors in efficient markets drawn from MPT.

Turning to the independent variables, there is support for Hypothesis 1, as U.S. union plan portfolio firms tend toward high levels of workplace practices. There is also support for Hypothesis 2, as private plan portfolios tend toward high levels of community relations. However, the finding for private plans must be tempered by their negative relationship with workplace practices, as private plans promote the community dimension of CSP at the expense of its workplace dimension. We note that although U.K. firms with better workplace practices attract U.S. union plan investment ($p < .01$), U.K. firms with better workplace practices deter U.S. private plan investment ($p < .10$). There is no support for Hypothesis 3, as foundation plan portfolios evidence no tendency toward any of the three dimensions of CSP including the hypothesized positive relationship with environment. There is support for Hypothesis 4, as U.S. state plans evidence no tendency toward investing in U.K. firms with high ratings in any of the three CSP dimensions. This adds to the growing body of evidence that public sector pension plans rigorously apply modern investment techniques.

In summary, we found that no U.S. plan type invests significantly more in U.K. firms with better environmental records and that the pension plan portfolio relationship with workplace practices varies according to pension plan type, being positive for union plans and negative for private plans. Private plans are unique in their preference for firms with better community relations.

U.K. pension plan consolidated findings. Moving down the column of Table 7 associated with corporate ownership by All U.K. pension plans, trading volume is negative ($p < .05$), in contrast to the U.S. pension plan

regression. Because U.K. pension plans own more of companies whose stock costs more to trade, this provides important clues that these securities are intended to be infrequently traded and that U.K. pension plans may use activism with their portfolio firms to extract firm performance. A preference for smaller firms (size $p < .01$) with higher free float ($p < .10$) also points to activism, because in smaller firms with no block holders, a pension plan's investment will be more significant and influential. The coefficients on stock price volatility ($p < .01$) and stock beta (expected return) ($p < .01$) follow the expectations placed on investment fiduciaries to follow MPT.

Turning to the independent variables, the coefficient on environment is significant and positive ($p < .05$). This is analogous to the finding of Johnson and Greening (1999) that U.S. pension plans prefer domestic firms with better environmental records, suggesting that pension plans in different countries with similar legal and other institutions have similar investment behavior with regard to domestic investment. However, the coefficient for workplace is not significant, and for community it is significant and negative ($p < .10$). It may be that firms with better community relations are also the larger firms that U.K. pension plans seek to avoid, because their activism will be less influential (Fry et al., 1982).

U.K. pension plan unconsolidated findings. Turning to union, corporate, foundation, and state plans, whereas all types of U.S. pension plans invest more in the shares of U.K. firms that trade in higher volumes, the opposite is generally true of U.K. pension plans, alluding to longer investment time horizon preferences and, thus, incentives for activism. The coefficients on stock price volatility are negative and significant for all but union pension plans, confirming expectations of risk aversion drawn from portfolio theory. The relationship between each type of pension plan and stock beta, or expected return, is positive; however, only for corporate and state plans is the coefficient significant ($p < .01$ and $p < .01$, respectively). The coefficients on size suggest that smaller firms are preferred by all but union plans. One motivation for smaller firm size may be that a larger investment position can be built that, in turn, facilitates outcomes associated with activism. Foundation plans are unique in their preference for growth stocks ($p < .05$), being the only pension plan type evidencing an orientation toward tomorrow's companies. Examples of growth industries include alternative fuels, low carbon technologies, research and development, and biotechnology.

Turning to the independent variables, the coefficient on environment is significant and positive for three types of plan: state, foundation, and private. Union pension plans are the only plan type that does not tilt toward firms with better environmental records; they instead invest greater amounts in firms with better workplace practices, in support of Hypothesis 1 ($p < .05$). Although private plans are interested in environment, they are not interested in community relations, and thus there is no support for Hypothesis 2. U.K. private plans are interested in CSP, albeit not in the hypothesized dimension.

U.K. foundations plans were found to have a positive relationship with environment, in support of Hypothesis 3. Whereas U.K. state plans have no relationship with workplace practices and a negative relationship with community relations, tentatively supporting Hypothesis 4 calling for no positive relationship between state plans and any dimension of CSP, state plans do have a positive relationship with environment; therefore, the results indicate no support of Hypothesis 4. Similar to the finding for U.S. private plans above, U.K. state plans favor one aspect of CSP at the expense of another, and we had hypothesized that state plans would not favor any dimension.

Test of hypothesis concerning country context. To determine whether there is support for Hypothesis 5—that the U.S. and U.K. environments are sufficiently similar so that no differences in SRI per plan type will be found—we will contrast U.S. and U.K. pension plan results for the four pension plan types. Hypothesis 1, concerning a positive relationship between union plans and workplace practices, was supported for both U.S. and U.K. plans. Hypothesis 2, calling for a positive relationship between private plans and community relations, was supported for U.S. plans but not for U.K. plans. However, U.S. private plans also had a negative relationship with workplace practices, and U.K. private plans were instead interested in the environment. Hypothesis 3 called for a positive relationship between foundation plans and environment. We found no support for it among U.S. foundation plans, who evidence no interest in any dimension of CSP but did find support for Hypothesis 3 in U.K. foundation plans. Hypothesis 4, suggesting no positive relationship between state plans and any CSP dimension, was supported for U.S. plans but not for U.K. state plans, the latter of which have a positive relationship with environment but have a negative relationship with community.

In general, we found little support for Hypothesis 5, as U.S. pension plans—other than union plans—evidence less interest in SRI in their U.K.

investments than do U.K. pension plans. The domestic shareholdings of each U.K. pension plan type reveal preferences for at least one dimension of CSP, with U.K. union plans favoring workplace practices, and U.K. state, foundation, and private plans favoring the environment. In comparison, when U.S. pension plans invest in the United Kingdom, the most liquid European securities market and a major international location for firm listings, no dimension of CSP is favored by state and foundation plans and there is no interest for CSP's environmental dimension. The results suggest that labor union pension plans are the only type that adopts the same share selection procedures when investing domestically and internationally, being interested in workplace practices. This may be because union pension plans are the most politicized plan type and seek investments that match their core beliefs, a result that is important because their investment behavior has received little scholarly attention.

Discussion, Limitations, and Conclusions

Our results indicate that, other than labor union plans, U.S. pension plans per plan type are less inclined toward SRI in their U.K. investments than their U.K. counterparts; instead, in aggregate, they are interested in large companies whose stocks have low trading costs and are undervalued, overlooked, and thus due for upward market reappraisal. Aside from labor union plans, more is invested in firms whose shares can be bought and sold quickly and in large amounts. Again, aside from labor union plans, the tenets of MPT are applied by U.S. pension plans in their investment strategy, which appear to invest in the United Kingdom primarily for portfolio return and to augment superior risk-return opportunities. Overall, we find that U.S. pension plans tend to invest in U.K. firms for their CFP rather than for their CSP. In particular, they evidence a short-term investment horizon and seek liquidity in positions, in contrast to expectations based on the long-term and predictable nature of their obligations to retirees.

A limitation of our exploratory study is its lack of comparable data for U.S. pension plan domestic investment and U.K. pension plan investment in the U.S. market, making it difficult to draw definitive conclusions. It is possible that, compared with U.K. pension plans, U.S. pension plans tend to invest based on CFP criteria in their domestic as well as nondomestic equity markets, so that our results would not indicate a U.S. pension plan domestic bias with regard to SRI. However, our results with regard to U.S.

pension plan investment in the United Kingdom can be compared with those of Johnson and Greening (1999), who demonstrated that U.S. pension plan domestic investment tilts toward firms with better environmental, as well as community, records. This comparison suggests that there might be a U.S. pension plan home bias concerning SRI. Further research is needed to investigate whether there is a U.S. pension plan home bias concerning SRI and whether SRI home bias is also evidenced by non-U.S. pension plans. This research will be constrained by country-level reporting requirements. For example, there has been relatively little study of variation in share selection procedures across types of pension fund because official U.S. security holding data do not provide information to allow for the partitioning of data with this level of precision.²

As trends should be considered in understanding investment strategy, our study is limited in being cross-sectional. We suggest that Johnson and Greening's (1999) finding of greater levels of SRI among U.S. pension plans for 1996 relative to our finding for 2002 might perhaps be explained by a possible pension plan shift away from CSP toward greater emphasis on CFP in response to the "dot-com" market downturn, due to a sense that earning high investment return now requires focus on narrower, relevant investment criteria.³ In support of this suggestion, the burgeoning growth of hedge funds, which strictly stress CFP and are activist in so doing (Atlas, 2005; Smith & Sender, 2005), is in part due to increased investment in them by pension plans (Brittain, 2001; Getmansky, Lo, & Mei, 2004; Sweeney, 2005). Longitudinal research would help to ascertain whether there has been a trend away from SRI by pension plans. A possible shift away from SRI toward investment based solely on CFP criteria could well be short-sighted, as there might be a lagged, positive relationship between CSP and CFP (Cox et al., 2004). Any possible shift away from SRI would raise a concern for those whose values are aligned with SRI and CSP, reinforcing the need for more research and advocacy.

The finding that U.S. and U.K. state pension plans evidence little interest in SRI might be explained in part by their recent increases in external portfolio management, including use of hedge funds ("Hedge Funds," 2005). Growing concern about the funding inadequacy of U.S. state pension plans (Braunschweig, 2005; Solomon, 2006), which remain largely a defined benefit with guaranteed annuities, may have affected investment strategy, so that past evidence of social and local investing by U.S. state pension plans (Duhlebohn, 1995; Romano, 1993) may no longer be the

case. We note that there is also concern about U.K. state pension plan funding adequacy (Blake & Mayhew, 2006), which could indicate similar pressures on U.K. state plans. However, forces in the United Kingdom to consider SRI in investing decisions and significant U.K. public interest in social investment mitigate these pressures.

Another finding of our study is that U.S. foundation pension plan portfolios, which include religious pension plan portfolios, have no relationship with any of the three dimensions of CSP. U.S. religious pension plans do engage in activism concerning the social issues aspect of CSP by sponsoring shareholder proposals that target multinational corporations about international human rights and labor standards (Holstein, 2006; Proffitt & Spicer, 2006). The activism among religious plans in social issues might appropriate their interest in other CSP dimensions. It is also possible that religious plan shareholder activism could at times be targeted at companies that are low in CSP, with the intent to reform them. Although this activism is well intended and sometimes effective, all pension plans should be mindful of their fiduciary responsibilities (Peterson, 2001). Pension plans should not place overemphasis on the social issues aspect of CSP and should not neglect the dimensions of CSP that have a better possibility for alignment with fiduciary responsibility, such as those used in this study.

As an extension of this research, we recommend studies of pension plans from other domiciles and their investments in domestic and nondomestic equities. We also recommend studies concerning the domestic and nondomestic SRI of other types of institutional investors, in particular mutual funds that specialize in SRI. The increased power of institutional investors during the latter part of the 20th century will likely not abate in the early part of the 21st century, so that further research concerning their socially responsible investment is in order.

Appendix
Beneficial Ownership of U.K. Shares, 1963-2004:
Percentage of Total Equity Owned, December 31

	1963	1969	1975	1981	1989	1990	1991	1992	1993	1994	1997	1998	1999	2000	2001	2002	2003	2004
Rest of world	7.0	6.6	5.6	3.6	12.8	11.8	12.8	13.1	16.3	16.3	24.0	27.6	29.3	32.4	31.9	32.1	32.3	32.6
Insurance companies	10.0	12.2	15.9	20.5	18.6	20.4	20.8	19.5	20.0	21.9	23.5	21.6	21.6	21.0	20.0	19.9	17.3	17.2
Pension funds	6.4	9.0	16.8	26.7	30.6	31.7	31.3	32.4	31.3	27.8	22.1	21.7	19.6	17.7	16.1	15.6	16.0	15.7
Individuals	54.0	47.4	37.5	28.2	20.6	20.3	19.9	20.4	17.7	20.3	16.5	16.7	15.3	16.0	14.8	14.3	14.9	14.1
Unit trusts	1.3	2.9	4.1	3.6	5.9	6.1	5.7	6.2	6.6	6.8	6.7	3.0	2.7	1.7	1.8	1.6	2.0	1.9
Investment trusts					1.6	1.6	1.5	2.1	2.5	2.0	1.9	1.9	1.9	2.1	2.2	1.8	2.3	3.3
Other financial institutions	11.3	10.1	10.5	6.8	1.1	0.7	0.8	0.4	0.6	1.3	2.0	4.1	5.1	4.6	9.9	10.5	11.1	10.7
Charities	2.1	2.1	2.3	2.2	2.3	1.9	2.4	1.8	1.6	1.3	1.9	1.4	1.3	1.4	1.0	1.1	1.2	1.1
Private nonfinancial corporations	5.1	5.4	3.0	5.1	3.8	2.8	3.3	1.8	1.5	1.1	1.2	1.4	2.2	1.5	1.0	0.8	0.7	0.6
Public sector	1.5	2.6	3.6	3.0	2.0	2.0	1.3	1.8	1.3	0.8	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Banks	1.3	1.7	0.7	0.3	0.7	0.7	0.2	0.5	0.6	0.4	0.1	0.6	1.0	1.4	1.3	2.1	2.2	2.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: National Statistics (2005), Table A.

Notes

1. Excluded from the analysis are four U.S. federal plans: Forth Worth, Pension Benefit Guaranty Corp., Atomic Weapons Establishment PF, and the Government Pension Investment Fund.

2. Per the Securities and Exchange Commission (SEC), investment managers are allowed to aggregate the assets of the different institutional clients rather than separately report each client account (Del Guercio, 1996; Gompers & Metrick, 2001). State pension funds are not required to file relevant statements with the SEC (Badrinath & Wahal, 2002), largely precluding their holdings from research. As a case in point, Murphy and Van Nuys (1994) found data on equity holdings for only 13 state pension funds when searching a 5-year period, 1987-1991, on Spectrum tapes that document official 13F security filings of U.S. investment institutions.

3. In 1996, the time of Johnson and Greening's (1999) study, the S&P 500 index, a composite of equity market valuation, rose 19.4%. In 2002, it declined 23.8% (S&P 500 historical data available from <http://finance.yahoo.com>).

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Paul Cox is a senior lecturer in finance at the Centre for Finance and Investment, University of Exeter, England. He is an Economic and Social Research Council Fellow at the Department for Work and Pensions. Prior to academia, his career was as a fund manager at a large investment institution. His research interest is principally based around institutional investment.

Publications of this work appear in journals including the *Journal of Business Finance and Accounting*, *Business & Society*, and *Journal of Business Ethics*.

Marguerite Schneider is an associate professor of management at the School of Management, New Jersey Institute of Technology, and is a member of the graduate faculty at Rutgers University and a research fellow of the Corporate Governance Institute at San Diego State University. She received her PhD in organization management from Rutgers University. Prior to her academic career, she worked in corporate strategic planning and in academic program development. Her research interests include governance, institutional investment, public sector organizations, and leadership. Her work has been published in journals including *Organization Science*, *Academy of Management Review*, and *Business & Society*.

Responsible Investment in Fund Management: It Works, But When?

Paul Cox¹

Xfi Centre for Finance and Investment

University of Exeter Business School

Rennes Drive

University of Exeter

Exeter, EX4 4ST

p.r.cox@exeter.ac.uk

tel: 01392 263234

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Introduction

In 2006 the Government set out some ideas for responsible investment (RI) within Personal Accounts. In 2007 this was developed further through an academic fellowship funded by the Department for Work and Pensions (DWP) and the Economic and Social Research Council. One aim of the fellowship was to assist the DWP develop an understanding of institutional investment and responsible investing. This was achieved through a study that interviewed and surveyed 25 fund management firms between June and November 2007.

¹ The author also holds a part-time seconded position in the investment team at the Personal Accounts Delivery Authority. Prior to academia the author was a fund manager.

The fund management firms selected had broadcast a capability in RI via two networking sites; the UK Social Investment Forum and the Enhanced Analytics Initiative.

25 out of 28 fund management firms agreed to interview. This represented more than 90% of the UK RI fund management industry by assets under management. A major unintended benefit was that the sample was also statistically meaningful in terms of the entire UK fund management industry. As at 31 December 2006, the 25 firms held UK£680 billion in UK equities out of an estimated total market of UK£940 billion under management by UK fund management firms. This accounted for 73% of all equities under management in the UK (IMA, 2007a).

The 25 fund management firms represented a variety of industry sub-sectors, including life insurance firms, independent fund management firms, fund management firms owned by banks and pension funds with their own inhouse fund managers. The fund management firms managed RI mandates on a segregated and on a pooled basis, on an active and passive (index) management basis, and used specialist, balanced and benchmark driven mandates for institutional and retail clients. The funds invested in UK, European, emerging and global securities.

This manuscript presents the results of this research. The principal finding is that RI works, but there are major questions concerning when, and by how much.

Summary

The research finds that RI is now an accepted and for some an important part of what fund management is about. At its heart, RI means something less precise than executing on an investment decision in response to a single catalyst that is going to impact in a specific time period.

RI means something longer term. It means having an expectation that future improvement in financial performance will come from giving more thought to the longer term than has traditionally been the case. It is looking ahead and bringing to light risks that are in the system some time before they impact. It is talking about how the story may go when the risks impact and deciding on action whilst the risks remain latent. It is doing things at that early stage based often on an imprecise probability of something happening over some unspecified time period. It is doing things that do not always seem especially relevant from the perspective of what is expected to immediately happen next. For many fund managers this meant that RI stood apart from conventional investment.

Behind this action stood another difference from conventional investment. This is the idea that undertaking such activity can lead markets to have a straighter run. This comes from the perspective that investment risk and volatility are not pre-determined but are able to be shaped and influenced. They are socially constructed phenomena and not a given. The continual activity of RI analysts and fund managers reacting to the different directions that markets might conceivably take according to how they expect RI shocks and stresses to arrive and impact as well as how long-term sustainability themes and issues play out as events unfold means that markets are more able to go straight on.

Any investment process that claims to lead markets to be more stable and less likely to change to the extent that they otherwise might have warrants close attention. It represents a potentially powerful outcome for the ultimate beneficiaries of most institutional investment activity which are those who hold medium and long term pensions, life insurance and term policies. Many millions of people stand to benefit from investment outcomes that can improve security of financial welfare close to, and in, retirement.

The conclusion of this study is not that RI is right for all investors. Additional charges are incurred to crystallise performance which, although there, is itself subject to uncertain timing, impact and even measurement. This makes

evidence on performance difficult to firm-up, which in turn means that a potential investor will require at least some belief that it can be sufficiently informed and persuasive in its investment and in its influence on RI to make a positive difference to performance and outcomes.

Contribution

The research makes three particular contributions. One contribution is insight and evidence on how responsible investment emerges as financial performance. Fund managers gave three reasons. One way was to understand and capture the financial dividend attached to more responsible firms. The paper performs an extended literature review to examine this. A second way involved bringing about influence at the level of the firm. The third way involved bringing about influence at the level of public policy that would then benefit all of a fund's holdings. The paper provides an extended description on each of these as well as case examples.

A second contribution is insight and evidence on operational and delivery aspects of responsible investment. This includes detailed examination of information and staff as inputs into responsible investment, the measurement of the quality of responsible investment within fund management firms, and examination of costs and charges associated with the range of responsible investment possibilities. This more discursive analysis develops and extends understanding of responsible investment within an institutional fund management setting.

A third contribution is insight and evidence on behind-the-scenes communication between fund managers, as investors, and corporate directors, as stewards of investors' funds. Fund managers gave a total of six reasons for communicating with corporate directors. These were obtaining investment information as ideas for trading securities, communicating to achieve influence, building and maintaining relationships, consultancy, corporate disclosure and influence on public policy. The paper provides an

extended description for each reason, ranks their importance, and highlights conflicts through the use of case examples.

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Responsible Investment in Fund Management: It Works, But When?

Contents

Chapter Summary		7
Chapter 1	Participation in Responsible Investment	11
Chapter 2	Approaches to RI	17
Chapter 3	Fund Managers Use of Information to Perform RI	24
Chapter 4	Communication with Corporate Directors	34
Chapter 5	RI Staff within Fund Management	45
Chapter 6	How RI Achieves Financial Performance	54
Chapter 7	Limitations on Performance Due to Valuations, Charges and Costs	61
Chapter 8	Five Areas of Potential Interest and Value for Buyers of RI	68
Bibliography		72
Appendix 1	Research Methods	84
Appendix 2	Literature Review on the Financial Performance of More Responsible Firms	89

Chapter Summary

Chapter 1 examined why the fund management firms had participated in RI. In all, the fund managers gave 6 reasons. These were interest in sustainability, valuation, evidence on climate change, universal ownership, fiduciary duty, and legislation and encouragement. There was a pattern to the reasons given. For example, fund managers of pension assets tended to highlight universal ownership. Fund managers of charity assets tended to highlight legislation. Fund managers that focused on a best-in-class approach to RI tended to highlight sustainability, and fund managers that focused on an integration approach tended to highlight valuation.

Chapter 2 presented the four approaches to RI in evidence amongst the fund management firms. These were screening, best-in-class, influence and integration. Very few firms remained at all interested in screening. Fund management firms that did screen tended to have charities or individuals as their major clients rather than institutions. A best-in-class approach was most in evidence amongst smaller, more specialist RI fund management firms. An influence approach to RI was most apparent amongst fund management firms with an activist approach as well as those that had a separate engagement and voting service offered to other investors. Overall, by far the greater focus was an integration approach. For some fund managers integration rarely meant a radically different weighting or investment holding period to conventional investment. At best it meant cutting a little here, adding a little there, or weighting securities the same as conventional investment but holding them a short while longer or less. Due to this, the approaches most in evidence were not necessarily those most likely to make a major difference to solving structural problems based around long-term sustainability. Rather, they tended to be those whose performance was the simplest to realise, most straightforward to measure, and that fit easiest with the existing fund management investment process.

Chapter 3 reported that in order to perform RI, fund management firms sought a large quantity and broad range of information. The fund managers desired

granular and detailed RI information that was not publicly available. The most important source of this was private one-to-one meetings with corporate directors. The information obtained was useful of itself in trading securities. It also added to inhouse knowledge on issues, themes, sectors and companies. When mixed with inhouse knowledge new insight and evidence often emerged. This was described as an information mosaic and was a further major source of knowledge and understanding for fund managers. The company annual report was a more important source of information than broker research, which was seen as unreliable except for its factual information. Research published only upon major developments or on an ad hoc basis was less relied on. Acquiring RI information rarely meant obtaining a single piece of information that markets would respond to following a specific catalyst over a specific time period. Rather, it involved acquiring many types of information, some it timely, some of it not, some highly reliable, some not so, some of it precise and some of it not. This information became general and background research as well as contributed to specific viewpoints and actions on companies, issues and themes.

Chapter 4 focused on why communicating behind-the-scenes with corporate directors was so important to RI fund managers. The fund managers gave 6 reasons. The most important was obtaining investment information as ideas for trading securities to improve the financial return of the portfolio. This was most used by fund managers with best-in-class and integration approaches to RI. Next in importance was communicating to achieve influence. Building and maintaining relationships was a reason that all fund managers met with corporate directors regardless of their approach to RI. The other three reasons; consultancy, corporate disclosure and influence on public policy, were sought by very few fund managers but those that did emphasise these reasons had a very high conviction in their benefits. When communicating with one another both fund managers and corporate directors were aware of what could and could not be said due to price sensitivity and materiality rules. Importantly, because RI focused on the longer term, many more issues could be discussed in more detail before coming up against issues of materiality. This made discussion of topics around RI a very good way of understanding

companies. The value that these conversations bring for the trading of securities is one possible explanation why influence was much less sought by a majority of fund managers.

Chapter 5 reported on staff resources used to execute RI. On average, 85% of the total cost of providing RI was staff and 15% was information. Commission allocation was used to pay for most of the information cost. Both active and passive managers used commission allocation to purchase information and research. RI staff were mostly employed in fund management and analytical positions. These staff would move across to support marketing, client servicing, corporate governance and voting as circumstances required. The median number of full time equivalent RI staff in each fund management firm was 4. The most frequent occurring number was 3. The highest quality RI took place in small, specialist RI fund management firms. The lowest quality RI took place within index fund management firms. This was based on a measure of quality from an analysis of the relationship between the number of full time equivalent RI staff and the number of lines of stock held by each fund management firm.

Chapter 6 focused on the ways in which RI became financial performance. One way was to understand and capture the financial dividend attached to more responsible firms. This was the most sought by fund managers with a best-in-class or integration approach. The other two ways involved seeking influence. One involved bringing about influence at the level of the firm. The other involved bringing about influence at the level of public policy that would then benefit all of a fund's holdings. The outcomes of influence based on RI were not straightforward to measure. Staff who had done this for a while spoke about instinctively knowing when there was a successful outcome. The performance tended to elude measurement but all insight and intelligence was informing them that it was there. Ironically, it was often RI that was the least measurable that stood to impact the most. A single programme of influence based on public policy was in principle capable of delivering more than any single programme of influence based on a single firm or piece of integrated financial analysis could achieve. A screening approach to RI was also said to

bring about influence at the level of the firm, but to do so in a way that was negative for portfolio performance because at the point of change the portfolio is not a holder of the security and so completely misses out on any market reappraisal of the security.

Chapter 7 examined limitations to financial performance as a result of higher RI valuations, charges and costs. The fund managers strongly believed that more responsible firms did not yet trade on higher valuations. This meant that the dividend was available to those that researched it. There were additional charges for RI. On average RI added 18% to the fund management fee for a £100m mandate, 14% to a £200-£500m mandate and 13% to a £1bn mandate. The precise value of the extra charge depended on the degree of RI undertaken. For example, a low charge RI fund tended to undertake screening only. A higher charge RI fund tended to undertake integration, influence and screening. The fund managers said that any extra charge needed to be put into perspective because it was not the most important determinant of the overall fund management fee. A small number of fund management firms did not charge more. These also allocated the fewest resources to RI and so had some of the lowest quality RI. The large majority of fund managers said that their approach to RI had exactly the same portfolio trading costs as conventional funds. A small number of fund managers disagreed, and provided evidence that their approach to RI meant lower portfolio trading costs. In effect, valuations of more responsible firms and RI portfolio trading costs were neither higher nor lower than conventional investing, but that fund management charges were on average 14% higher.

Chapter 1: Participation in Responsible Investment

Notation

Most fund managers used the term Responsible investment (RI) to mean an approach that focused on using information on the environment, society, workplace and governance in the selection of investments and to influence a company's corporate directors for the improvement of corporate performance. The term ethical investment tended to mean an approach that included the screening of prospective investments for whether they meet ethical and values-based thresholds. This paper uses the same terms according to the meanings above. The focus of fund managers was the social responsibility of the firms that they held investments in and not of their own employers.

The fund managers gave 6 reasons for their firms' participation in RI. These were interest in sustainability, valuation, evidence on climate change, universal ownership, fiduciary duty, and legislation and encouragement. Overall, there was a pattern to the reasons given by the fund managers. For example, fund managers of pension assets tended to highlight universal ownership. Fund managers of charity assets tended to highlight legislation. Fund managers that focused on a best in class approach to RI tended to highlight sustainability, and fund managers that focused on an integration approach tended to highlight valuation.

Each of the reasons given by the fund managers is developed further below:

1. Interest in Sustainability

The fund managers pointed to increasing interest in sustainable development, including a growing market for responsible saving and investment and

growing wholesale and retail markets for products and services consistent with a more sustainable lifestyle (Sparkes and Cowton, 2004).

2. Valuation

A large number of fund managers pointed to an emerging consensus that the environment, society, workplace, business values and governance impact corporate fundamentals, valuation, and investment performance. The fund managers gave three reasons for this development. First, the role of intangible drivers of firm value has expanded. Intangibles include skills, knowledge, innovation, information technology, reputation, business ethics and values, interactions with the environment, society and the workplace. Second, globalisation means that there is greater social, political and environmental complexity that firms need to manage. Third, developments in corporate social and environmental reporting mean that these issues can more easily be brought into the estimation of valuation and the future trajectory of a firm. Developments in reporting include the Global Reporting Initiative and Carbon Disclosure Project.

3. Evidence on Climate Change

The 2006 Stern Review on the Economics of Climate Change had firmed-up demand for RI. The fund managers said that the Stern Review had illustrated the impact that not pursuing responsible investment might have on companies and the economy. According to the Stern Review climate change “is the greatest and widest-ranging market failure ever seen” (Stern, 2006 i). If the world does not act to limit carbon dioxide emissions “the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever” (Stern, 2006 vi). “Markets for low-carbon energy products are likely to be worth at least \$500bn per year by 2050, and perhaps much more” (Stern, 2006 xvi). Climate change policy will reform inefficient energy systems and remove distorting energy subsidies on which governments around the world currently spend around \$250bn a year. The motivation for individual companies is that performing business in a

responsible way may help mitigate risk, capitalise on forthcoming opportunities, reduce existing inefficiencies, and draw attention to money-saving opportunities.

4. Universal Ownership

Fund managers that had large pension fund clients or who worked inhouse within pension schemes in particular emphasised universal ownership. The concept of universal ownership is founded on the belief that the interests of large investors are very broad. The typical universal owner is a large pension fund with a spread of portfolio holdings around the world. With investments diversified across countries and industries this type of investor will own a part of the global economy. As such, the interests of a universal owner are aligned with the broad interests of the global economy. One interest of a universal owner is to ensure that companies bear the full economic cost of their activities. Not doing so might mean that costs are passed onto another company within the global investor's portfolio, with the result that there is no investment gain. For example, if a company offloads its waste into the sea, this may have a negative impact on the fishing and hospitality industries. Although the first company avoids the cost of dealing responsibly with its waste, this is felt in another area of the economy, which leads the universal owner not to gain by this behaviour. In some instances the cost of negative externalities may exceed their cost of mitigation, resulting in a net loss for the economy and the investor, for example, emissions that lead to global climate change (Stern, 2006). For the universal owner, externalities are not a positive sum game and are unlikely to lead to wealth creation. This creates an incentive for the universal owner to minimise negative externalities and maximise positive ones across portfolio holdings.

5. Fiduciary Duty

Many fund managers considered that the traditional view of fiduciary duty, in which trustees must act solely in the narrow financial interests of beneficiaries, was an outdated interpretation of the law. This was not intended

to mean that there is a fiduciary duty to take decisions on the basis of RI, only that a position on RI was not of itself a violation of fiduciary duty. One participant who worked inhouse within a pension scheme had received legal advice that integration and engagement based on RI principles should take place where the issues might be material to investment performance. Screening on an ethical basis fell outside of fiduciary responsibility and could leave trustees open to challenge.

‘Our trustees decided that ethical screening was something they could not do and that still is the legal advice today. We cannot screen on an ethical basis alone, that falls outside our fiduciary responsibilities and could leave us open to challenge. These ESG [environmental, social, governance] issues – we call them extra-financial because they are not non-financial – where they are material to investment decisions they should be included, that’s the legal advice that we have. The problem with materiality is over what time frame. As a pension fund we do not need to attract clients or sell a story. We need to be doing things which maybe in the short term are not relevant to us but in the long term may benefit our fund’.

Another inhouse fund manager within a pension scheme stressed that when taking investment decisions on long-term issues it can be difficult not to take a position on RI, even though this might not be borne from an explicit position on responsible investment:

‘We do not generally concern ourselves with responsible investment per se. Our advice is that our managers must be free to make economic decisions. We believe our starting point is to ensure that the investment remit sets incentives for managing for the long term. It just so happens that companies that are expected to perform well in the long run are also those that tend to follow RI policies themselves. As a result of investing for the long term we tend to also invest responsibly, but I need to stress that this relationship is indirect. We do not come about this from any goal for RI’.

A third fund manager said that its firm had decided that the RI remit is borne out of fiduciary responsibility and is therefore part of the proposition to all clients.

'The responsible investment remit comes from fiduciary responsibility. We engage with companies so that we can understand them and because we believe that environment, society and corporate governance matters may be linked to financial performance and company value'.

6. Legislation and Encouragement

In recent years government and industry have sought to strengthen the role of RI within fund management. The fund managers pointed to a number of initiatives. These are listed below, starting with statutory legislation, and moving through to industry encouragement:

i. Legislation

Statutory Instrument 1999 No. 1849 and 3259

A 1999 amendment to the 1995 Pensions Act (Statutory Instrument 1999 No. 1849 and 3259), commencing July 2000, requires that trustees of occupational and local government pension schemes disclose in the Statement of Investment Principles (Pensions Act, 1999a and 1999b):

'The extent (if at all) to which social, environmental and ethical considerations are taken into account in the selection, retention and realisation of investments'.

This legislation had the effect of putting pressure on pension schemes to at the very least disclose that they were doing something in this area, which in turn prompted fund managers to demonstrate that they were too.

Charity Commission Guidance 2003

In 2003 the Charity Commission published guidance for trustees of charities on permitted ethical investment (Charities Act, 2003). This suggested that a charity may invest its endowment² in a way that does not conflict with the charitable purpose. If a charity was not to do so it may put-off potential financial donors and alienate supporters (Charity SRI, 2008). This means that screening of investments is acceptable even though doing so may, in theory at least, lead to incomplete investment diversification.

ii. Industry Encouragement

Life Insurance industry

The 2001 Association of British Insurers's (ABI) report, 'Investing in Social Responsibility', aimed to convince life insurance members that good practice within fund management meant both RI and encouraging corporate issuers to improve social and environmental reporting. It suggested that members adopt the report's recommendations on RI and engage with companies based on the disclosure guidelines for corporate issuers on social and environmental reporting.

Local Authority Pension Funds

The Local Authority Pension Fund Forum (LAPFF, 2008) has set a mission statement for its many Local Authority pension scheme members that includes responsible investment, this being to:

'promote the investment interests of local authority pension funds, and to maximise their influence as shareholders whilst promoting corporate social responsibility ... amongst the companies in which they invest'.

² The aim is to safeguard its value as well as grow it further.

Chapter 2: Approaches to RI

The fund managers participated in RI through four broad approaches. Three approaches involved portfolio construction. These were screening, best-in-class and integration. The fourth approach was different. It started with a portfolio that had already been constructed on the basis of financial suitability. The principles of RI were then applied to this portfolio for the improvement of individual firms as well as the entire portfolio. The most precise term for this fourth approach was influence. Sometimes the less precise term of engagement was used. The term engagement was less precise because it was a mixed use term. The closest meaning of the term engagement was communicating with corporate directors. The reason for this communication might be influence, but equally it might not. For example:

'We actually engage with companies for three purposes. One is information and research, a second part is engagement for influence and change, and the third thing is we do is relationship building. Usually the engagement delivers one of two of those, but occasionally it may deliver all three or deliver nothing'.

Due to engagement being a mixed use term, this study will use the term influence to describe the fourth approach to RI. Further detail on the term engagement is provided in Chapter 8. The four approaches to RI in evidence among the fund management firms are developed below:

1. Screening

Screening involved testing a potential or actual investment against a set of RI measures, for example performance on the environment, society, the workplace, ethics and business values. Only investments that pass the various tests were considered candidates for portfolio inclusion. Whether or not investments that pass are then selected for portfolio inclusion depended on their financial suitability. The type and intensity of the screens was often decided with input from the client. According to one fund manager:

'We avoid investment in companies whose main business is gambling, tobacco or armaments. This policy also applies to bonds issued by companies in these sectors. Before making an investment in a property we make sure that it is subject to an appropriate environmental risk report'.

Most fund managers said that considerably less than 10% of their funds under management involve RI screening. This is because pension funds and other institutional owners had little demand for screening. Most fund management firms only screen when requested by a large client. Where there was institutional demand for screening, this tended to be based on conformance with international declarations and agreements.

'We do offer screened ethical funds for investors who want to exclude companies engaged in certain activities. The institutional market does not have a strong interest in screening although we do have some institutional clients that have some screening'.

Church and charity funds tended to still demand screened investments. This market segment was served by a small number of dedicated fund management firms, for example CCLA, as well as charities divisions within the larger fund management firms. This meant that a small number of fund management firms still routinely screen investments.

2. Best-In-Class

The aim of a best-in-class approach was to identify companies and industries which are the best social, environmental, and ethical operators. Best-in-class might mean looking at the best companies within their resident industry.

'When we say RI, the process is to do sector reports, developing an idea of what best-in-class might be, what laggards might be and identifying areas of risk in companies we hold or might want to hold.'

This naturally becomes best-in-class. We do this for our main stream process’.

‘The way we operate is to look at each company in its industry context. We only invest in companies which are on top’.

Alternatively, best-in-class might mean looking at the best industries within the global economy. The aim was to identify which industries are the best operators from the viewpoint of a more forward looking and sustainable form of capitalism, and invest more in them³.

‘We are trying to work to a way now whereby the capitalist model starts taking more account of environmental drivers rather than just performance. If you look at each company in isolation I don’t think the fund manager will have enough information to base investment on. The information would be disjointed and I don’t think that process would work’.

In order to be best-in-class, a firm or industry needed to score well against a range of factors. The fund managers claimed that this meant the approach was good at identifying firms and industries with a more comprehensive performance record. For example, the approach placed a major focus on how profits were generated and the sustainability of the profit generating model rather than just the quantity of profits over a short time horizon. Smaller, more specialist RI fund management firms tended to focus most of all on a best in class approach. A number of major investors were starting to allocate a small part of their active management risk budget to such funds.

3. Integration

A major aim of integrated financial analysis was to investigate risks and opportunities not covered by conventional financial analysis. Integration

³ This was sometimes referred to as sustainable investing.

usually meant bringing the environment, society, workplace, ethics, business values and governance into the evaluation and valuation of an investment. Where these issues were material to the firm they were brought into the investment decision. This was said to result in a more complete evaluation of risks, opportunities and long-term performance and a more enlightened financial valuation. Integration naturally led to a greater focus on intangibles, globalisation and complexity for social, environmental, workplace and governance issues are more prevalent within these topics.

'We integrate environment, society and corporate governance across all funds - we take across the qualitative factors that are pertinent and what we think will be relevant. This intelligence is passed to the fund managers'.

Some fund managers used the term integration to mean something more encompassing. To them, the aim of integrated financial analysis was to draw on the widest possible range of risks and opportunities. Remarks by fund managers that fell into this category included:

'We unearth missing links in value. That is our value proposition to clients'.

'Research is whatever is significant to a particular firm and industry'.

'The goal of lowering risk for clients defines the areas of research'.

'There is a constant search for financial materiality and how such themes play out at the level of the firm'.

This form of integration promised a great deal but when asked to give details about what this looks like the responses tended to lack conviction and clarity. Further detail on this can be found in Chapter 8. In spite of vagaries about how integration was discharged a significant number of fund managers said

that there was substantial client demand for this approach to RI. There was more focus on integration than any other approach.

In other situations fund managers' approaches to integration closely resembled conventional investment. Here, RI rarely meant a radically different weighting or investment holding period to conventional investment. At best it meant cutting a little here, adding a little there, or weighting securities the same as conventional investment but holding them a short while longer or less.

Integration was most pursued by active fund managers with a growth investing style, a mixed style that was benchmark driven and neither growth nor value, or a value style based on firms that were efficient and well managed but inexpensive and undervalued.

Growth and Value

Growth investing involves identifying securities with rapid growth prospects often at an early stage of development. This tended to involve a focus on small and mid capitalisation firms where there is less analyst following and where the science behind the firm may only be patchily reported. It also meant investing in large companies where there is an expectation that the market has underestimated the firm's growth prospects.

The form of value investing described above involves identifying efficient firms that are overlooked or unfashionable, and therefore inexpensive and undervalued. Yardsticks were used to identify inexpensive securities with adequate safety margins versus fair value. The strategy was then to wait for the market to correct or to sometimes encourage the market to correct by a higher level of reporting and disclosure.

4. RI Influence

Before influence can operate a portfolio is first of all constructed according to financial suitability. The principles of RI are then applied to individual firms in the portfolio as well as the portfolio as a whole.

Influence based on RI involves encouraging the corporate directors of a company, where appropriate, to bring about improvement in matters of the environment, society, the workplace, ethics, business values and governance. It also involves exercising investment and ownership rights in a manner that is consistent with a fund management firm or client policy on RI, corporate governance and voting.

The aim of influence was to encourage and support corporate directors strike the best balance between risk and return that is in the best interests of long term owners.

'We've very much taken the influence route. A stock which the fund manager is interested in can be bought even with a poor extra-financial rating. We engage with the company to understand why they have this poor rating and what they are doing to improve it'.

The process of influence may involve one-to-one-meetings with corporate directors, questionnaires, phone calls, written correspondence and collaboration with other fund managers. The intended outcome of this effort is that companies will have greater willingness to:

- ◇ Act in a responsible way and consider their impact on the environment and society.
- ◇ Consider the changing nature of business in society.
- ◇ Consider the business importance of managing factors external to the firm, such as climate change and pollution.

- ◇ Consider how legislative developments can turn economic externalities into financial liabilities and transform products with zero value into ones with value, such as waste and recycling.
- ◇ Work with major shareholders to identify these factors early, and to consult on how to manage them.

Fund managers highlighted the need to sometimes become more involved. For example there may be actual and immediate underperformance, a material reputation risk, or a corporate trajectory may have been identified that could lead to significant underperformance. This required being more persuasive and influential in dialogue and approaching issues with greater firmness and persistency. This was often aided by working together with like-minded institutional owners, especially coalitions of investors from more than one country. The fact of a coalition served to increase influence and expedite change more efficiently on certain issues, but it was second order in importance to the need to be informed and persuasive.

Influence was pursued most by fund managers with an activist approach and also fund management firms that also offered an outsourced engagement and voting service to other investors such as pension funds and charities.

Activism

An activist approach meant investing in firms that were either not performing as well as they could from an economic perspective, were in some way financially distressed, or were in a special situation in which share ownership had the means to be particularly influential, for example an expected takeover situation. Influence was exerted to bring about improvements in corporate governance, corporate strategy or management quality. Further detail on activism can be found in Chapter 6, Section 2.

Chapter 3: Fund Managers Use of Information to Perform RI

The key to RI fund management lay in bringing capable and skilled staff into contact with a large quantity and broad range of appropriate information, data, advice, recommendations, and reports. This endeavour led to research outputs in the form of insight, evidence and knowledge that informed fund managers decisions. Information and staff are therefore fundamental to RI. Information is the focus of this and the next chapter. RI staff within fund management firms is the focus of Chapter 5.

In this current chapter the term information is used to include data, communication and dialogue, advice, recommendations, news and reports. There are three sections in this chapter. Section 1 examines where fund managers obtained RI information. Section 2 examines the importance attached to RI information. Section 3 gives examples of uses of RI information.

1. Sources of RI Information

Every interview revealed that fund management firms were sophisticated gatherers and users of RI information. This is consistent with findings from other interview-based research (Holland, 1998a; Barker, 1998; Gaved, 1997; Stapledon, 1996) as well as non-interview-based accounting and finance research (Aggarwal and Rao, 1990; Utama and Cready, 1997; Bushee and Goodman, 2007; Ajinkya, Bhojraj and Sengupta, 2005). In order to meet their need for RI information, the fund managers drew on information from companies, brokers and other research organisations. Each of these is described below.

Companies

Companies provided RI information via the annual report and accounts, by communicating directly with corporate directors and through other company media.

The annual report and accounts

There was a broad consensus that company reporting on interactions with society and the environment had made significant progress in recent years, particularly among large UK firms. The fund managers said that RI relevant information was very useful when it was integrated with the main annual report because the annual report is independently audited. There was little interest in separate corporate responsibility reports because these were not subject to accounting standards or independent audit. Although the annual report was a key source of factual RI information about companies, it was not able to meet all fund managers RI information needs. This is because the annual report is a record of the past, has limited forward looking information, is designed to meet the information needs of many different stakeholders, and there are limits to what can reasonably be printed within one document.

Direct communication with corporate directors

As major shareholders, fund managers regularly communicated in private with corporate directors. This included written communication, phone calls and one-to-one meetings. Written communication was used to express a formal opinion, because there was not the time or fund manager resources to meet face-to-face, or because written feedback was desired. For example, an RI analyst may send a questionnaire for the firm to complete and return. A phone call tended to be put to the company only when an RI matter had arisen that could not wait until the next regular face-to-face meeting. For example, a fund manager may need clarification on an issue before coming to a voting decision in time for the annual general meeting.

One-to-one meetings with corporate directors were conducted in private and face-to-face. Meeting with corporate directors was a chance to directly and personally learn about the company, competitors, industry and market. The meetings provided a chance for the fund managers to uncover new RI

relevant facts, fill gaps in RI knowledge, confirm their existing thinking about the firm, clarify opinions, and test their views on what corporate directors were thinking. Most of all, RI information in relation to corporate strategy was sought. Operational RI information was sought in instances where external performance metrics are not well developed and where accounting standards and statements require few public disclosures. So important was direct communication with corporate directors that it is the subject of the next chapter.

Other company media

Occasionally the fund managers drew on a variety of other company media, including conference calls, road show presentations, investor relations activities and the company website. These were rarely used due to their limited reporting of RI information and the unaudited nature of the reporting.

Brokers

The research, sales and trading desks of investment banks, or brokers, provided RI information via published research and broker organised meetings with companies.

Broker published research

Brokers published specific research on RI, as well as integrating RI information within mainstream company research. Broker research on companies was useful for its factual and background information, but not for its forecasts and recommendations. Brokers' forecasts and recommendations on companies were seen as overly optimistic and self-serving. This stemmed from a belief that brokers want fund managers to trade regularly in order to generate commission income from trading. The fund managers also believed that there was a favourable report bias due to brokers wanting to please corporate directors in order to win future investment banking business and to ensure continuing good access to company executives. The fund managers said that broker research that focused on sectors, industries and RI themes was better quality and far more useful than that which focused on companies.

Broker organised company meetings

Brokers were in a good position to arrange meetings between fund managers and corporate directors due to their close relations with both groups. In attendance would be the broker, one or more company directors and a small number of invited fund managers. The meeting format could be relatively small and intimate, involving one or two fund managers, or a larger roundtable discussion involving five or sometimes more fund managers. Since the fund managers did not receive the company's sole attention, they tended to ask only those questions that they did not mind others in the room hearing the responses to. The fund managers said that this meant the meetings were of less value than if they had held a one-to-one meeting with corporate directors.

Other Research Organisations

The fund managers drew on a network of other organisations. This network included dedicated independent investment research providers⁴, providers of social, environmental and governance research, non-governmental organisations, lobby groups, grassroots activists and expert individuals. Some of these organisations were regulated by the Financial Service Authority (FSA), but many were not. The quality and timeliness of the RI information was said to vary a great deal. Also, some research was only published upon major developments. This tended to make it difficult for fund managers to rely on, and as a result it was less important than other sources of RI information.

2. Importance Attached to Sources of RI Information

The fund managers were asked about the importance they attach to the different sources of RI information. They were also asked about the importance of this information when it was combined with existing inhouse knowledge. Some fund managers used the term information mosaic⁵ to

⁴ Independent investment research providers have rapidly grown during the first decade of this century in response to initiatives by the Financial Service Authority to encourage commission unbundling.

⁵ The term dates back to Loomis (1972).

describe this mix of external information and inhouse knowledge. The table below summarises the fund managers' responses. Results are in descending order according to the mean score given by the fund managers. A five point scale was used; where 4 is 'very important' and 0 'not at all important'. The maximum possible mean score is 4 and the minimum 0.

Importance Attached to Sources of RI Information as Revealed by Fund Managers, 2007

Information Source	Mean Score	Company: Direct communication	Information mosaic	Broker: meetings with companies	Company: annual report	Broker: research	Other research organisations
Company: Direct communication	4.00						
Information mosaic	3.71	0.14					
Broker: meetings with companies	3.30	0.54	-0.40				
Company: annual report	3.21	-0.63 *	-0.49	-0.09			
Broker: research	2.80	-1.08 ***	-0.94 **	-0.54	0.45		
Other research organisations	2.72	1.12 ***	0.99 ***	0.59	0.49	0.05	
Company: other media	2.53	-1.32 ***	-1.18 ***	-0.78	0.69	0.24	-0.20

***, **, * represent significance at the 1%, 5% and 10% level respectively.

In the table above, the second column in from the left presents the mean score for each source of information. The fund managers reported that direct communication with corporate directors was the most important source of RI information. Most of all this involves one-to-one meetings with corporate directors. This result supports earlier work by Barker (1998) that fund managers find one-to-one meetings with companies the most important source of information. The second most important source of RI information is information mosaic – the outcome of mixing external information with inhouse knowledge to reveal fresh insight and evidence. Third in importance is broker organised meetings with companies.

Columns three to nine from the left present estimates of an analysis of variance (ANOVA). The ANOVA examines the variation in the scores given by fund managers for all the possible pairings of sources of RI information. Numbers with asterisks highlight statistically significant differences between each information pair. One noticeable result is that the top three sources of RI information; direct communication, information mosaic and broker arranged meetings with companies, are not statistically different from one another.

Looking further down the table, it is notable that fund managers give more importance to the annual report than broker research. Reasons for this include the credibility provided by auditors in the annual report and a lack of independence and peer review in broker research. Statistically, direct communication is a more important source of RI information than the annual report (10% level of significance), broker research, other research organisations and other company media (each 1% level of significance). Other than direct communication with corporate directors, no other source of RI information is statistically more important than the annual report at the 10% level or better. This highlights that fund managers do attach major importance to the annual report despite criticisms sometimes made of it. This also means that in at least one sense direct communication with corporate directors stands apart from all other sources of RI information.

Other research organisations are of slightly lower importance than broker research. This may reflect the variable quality and timeliness of this source of RI information. The least important source of RI information is other company media. This reflects a belief that the company may use these communication channels to deliver a particular message rather than a balance of information. There is no independent auditing of this RI information.

3. How Fund Managers used RI Information

Acquiring RI information from the various sources described above rarely meant obtaining a single piece of information that markets would respond to

following a specific catalyst over a specific time period. Rather, it involved acquiring many types of information, some of it timely, some of it not, some highly reliable, some less so, some of it precise and some of it not.

'We desire access to information not in the public domain, granular and detailed. The information we gather privately is not specific enough to be price sensitive in the short term; it's about highlighting risk over the long term. You are not identifying a specific factor which is going to come to light in a specific time frame following a specific catalyst. You are highlighting a higher risk of something happening at some stage in the future.'

The value was in piecing the information together, as well as combining it with existing inhouse knowledge and understanding.

One use to which this information was put concerned research on issues and themes. These often transcended national borders. Examples of issues and themes include access to clean water, access to medicines, health and obesity, pandemics, ageing populations, human rights, immigration, employment, climate change, biodiversity, renewable energy, technology and the internet. Once an issue or theme had been identified, an on-going base of long term research was undertaken. Of itself, this base of research was neither precise nor short term enough to take investment action on. An additional research task therefore involved looking for specific catalysts that might cause one or more issues or themes to rapidly grow in investment importance. This needed to mean something more than assigning a probability to an event occurring over some unspecified future period. It needed to mean having a high conviction that the market was going to react to a specific catalyst over a specific period in a way that was material to the trajectory of a security, sector, or market. The most frequently mentioned catalysts were regulation, legislation and the tax system. Changes in these might lead one or more issues or themes to move up or down global and national agendas and bring about investment significance. For example, the

introduction of carbon credits in Europe has forced all fund managers to bring the cost of carbon into the evaluation of investments.

Examples of how information was used

A Base Theme

One example of a base theme is climate change. The fund managers pointed to the significant body of scientific evidence that climate change is real, and that the impact for global GDP is more severe the longer action to stop it is delayed (Stern, 2006). Yet a high probability of a significant reduction in GDP at some unspecified point in the future was not something the fund managers were willing to meaningfully act on today. The topic lacked urgency because it lacked a specific catalyst that would make the impacts felt over a specific time period. As it currently stood, the topic was too large, too complex, and too long term to lead to a fundamentally different way in which RI portfolios were constructed even though many fund managers believed that it one day would.

A Base Theme that Grew in Importance

An example of a theme that had gradually grown in importance is palm oil. In this instance concern lay with a particular industry. For several years the planting and harvesting of crops for fuel had been looked at by a small number of fund managers. In 2007, and in response to growing media about rainforest destruction and the extinction of the orang-utan, several fund management groups contacted European companies in the food retailing, production and utility and energy sectors to raise biodiversity issues. Companies that had not already done so were encouraged to join the Roundtable on Sustainable Palm Oil. This was said to have led to a successful outcome because it averted a higher risk of a greater negative market impact in the future.

Company Issues that Rapidly Grew in Importance

An example of an issue that rapidly grew in importance is human rights. In this instance concern started with a particular company. Bulldozers from Caterpillar, a heavy goods manufacturer, were reported to be amongst those that pulled down homes and built the separation barrier around parts of the West Bank. In 2004, The International Court of Justice ruled that the barrier was illegal. As a result of this ruling, several fund managers began to have concerns about adverse human rights impacts. Fund managers increased the intensity of their research in this area. Based on this, most decided that influence and learning through consultation with Caterpillar was a more appropriate way forward than divestment. Being in conversation with the company was a means to filling a major gap in knowledge and a means by which concerns expressed from both sides could be heard and responded to. Furthermore, Caterpillar had local managers and staff on the ground, so was well placed to monitor end impacts, reduce the potential adversity to people's lives, and feed back information to the fund managers.

A second example of an issue that rapidly grew in importance concerns the rights of workers. Concern again started with a particular company. In 2006, British Airways (BA) suspended an employee for wearing a necklace with a pendent cross suggesting the Christian faith. Suspension was based on a breach of the company's uniform code. BA's uniform and dress codes allowed people of various faiths to display signs of their faith, including Muslims and Sikhs, but not Christians. The Church of England's ethical investment advisory group and the Church of England's investment bodies interacted with BA. Initial public disagreement gave way to effective behind-the-scenes dialogue which helped establish a workable solution for a new uniform policy. In early 2007 BA made a public statement in support of a change in its uniform policy that would allow Christians to display their faith through a visible pin, as well as allowing some flexibility to wear a cross on a chain. This may not have impacted financial performance but the media story was impacting reputation, and considerable corporate resources were being

diverted to dealing with a defence of reputation rather than improving corporate performance.

Firm Issues used in Trading Securities

In other situations, RI information led to a specific viewpoint and then trading. One example is waste. More than one fund manager said that some of the questions that RI fund managers ask when they and go to talk to companies are of the sort that conventional investment fund managers feel uncomfortable asking. They are seen as not serious, too low in priority or not of the type that one should put to corporate directors in the precious one hour of meeting time available.

'By asking questions such as how much waste does the company produce and what does its waste cost, once you have been talking to these companies for a while you can work out who the efficient operators are'.

Some RI fund managers had used research on waste to draw a conclusion about a significant and imminent increase in landfill prices for waste. This was married to an evaluation of the quantity and type of waste that companies produced as well as their profit margins. An investment strategy was then executed that involved selling firms that had narrow profit margins and produced large quantities of waste and investing more in companies with sizeable waste management businesses. One such company was Viridor. For a long time analysts had assigned a very low valuation to Viridor. Viridor is the waste management and renewable energy businesses of Pennon PLC. Investing more in Pennon and other companies with major waste management businesses in anticipation of an increase in landfill prices that conventional investors had overlooked had been a good source of extra performance.

Chapter 4: Communication with Corporate Directors

So important was directly communicating with corporate directors that it is the subject of this chapter. Fund managers used the terms communication, interaction, dialogue, conversation and engagement to describe this process of communicating with corporate directors. This chapter will use the term communication.

Fund managers gave six reasons for communicating with corporate directors from the viewpoint of RI. These were information for investment, influence, relationship building, consultancy, corporate reporting and public policy. Each of these is developed further below.

1. Information for Investment

Communicating with corporate directors was the principal source of information for investment. Better information for investment meant a competitive advantage relative to other investors that fund managers could exploit through trading securities. Most of all, information for investment was provided during one-to-one meetings with corporate directors. The objective of the meetings was to obtain information to support the trading of securities and improve the financial return of the portfolio.

Stapledon (1996), Gaved (1997), Barker (1998), Marston (1998), Holland (1998a, 1998b, 2001, 2005, 2006) and Holland and Doran (1998) provide theory and evidence that meetings with company directors are a key channel by which fund managers become better informed. During one-to-one meetings the activity of uncovering new facts, filling knowledge gaps and developing a fuller understanding of each company led to information being acquired that was not in the public domain.

Each piece of information obtained was rarely price sensitive. Rather, it was information that had not been publicly printed or spoken about mostly because there is a limit on the amount of information that realistically can be.

'We meet with companies to acquire more information. This is fundamental to research and our research is all about fundamentals. We are trying to generate an informational advantage that we can exploit for our clients. Dialogue is a terrific way, yet another way to generate that advantage over your competitors'.

'The main purpose of meetings is information. We need to understand the views of management, their direction, how they plan to take the business forward. The issues we seek are long term, often 5-10 years. We want to come away feeling that we know something about the stock that the market does not know. That is not to say that we have inside information, it just means that we have proprietary information that we are using to our advantage'.

There is so much information and insight you get from direct dialogue. It is so valuable to keep that in house to build your own team's expertise and to trade ahead of your competitors'.

From the viewpoint of standard setters, behind-the-scenes meetings between fund managers and corporate directors are perfectly acceptable. Knowing more about individual firms means that fund managers will initiate trades, which contributes to more accurate security price formation, which improves the allocative efficiency of markets that is supportive for economic growth and development. The RI information obtained by fund managers when communicating with corporate directors was intentionally not price sensitive⁶.

⁶ The fund managers said that all parties were aware of what could and could not be said due to price sensitivity and materiality rules set by the FSA (FSA, 2007a, FSA, 2007b, FSA, 2008a, FSA, 2008b, FSA, 2008c).

‘When a chairman says ‘between you and me’ does that make you an insider? The legal advice we have received is that it doesn’t. In many meetings you get hints that things are changing and often receive information that could be price sensitive if it wasn’t for the fact that markets to some degree already suspect and have anticipated most of the information received. I have never been in the situation where I have been told ‘we are doing this, and by the way, you now can’t talk about it to anybody’. I have never been made an insider without being warned that I am about to be by the company itself.’

‘I don’t think we are dealing with the sort of information that would make us insiders. Most of the issues we are discussing with companies are long term issues. They are management issues, they are indicators of good management, they are indicators of the way the strategy will go.’

‘As a shareholder you want to bail out before the market figures out what you know or a firm announces it to the market. I’m not saying all extra-financial information is material, but some of it is at the margin. For example, information on how house builders manage waste may not move the share price but it could over time tell you how good they are at being efficient. If you figure that the firm is less efficient than the market figures that is material to you. It gives you a trading advantage’.

‘It is more generally at a corporate governance level where there is more risk of companies asking if we wanted to be taken inside or not. That obviously limits our trading. RI is the same as financial information in that there is a limit to how deep you can drill without picking up price sensitive information. Normally if you are speaking to a company they will say “we can tell you this but it will make you insiders”. They have a duty to warn you’.

2. Influence

Communication with corporate directors was also an opportunity to seek influence and to work with companies to help create change where it would benefit shareholders.

‘The direct communication process starts with change; this is its primary purpose. We aim to be informed and thorough in our due diligence – so that dialogue reflects companies’ individual circumstances and can make a difference’.

‘We aim to be persuasive and pragmatic in dialogue so that we achieve change that enhances the bottom line, rather than imposing prescriptive demands on companies’.

A fund manager has to have first of all developed sufficient understanding of a company in order to have a meaningful dialogue with corporate directors about the company’s performance. Fund management firms that allocated low resources to researching company fundamentals often had difficulty doing so. Corporate directors were quick to ascertain an uninformed fund manager and meaningful dialogue and influence was then foreclosed.

For the informed fund manager, the process of seeking influence would next involve using meetings with corporate directors to identify and agree on areas of potential or actual corporate underperformance. For example, a firm may be slow to adapt to new opportunities and risks, or its product proposition or service delivery may be less than optimal. The understanding and mutual respect necessary to get to this point of focus was not to be underestimated. The fund managers would then aim to exert influence. The aim was to be firm and persistent in dialogue in order to advance and protect shareholders interests and the ongoing success of the company. Some fund managers found that a willingness to listen only came about when a firm was underperforming. Others found that influence tends to only work with firms in which there is a willingness to listen to a minority shareholder and there exists a culture in which these ideas can be properly voiced and considered. Also relevant was the need for a corporation’s institutional framework to be

organised such that it allowed a minority share owner to act as a catalyst for influence and change.

'A lot of our meetings are about why a company is not as highly valued as we think it can be and what management can do to change that. With management we identify specific factors which are responsible for the discount in the company's share price and the actions that are likely to remedy the situation. If there is a particular issue that has not been dealt with then you will have a series of meetings to seek change. You want to make sure that the changes the company consider are the most appropriate ones'.

'We follow an agency theory framework. 100% of our private dialogue is for change. Behind the theory lie informational asymmetries. We are the owners, if we were also the operators there would not be a disconnect, but we are not and there are'.

Fund managers recognised that as a result of attempts to exert influence and change a more formal relationship was formed with corporate directors in which they would not be as forthcoming with information for investment that was integral for trading securities. Due to this, fund managers desiring information for investment tended to give low priority to influence.

3. Relationship building

Most of the fund managers believed that building and maintaining the right relationship was key to being able to convert communication with corporate directors into successful outcomes. Relationship building meant getting to know the key people within each firm, so that you know who to go to when something more is needed. This included getting to know the names of managers at lower than board level so that direct contact could be made to obtain more operational RI information when needed.

'Maintaining the relationship is very important. We have conversations all the time to maintain relationships. We do it to monitor, to put specific issues to companies that we feel are material, and we do it so that when there is a problem its not the first time we've met, its just part of an ongoing communication process'.

The fund managers that prioritised obtaining information for investment in their communication with corporate directors mostly sought a closer relationship with corporate directors in the belief that this would lead to better quality information and competitive position relative to other fund managers. They were highly reluctant to raise issues with corporate directors that might be considered awkward or controversial. There was a belief that doing so would close the door on obtaining the RI information they need to gain the competitive advantage they desire in trading securities.

'We don't tend to do a lot of debating with companies, we do not sponsor resolutions and we are very careful about aligning ourselves with collaborative engagement'.

'We seriously consider actions that may interfere with the building of good relationships with management; it would send a signal that we do not wish to encourage. It goes back to the importance of building the right relationships with management'.

'Investment emphasis relies on close contact with companies. We always want to ensure that our relations with firms are good in order to obtain the research we need'.

In contrast, the fund managers with an influence approach to RI said that they needed to be more persuasive and influential in dialogue. This stems from a belief that corporate directors are more likely to act if fund managers approach issues with firmness and persistency. The fund managers recognised that corporate directors will, as a result, be less forthcoming with RI information useful for trading securities. This was not an issue because

trading securities was not the primary way that an influence approach to RI sought financial performance.

'At every stock review we do we look to find companies that we really like but that have problems in which we think we can find a way of getting that value out. We then have a series of meetings to seek change. Often it is about maintaining contact. You want to make sure that the changes the company considers are the most appropriate ones. We constantly communicate, and we constantly monitor specific issues about companies that we feel are material. There is no expectation of amiable relations with corporate management, but we expect appropriate consideration of our views'.

4. Corporate Reporting and Disclosure

Prior to company meetings a small number of fund managers looked to develop an opinion about whether a firm's approach to corporate reporting and disclosure was harming its market value. If so, they would communicate with the corporate directors to suggest that the company address this. This usually involved a need for further clarification or more visibility about an issue or area of the business. If the particular company did not resolve the disclosure issue satisfactorily or if the disclosure itself heightened concern the fund managers might threaten to divest. The small group of fund managers who talked about this form of communication with corporate directors tended to be managers of ethical investment funds.

'Often we tell the company our own views on its policy. Based on that the company might say: "actually we have done a really bad job of explaining how this works", and then they might make a public disclosure. We encourage them to do that'.

'We often encourage firms to improve disclosure where this would help alleviate a significant market uncertainty. If company silence is damaging they may be encouraged to disseminate RI information'.

In contrast to this view held by a few fund managers, the vast majority believed that disclosure was a matter for the company.

'We don't push companies to release information. Most of the issues we discuss are about long term strategies, they are not immediately material or sensitive. It's up to them to draw the line on what is commercially sensitive and not valuable to disclosure'.

'It is completely up to the companies, we never tell them what they should or should not do. You have to respect that they should know where they should make a public disclosure'.

5. Public Policy

A further small number of fund managers communicated with corporate directors to encourage them and their corporate boards to work with standard setters and regulators in order to raise standards in accounting, remuneration, corporate governance, as well as working for better securities markets. The aim was to bring about a positive influence on all share holdings because it is most often the case that a large proportion of shareholders in any one firm will also be shareholders of many other companies throughout the world. Due to this, shareholders of firms had financial interests that went beyond those of any single firm, industry or even country. By taking an interest in the investments of an entire fund, the fund managers hoped that corporate boards would support them in encouraging public policy where it is in shareholders' broad financial interests.

'Our interest has moved on towards mega themes. We have really been trying to take a step back and ask "what are the different issues which affect all of our funds over the long term?" It is a lack of information in markets, it is poor governance structures, it is valuation. We want to talk to the organisations in these areas both here and

elsewhere and we want the firm in which we are share owners to support our efforts to improve markets’.

‘There is a whole other area about engaging with policy makers for better markets and better public policy for business, society and the environment. We need to distinguish engagement by a fund manager who is motivated only to make a better trading decision from our engagement which means talking to companies and standard setters to get a change of some kind. What fund managers do for the purposes of trading is not what we call engagement’.

This view that the interests of a large, modern institutional owner are very broad because investments are spread around the world is developed further in the next chapter.

6. Consultancy

Different to the other communications aims described above was consultancy. This was different because it involved corporate directors requesting a fund manager they knew was an expert in a particular area to advise them on how the firm should move forward. For those fund managers that corporate directors looked to for help it was a chance to learn a great deal more and to come to a more enlightened view than could have been acquired via others forms of communication with the firm. It often meant becoming an insider. The fund managers were not concerned about this for they were long term holders of the firm’s securities.

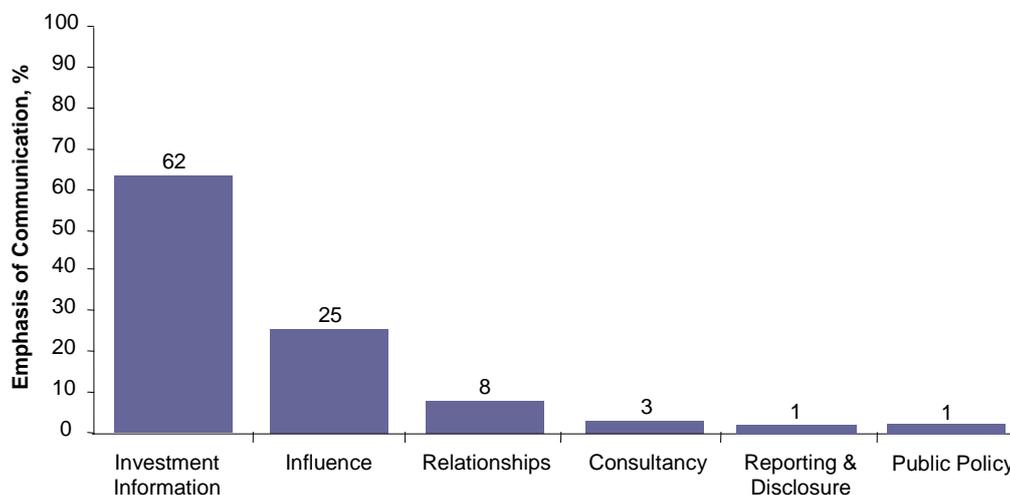
‘The process gets interesting when it is a form of consultancy on where the company is going or ought to go. Our focus is only on environmental issues and we do not undertake activism on any issue at all. Companies know us for this and trust us. Several have asked us for advice and strategic input on environmental issues within their business strategy. We get taken inside and are happy to stay there whilst questions relevant to that business are solved’.

This meant something more than the not so unusual situation in which corporate directors might use a one-to-one meeting to warm a major shareholder of the latest strategic thinking or to develop an understanding of potential market reaction to different business scenarios.

Importance of the Reasons for Communicating with Corporate Directors

The fund managers gave estimates for the emphasis they attached to the six reasons for communicating with corporate directors. Because there may be more than one reason for a single communication, the fund managers were asked to estimate the emphasis placed on each of the 6 reasons for communicating as a proportion of 100. The results are presented in the chart below, and sorted by order of importance.

Reasons for Communicating with Corporate Directors as Revealed by RI Fund Managers



	Investment Information	Influence	Relationships	Consultancy	Reporting and Disclosure	Public Policy
Average, %	62	25	8	3	1	1

On average, the fund managers placed more than 60% of the emphasis of communicating with corporate directors on obtaining information for investment. This emphasis was more than twice that of any other

communication aim. A significant minority of fund managers said that more than 90% of the emphasis was on information for investment. The fund managers that placed more than 90% of the communication emphasis on obtaining information for investment were active fund managers that used integrated financial analysis to support their particular investment styles. Investment styles included growth investing, best-in-class, value investing and benchmark driven.

In contrast, a small number of fund managers placed more than 90% of the emphasis of direct communication on influence and change. Some of these fund managers had an activist approach to investing. Others were fund management firms that owned and managed a specialist engagement and voting service offered to other investors.

A third group of fund managers placed roughly equal weight on investment information, influence, and relationships. They lacked a strong pull towards any one aim. These fund managers tended to have insurance company parents that sold long-term life and pension products to retail investors. The nature of these long-term insurance products did not require outperformance in the same way that fund managers offering specialist mandates did. The investment approach tended to be benchmark driven and involved holding a mixed portfolio that was neither growth nor value. Since the investment proposition of long-term products was different, so too was the emphasis on communicating with corporate directors. This was often relatively weak in its purpose, perhaps expressing polite reservations about strategy, but in effect serving no more than to remind corporate directors that shareowners have the right to meet with and monitor corporate directors should they choose to do so. Several fund managers said that life insurers did not want to harm good relationships with corporations by seeking influence and change for corporations are major buyers of pension and insurance products. The small number of life insurers that allocated relatively significant resources to RI communicated more, but the mix of aims was similar.

The communication emphasis of index fund managers had a similar mix as the life insurers. There was no great need for information for investment as this type of fund management was not based on trading securities for profit. There was also a low emphasis on influence. This came about because so few resources were devoted to researching company fundamentals yet many lines of stock were held. The business model was low cost. This meant fewer experts within analysis. Some non-index fund managers said that this led to a relatively low degree of understanding of each company and so less ability to be persuasive in dialogue with corporate directors in order to bring about influence. Some non-index fund managers also mentioned that index fund managers were myopic on influence because some of their largest clients are pension funds of corporations with whom they were said not to want to harm beneficial relationships.

Building and maintaining relationships was a reason that all fund managers met with corporate directors regardless of their approach to RI. Whilst of itself not a major emphasis it stands apart because all fund managers mentioned it. The other three reasons; consultancy, corporate disclosure and influence on public policy, were sought by very few fund managers but those that did emphasise these reasons had a very high conviction in their benefits. This was most evident in the area of public policy, an aspect that seems to have risen in prominence as a result of the financial crisis and is discussed further in chapter 6.

Chapter 5: RI Staff within Fund Management

The basis of RI fund management lay in bringing capable and skilled staff into contact with significant amounts of appropriate information. Information was the subject of chapters 3 and 4. This chapter examines RI staff within fund management firms. There are three sections within this chapter. Section 1 reports the allocation of RI staff within fund management firms. Section 2

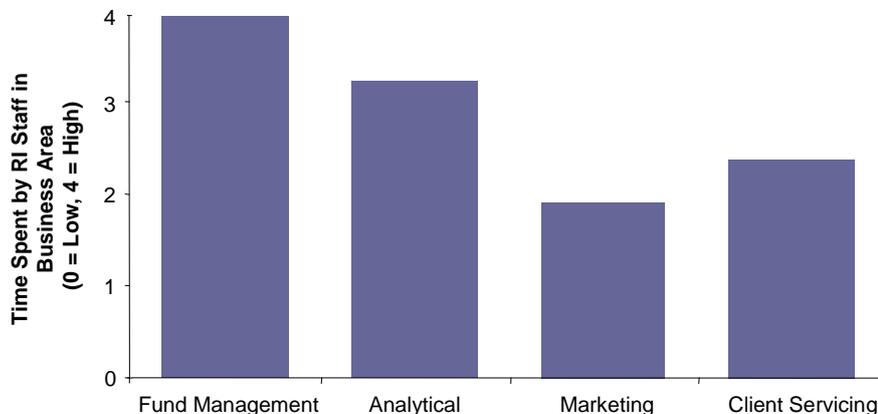
examines the number of RI staff within fund management firms. This informs on the quantity of staff brought to bear on RI. Section 3 attempts to estimate the quality of RI that results from the number of RI staff employed. It does so by reporting the relationship between the number of RI staff and the number of different lines of stock held for each fund management firm.

1. The Allocation of RI Staff within Fund Management Firms

Fund management firms employed RI staff in several areas of the business. These included fund management (portfolio construction, security selection), analysis (research, fund management support, measurement of firms against standards of corporate governance, establishment of voting decisions), marketing and client servicing.

90% of RI staff were employed for fund management and analytical positions, and 10% for marketing and client servicing positions. This gives only a partial picture however. This is because the staff roles were not rigid. When required, fund management and analytical staff would move across to support marketing and client servicing. This meant significant sharing of tasks. The allocation of RI staff by time across different areas of the business is presented in the chart below. The chart uses a five point scale, where 4 is 'high and 0 'low. The maximum possible mean score is 4 and the minimum 0.

The Allocation of RI Staff by Time to Different Areas of the Business



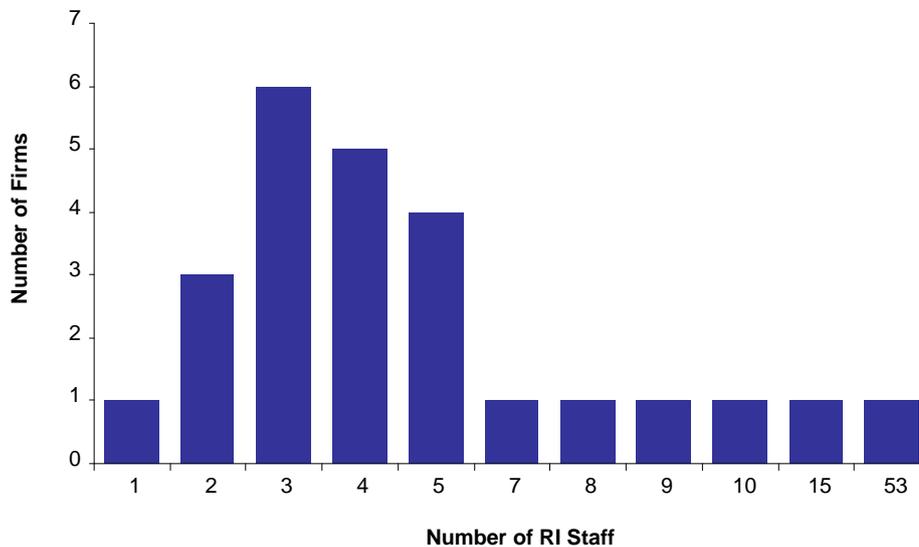
	Fund Management	Analytical	Marketing	Client Servicing
Average	4	3.2	1.9	2.4

The chart above reveals that the allocation of RI staff by time to different areas of the business is much more evenly spread than the allocation of RI staff by employed position. The latter revealed a split of 90% fund management and analytical, and 10% marketing and client servicing. Both marketing and client servicing are more important than this allocation suggests. Particularly notable is client servicing, which is important of itself and more so than marketing. Fund managers said that RI clients tended to prefer a high level of reporting on engagement and voting activity than conventional investment clients.

2. The Number of RI Staff within Fund Management Firms

The total number of RI staff within each fund management firm was used as an indicator of the quantity of RI staff resources. This measure relies on fund management firms self reporting their number of RI staff. The chart below reports the total number of RI staff on a full time equivalent basis within each of the sample fund management firms.

Number of RI Staff within Fund Management Firms



The number of RI staff within the sample fund management firms ranged from 1 to 53. The mean, median and modal number of RI staff for the 25 fund management firms was 6.7, 4.0 and 3.0 respectively. This means that the most frequent occurring number of staff, the modal value, was 3.

This result is similar to surveys by the United Nations Principles of Responsible Investment and the Investment Management Association (IMA, 2007b; PRI, 2007). The surveys above, like this study, report a broad measure of RI staff as self reported by the firms themselves. A significant number of fund management firms count staff employed in corporate governance and voting within their total for RI. This was based on reasoning that these areas input into RI. Other fund managers said that this overstated the significance of RI resources and was not strictly correct because corporate governance and voting need to take place regardless of any view on RI and in accordance with the Combined Code on Corporate Governance (Combined Code, 2008).

Six fund management firms hired 7 or more RI staff. Three of the 6 were life insurers. These firms managed significant long term retail funds inhouse and had a long history and significant involvement in RI. The other 3 were fund management firms whose number of RI staff was boosted due to their also owning an outsourced engagement and voting service offered to other investors such as pension funds and charities. If these 3 latter firms are removed from the sample the mean and median number of RI staff for the remaining 22 fund management firms are both 4. If all 6 firms that employ 7 or more RI staff are removed from the sample, the mean and median number of RI staff for the remaining 19 fund management firms are both 3.

'There is myself and two others on ESG issues; we are specifically dealing with all ESG issues. Clearly there are separate fund management issues, you need someone to run that and you need to collect the data. It's bringing together information and reporting back to clients'.

'Three staff cover voting, corporate governance, analysis and advice to fund managers. This limits what we can drill down to but it works for clients'.

'We have a team of 4 people on responsible investment. It costs money to run 4 people and to attend meetings, buy research and allocate 5% of our research budget and that's just on enhanced analytics. We also get voting research; we buy-in specific RI sources'.

The fund management firms with greater numbers of RI staff tended to use their extra resource to perform inhouse research on issues, themes, sectors and industries. This included specific work on tax, legislation and regulation, climate change, people's access to fresh water, labour standards, renewable energy, technology, changes to sustainable consumption patterns, health, immigration, global pandemics, obesity, security of supply of inputs for production, resource scarcity and potential defaults in bank lending due to sustainability.

'By focusing on sectors and themes you really get to understand the players, their role, the technology, and the conflicts. We find a lot of early stage trends in technology this way, you pick up quite a lot of those sorts of things that you would not by looking at each company in isolation'.

The fund management firms with fewer RI staff tended to rely on buying in information. Buying in information was cheaper than hiring RI staff. The fund managers reported that on average 85% of the total cost of providing RI was staff and 15% was information. One reason that information was so much cheaper is because clients directly pay a major proportion of it. On average, four-fifths of the total cost of information was directly paid by the client in the form of commission allocation and one-fifth by the fund management firm. Of the one-fifth that the fund management firm pays, this may later be passed on to the client via the fund management fee or alternatively absorbed by the firm within its financial statements.

It is conventional practice to use client money to directly pay for information via a commission allocation system. When trading securities, fund management firms allocate an extra commission for research above the commission payable to only execute trades on behalf of clients. In effect, one commission is paid for trade execution services and one commission is paid for information and research services. The commission for information and research accrues in a specific research allocation account. The accrued amounts are periodically paid across to research providers that have contributed the best information. Separate payments for trade execution and information should lead to a better quality of fund management service. When they were combined, as was the case prior to 2006, investors often paid a higher trade execution cost in order to access good research⁷. Research commission is a client cost not included in the fund management charge. Both

⁷ In 2006, The FSA introduced regulations that formally unbundled trading and information related parts to commission. In the UK fund managers must now disclose to their clients how much they are paying for execution services and research services.

active and passive managers purchased information and research using client money in this way.

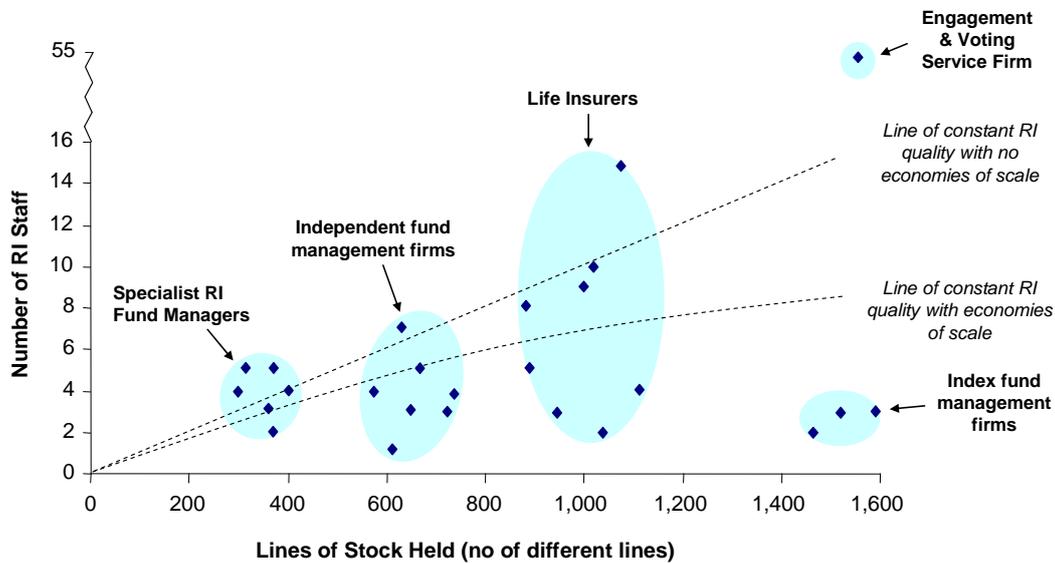
3. Relationship between the Number of RI staff and the Number of Lines of Stock Held by Fund Management Firms

An attempt to estimate the quality of RI that is undertaken was performed by comparing the number of RI staff to the number of lines of stock held per fund management firm.

This measure is based on reasoning that the more lines of stock a fund management firm holds, the greater will be the scale of RI tasks that need to be performed. This happens because attached to each line of stock or security is a unique set of investor rights, corporate actions and considerations. As more lines of stock are held, more RI staff are needed if the quality of RI is to be maintained.

The relationship between the number of RI staff and the number of lines of stock held by fund management firms is reported in the chart below. The lines of stock held by each fund management firm were obtained from Thomson Financial.

The Number of RI Staff and Number of Lines of Stock Held by Fund Management Firms



In the chart above two dotted lines originate from the origin and slope up and to the right. The upper dotted line refers to a situation in which RI has no economies of scale and a member of staff is able to acquire and maintain good knowledge of 100 lines of stock. The line plots 1 RI staff for every 100 lines of stock held. The choice of 1 member of RI staff for each 100 lines of stock was based on a judgement following the interviews. Admittedly there is an arbitrary element to this number but even if it were 75, 125 or any other number the effect would be the same.

The lower dotted line that is curved refers to a situation in which there are economies of scale and each new member of RI staff is able to acquire and maintain good knowledge of the same number of lines of stock as the previous member of staff, plus 10% more. Economies of scale are 10%.

Whichever line is the focus for comparison, specialist RI fund management firms as a group offer the highest quality RI. This is because more of the firms are above the dotted lines. Index fund management firms offer the lowest quality RI since they are the greatest distance below the lines. Active fund

management firms offer higher quality RI than index fund management firms. It is notable that whilst a small number of life insurers are sometimes held out as exemplars of high quality RI, they tend not to appear so high quality when scaled for the lines of stock they hold.

The very highest quality RI using the measurement system above was a fund management firm that also owned and managed an engagement and voting service. It had in excess of 50 full time equivalent staff. In order to bring this firm onto the chart above the vertical axis has been significantly compressed above 16 staff.

The lowest quality RI using the measurement system above was an index fund management firm that more than any other undertook factor matching, or optimisation, as an indexation technique. The practical reality according to one fund manager was that very last thing this fund management firm wanted to do was to influence firms within the portfolio. Doing so risked changing their characteristics. This might change their nature, which in an optimised portfolio based on an index is exactly the opposite of what is desirable. This is because changing stock characteristics held in an optimised portfolio increases tracking error. This will mean more rebalancing than would have otherwise been the case, an increase in costs and a loss of clients. Other indexation techniques such as stratified sampling or duplication did not suffer this fundamental conflict between portfolio construction technique and the bringing about influence and change in firms where appropriate to do so.

A final notable finding was that of no statistical significance between the number of RI staff and the number of lines of stock held. The expectation was that RI staff would increase with increases in the number of lines of stock held. If it did, this would lead to a positive correlation. For the full 25 fund management firm sample, the correlation coefficient was 0.39. Removing the 3 fund management firms that offered an outsourced engagement and voting service to other investors, the correlation between RI staff and lines of stock for the remaining 22 fund management firms was -0.09. The absence of a positive economic relationship between RI staff and lines of stock held for

these 22 fund management firms was a notable result. The negative relationship was due to the presence of index fund management firms.

Chapter 6: How RI Achieves Financial Performance

Bringing RI staff (Chapter 5) into contact with RI information (Chapters 3 and 4) led to financial performance in 3 ways.

One was via a financial dividend attached to the more responsible firm. This required identifying more responsible firms and investing in them at the right time and at the right price. This type of performance was the most frequently sought.

A second was via influence at the level of the firm. This required fund managers and corporate directors working together to evolve a firm that strikes the right balance between risk and reward that is in the best interests of long term shareholders. This might mean trying to increase a quantity variable such as profits, but alternatively it might mean influencing a quality variable such as how profits are generated or how repeatable and durable profits and the profit generating model are.

The third was via influence at the level of public policy. This required anticipating major RI related shifts and events in advance of them coming through. This might mean influencing public policy to help the whole portfolio perform. In other situations the purpose of influence might be tangential to immediate improvements in performance. This might mean encouraging the creation of new international institutions for the improvement of leadership in this area, or to evolve and develop compacts of existing global institutions with a willingness to act. The aim is to create institutions and frameworks so that influence can be applied for the improvement of markets and therefore, ultimately, performance.

There are three sections to this chapter. Each investigates one of the 3 ways in which RI becomes financial performance. Section 1 reports on the dividend attached to the more responsible firm. Section 2 describes performance as a result of influence based on firms. Section 3 describes performance as a result of influence based on public policy

1. A Dividend Attached to the More Responsible Firm

A significant empirical academic literature developed over the last thirty years is generally supportive of the existence of a financial dividend attached to the more responsible firm. Companies that discharge their performance in a responsible way are more likely to flourish financially. Furthermore, a firm that anticipates and responds early to the changing nature of what it means to be responsible may be lower risk. This overall result is not without contradictory findings. Findings, both supporting and contradicting, are organised in Appendix 2.

It should be borne in mind that the existence of a dividend does not necessarily mean it is available at the level of the portfolio once the fund management costs to find it and trade on the basis of it are taken into account. This is the subject of Chapter 7 on valuation, charges and costs.

2. Financial Performance from Influence Based on Firms

The aim of influence based on firms was for fund managers and corporate directors to together evolve a firm that strikes the right balance between risk and reward given the expected trajectory of the firm and industry. Avoidance of certain risks, appetite for other risks, and awareness of future opportunities would over time lead a company to superior long-term performance.

Responding early to potential risks might mean a firm does not confront an eventuality that it otherwise would. In other cases a potential risk may

materialise but impact in a more benign way than it would have. For example, a company may have reduced the amount of waste going to landfill prior to a rise in landfill prices, or switched to low carbon sources of power prior to a rise in the price of carbon. Performance is improved through there being a smoother future path for the business.

‘A lot of our engagement is driven by government policy closing down market opportunities for companies in dirty market sectors and switching resources towards new areas. We see that as a continuing theme and basis for discussion with companies operating in these markets. If companies don’t address these issues and opportunities presented to them across all sectors they are going to find themselves lagging behind their competition’.

‘As sustainable development problems get more acute, the scale of the government response to them will step up. The challenge for us is to work with firms to stay ahead of policy makers and government actions so that our investments are winners, not losers’.

A number of fund managers said that financial performance from engagement based on firms was often difficult to measure statistically. This is because there was no yardstick for what the future trajectory of the firm would have been in the absence of RI engagement. Also, companies respond to so many drivers and stakeholders. It was often not possible to attribute influence from fund managers to subsequent actions and performance from companies. Even a seemingly successful outcome for a fund manager may in fact be due to many influences all working in the same direction at the same time, only one of which was the fund manager. It always took a leap of faith for a fund manager to attribute this change to its own work. In the end, the activity of influence requires a belief that a major investor can be sufficiently well informed and persuasive in its dialogue to make a positive difference to performance.

Activism

A more focused form of influence was activism. This meant identifying companies which were not economically performing to their potential. Poor performance could have its origins in the portfolio firm's financial structure, governance and management, operations, strategy, product proposition, service delivery, or its slow adaptation to new opportunities and risks. An RI issue might feed into this process where it was material to economic underperformance at that particular time. Concentrated investments in underperforming firms are taken. Influence and change was sought through persistent dialogue and, if necessary, more formal sanctions such as the threat of removal of one or more directors. Once the market reflects the improvements in performance and the greater potential for performance, the holding would be sold. The value added to the portfolio is then appraised in absolute percentage terms as well as relative to a yardstick such as an index of shares. A small number of fund management firms undertook activism to some degree.

'Our strategy is to buy and hold operationally riskier firms and employ our influence to bring down the level of risk, improve performance, and so increase valuation. In doing so we focus on firms below certain quantitative and qualitative thresholds. Actively engaging in this sense means getting involved in underperforming companies and working with their boards to bring about change that will lead to superior long-term performance by the company.'

There is mixed evidence on the value and performance of activism. Smith (1996) finds that activism that leads to successful changes in governance is associated with greater subsequent stock returns. Strickland, Wiles and Zenner (1996), Barber (2006) and Nesbit (1994) find a positive association between active monitoring by shareholders and improvements in corporate performance. Gillan and Starks (1999) and Bhagat, Black and Blair (2004) report mixed evidence on corporate governance induced restructuring and stock market returns. In a survey of studies, Karpoff (2001) finds that

shareholder activism can produce small changes in target firms' governance structures but negligible changes to share values and earnings⁸. Different to the US results above, Becht, Franks, Mayer and Rossi (2008) examine UK shareholder activism and find abnormal returns associated with engagements, as well as success in bringing about corporate restructuring. International results can be difficult to pull together because the term activism tends to mean different things in different countries.

3. Financial Performance from Influence Based on Public Policy

The aim of influence based on public policy was to anticipate major RI related shifts and events in advance of them coming through. Where these might harm the value of some or all of the portfolio holdings the aim was to involve regulators, standard setters, governments, supra-national organisations and industry trade associations in order to promote recognition of issues, build a consensus on the need for action, and to execute action in time to mitigate impacts or prevent their occurrence. Few fund managers mentioned this type of performance but those that did had a high conviction in its benefits.

The aim of responding early to perceived risks was based on the belief that markets would subsequently take a smoother path than they otherwise would have done in the absence of intervention. This is because either the risks do not materialise or do so in a more minor way. Responding early to perceived risks might mean that markets globally, and therefore all of a fund manager's or client's investments, do not confront an eventuality that they otherwise would.

⁸ This research often adopts an event study methodology because the prices at which fund managers bought and sold the shares of target firms are not observable.

Examples of Influence Based on Public Policy

An example is depletion of the earth's natural capital. This involved concerns that the global economy's use of resources exceeds the earth's biophysical limits. It was better to direct concern about depletion of the earth's natural capital to standard setters, governments and supra national organisations because there is little that RI influence based on individual firms can achieve. The problem is too large scale and cross border. Worse still, fund manager influence aimed at supporting activities within individual companies to boost earnings may ultimately leave all worse off if this comes at the cost of growing economic externalities. Here, engaging on public policy involved working with the Intergovernmental Panel on Climate Change as well as supporting organisations such as the Carbon Disclosure Project, Carbon Trust and Global Reporting Initiative that act for the measurement and disclosure of carbon by all corporations.

A second example is pension fund led dialogue with the pharmaceutical industry. This involved discussion with the main firms in the pharmaceutical industry about their operating and revenue model pricing and R&D, changes in societal expectations, growth in importance of the 'emerging markets', and how the pharmaceutical industry communicates and interacts with consumers in the marketplace. The aim was to influence the whole industry in order that long term shareholders can remain supportive of it.

There were also attempts to influence public policy around more standard areas of investment management, including corporate governance, company law, investor protection, excessive executive remuneration, tax, legislation and changes in accounting standards and disclosure.

More Examples of Influence Based on Public Policy

For example, in 2007 several large pension schemes communicated with the European Commission to oppose abolition of the 2nd Company Law

Directive: Simplification of Capital Maintenance Rules. This was because it proposed a repeal of shareholder pre-emption rights (which serve as a mechanism to protect the shareholdings of existing investors from becoming too diluted when a new issue of shares is made) that might harm the position of investors in pension and savings vehicles who are long term holders of shares.

Also in 2007, one large pension scheme communicated with US companies to encourage the adoption of an advisory shareholder vote on executive compensation. An advisory shareholder vote on executive compensation was said to be beneficial for all parties because it gave all shareholders a voice, provided the board with input on how the market evaluates executive compensation decisions, gave shareholders an alternative to voting against director candidates in order to address compensation practices, and had a positive impact on alignment of management interests with long term shareholders.

Fund managers mentioned difficulties of statistically demonstrating performance. There was no obvious way of knowing when this form of influence was working, and by how much it had influenced outcomes that would have prevailed but that now would not. Fund managers that undertook this form of influence had an interest in their client's whole financial situation as well as believed that this approach could make a difference.

Another drawback was the lack of international organisations to approach. Many attempts to influence public policy transcend national borders, for example climate change, executive compensation and accounting standards. Approaching a single national regulator did not have much meaning and stood to achieve little. This type of influence meant more when there existed international institutions that had powers to put pressure on national regulators to move for the betterment of investors globally. Influence here might mean encouraging the creation of new international institutions for the

improvement of leadership in this area, or to evolve and develop compacts of existing global institutions with a willingness to act. The aim is to create institutions and frameworks so that influence can be applied for the improvement of markets and therefore, ultimately, performance.

Chapter 7: Limitations on Performance Due to Valuations, Charges and Costs

The previous chapter identified the existence of a financial performance dividend attached to more responsible firms as well as benefits due to forms of influence. This does not necessarily translate to better portfolio performance because there may be higher valuations, charges and costs to pay that are specific to RI. These will erode the benefits previously identified.

1. Valuations

In a competitive market in which information is well dispersed, knowledge of a performance dividend to more responsible firms will sow the seeds of its own destruction. An investor who holds shares in a more responsible firm will require a higher price to sell to another investor because the additional dividend makes the firm worth more. Security prices will adjust. If the valuations of more responsible firms have been bid up, some of the performance dividend attached to more responsible firms is no longer available. An RI fund manager that has bought into the investment at a higher price will find it that much harder to subsequently outperform.

Most fund managers believed that this is not the way that markets operate. The market is poor at projecting the future. Due to this the market discounts the worth of future projects and scenarios into today's terms at too high a rate. This is especially the case with RI because so many of the issues are long term. Having discounted at too high a rate, the market in today's terms

attaches too low a value to RI. The financial dividend attached to more responsible firms remains available. In other situations the market treats future RI events as improbable rather than probable and so attributes no value to them. This gives fund managers an opportunity to capture the performance dividend that comes with researching RI fundamentals. The concept of valuation was seen as not relevant to an approach based on influence due to the way that influence delivers its benefits. Overall, the fund managers strongly believed that more responsible firms did not yet trade on higher valuations. This meant that the dividend was available to those that researched it.

2. Charges

Time and resources are needed to persistently identify more responsible companies. Valuation skills need to be applied so that the securities of more responsible companies can be bought and sold at the right time and at the right price. Appraisal skills must be brought to bear to ensure the securities selected fit with the investment mandate, diversify the portfolio when bought in combination with other securities and are available in sufficient quantity and at low cost. Expert and specialist analysts that are separate to the fund managers may then discharge influence based on RI. In all, this comes through as an additional cost. According to one fund manager:

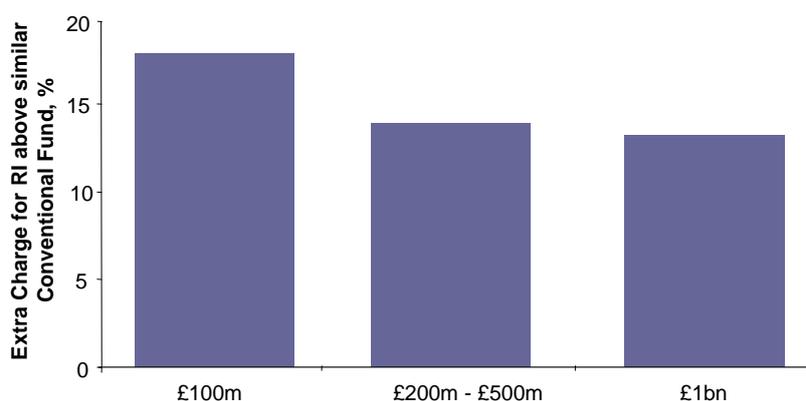
‘There are extra costs I think you need for decent RI or integration. There are the analysts who’ve got that expertise which isn’t part of a CFA or IMC qualification. There are different research sources and contracts you need to pay for. For governance and engagement services there will be an increase in the fees for that. All in all I think to do this properly I would say you are talking half a million pounds’.

The costs of administering RI are either charged to the client or absorbed by the fund management firm and carried in its financial statements. A number of studies report on the costs of RI. A majority reveal the existence of a higher fund management charge. Geczy, Stambaugh and Levin (2003) find that

average total expense ratios (TERs) of RI funds are 24% higher than those of conventional funds. Bauer, Koedijk and Otten (2004) find that average TERs of German RI mutual funds are 35% higher than conventional mutual funds, those of UK RI funds are between 4% to 12% more, and US RI funds 6% more. In contrast, Statman (2000) finds that average total expense ratios of US RI mutual funds are 4% lower than that of conventional US mutual funds.

The fund managers reported how much RI adds to the fund management charge of a conventional fund according to different placement sizes. The results are presented below.

Additional RI Fund Management Charge for Different Placement Sizes

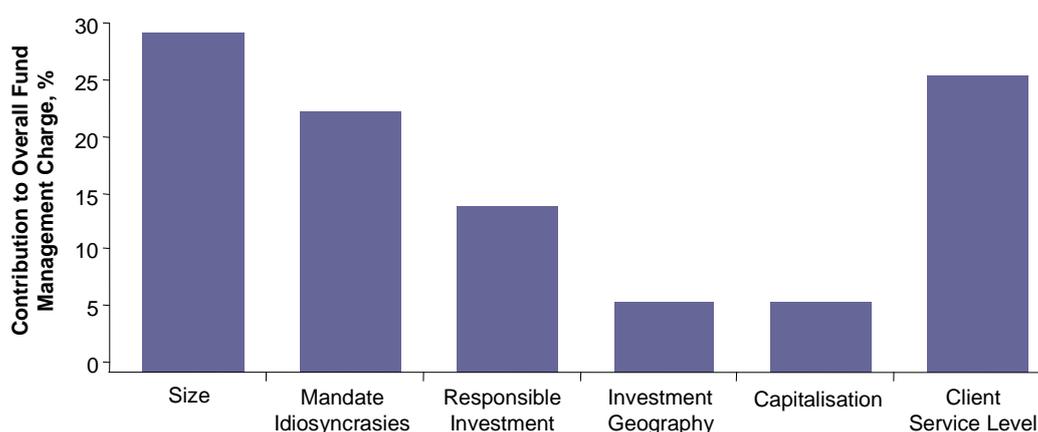


	£100m	200m - £500m	£1bn
Average, %	18	14	13

On average, RI adds 18% to the fund management fee for a £100m mandate, 14% to a £200-£500m mandate and 13% to a £1bn mandate. Although a higher charge will serve to erode the performance dividend attached to more responsible firms, the fund managers emphasised that these charges for RI should be put in context. This is because RI is not the most important driver of

the overall fund management charge. The contribution of components to the overall fund management charge is presented in the chart below.

Contribution of Different Components to the Fund Management Charge



	Size	Mandate Idiosyncrasies	Responsible Investment	Investment Geography	Capitalisation	Client Service Level
Average, %	29	22	14	5	5	25

On average, the placement size of the fund contributes 29% of the total fund management fee, mandate idiosyncrasies 22% (for example, portfolio allocation limits on single stocks, industries, cash, depositary receipts and off-index and off-exchange positions), RI 14%, investment geography 5% (for example UK, emerging markets, North America), capitalisation 5% (for example large capitalisation, small capitalisation) and client service level 25%⁹.

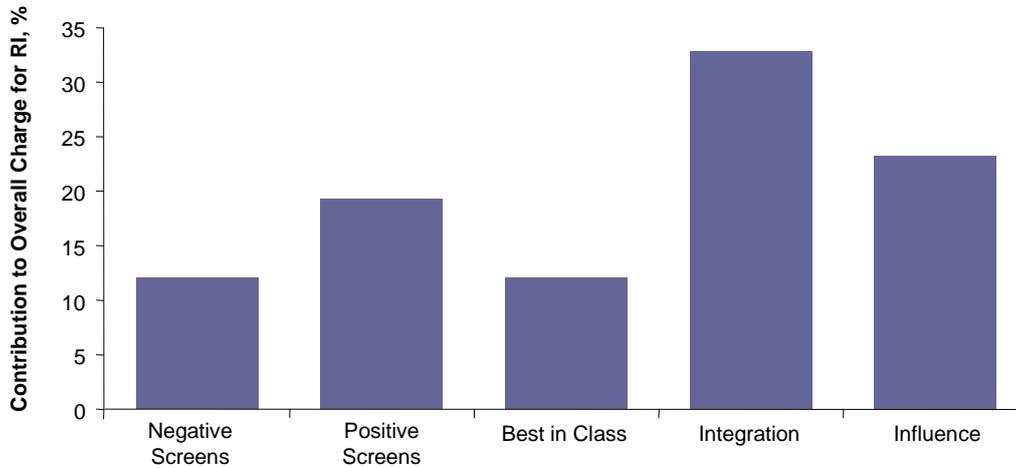
One point of emphasis was client service level. The fund managers said that this could take a low or high value depending on what feedback and reporting the client requires of the fund manager. In particular, when RI was written into

⁹ It is notable that investment geography and capitalisation make relatively little overall difference to the fund management fee. This means that a global small cap RI fund would not cost significantly more than a domestic large cap RI fund with similar size, client service level and mandate characteristics. This would suggest that international diversification and the potential for small cap fund performance are relatively inexpensive to acquire.

the investment mandate fund managers tended to raise the charge for client servicing. This is because not to properly document and communicate how RI had been discharged, including its impact, might then be used to construct an argument for underperformance which was a reason for manager dismissal or negotiation of a reduction or payback of fees. In order to be credible, reporting and communication had to be delivered by those who worked the area, which was the fund managers and analysts whose time is costly. Writing RI into the investment mandate therefore led to a more formal RI reporting environment. When RI was not written into the investment mandate, the reporting environment was less crucial and the charge for client servicing correspondingly lower.

A second point of emphasis was the charge for RI. The average was 14%, but the values (not reported in the chart above) ranged from 5% to 22% of the overall fund management fee. An example of a low charge RI fund is one that uses negative screens only. An example of a high charge RI fund is one that uses integration, RI influence and negative screens. Fund managers reporting close to 14% might combine integration with negative screens, influence with activism, best-in-class with negative screens or some integration and some influence. The fund managers gave estimates for the contribution of different types of RI to the overall charge for a RI within the fund management fee. The results are presented in the chart below.

Contribution to the Overall Charge for Administering RI



	Negative Screens	Positive Screens	Best in Class	Integration	Influence
Average, %	12.5	19	12.5	33	23

The most important determinant of the RI charge was integration. Integration was the most expensive to perform. The second most expensive type of RI to perform was influence. The least expensive to undertake was negative screens. In order to arrive at the total RI charge a fund management firm would combine the charges for the different types of RI required.

‘Cost depends on the strategy. A negatively screened fund would be about 5 to 10 thousand pounds per screen. If you wanted several negative screens then the most efficient way to do that after a certain point would be to buy the screened data from a research company such as EIRIS. The starting figure would be something like £30,000 but the charge is on a funds under management basis. If you want to buy our standard RI service you’re looking at 100 grand upwards charged on a funds under management basis’.

2.1. No Extra Charge

A small number of fund management firms did not charge for RI. Instead the cost was absorbed by the fund management firm and carried in its financial statements. Due to the fund management firm bearing the cost, the amount spent on RI tended to be low. The approach of not charging was said to work well for those clients focused on keeping fund management charges low whilst requiring some RI activity. It also worked well for clients that wanted to separate out RI influence and outsource the function to a specialist third party.

Passive (index) managers tended not to charge more for RI. Active fund management firms that did not charge tended to focus on integration. This is because integration was thought the most likely to benefit financial performance within the time frame most clients were interested in. One reason given by an active fund management firm for not charging clients more was:

'If one includes RI on the basis that it could be material to financial performance, it becomes very difficult to ask clients to pay more for what amounts to carrying out tasks that are fundamental to discharging a basic fiduciary function for them'.

A different reason given was that if there are no charges to erode performance the client will see the financial performance and the firm will win more mandates.

3. Costs

The large majority of fund managers said that their approach to RI would have exactly the same portfolio trading costs as conventional investing. This is because portfolio turnover was driven by market conditions and the characteristics of the investment mandate. Responsible and conventional investment both led to the same trading of the portfolio because they both seek investment performance from the same underlying investment return generating process – that of buying low and selling high. There was too much

pressure on performance not to trade in a similar way to conventional portfolios.

A very small number of fund managers disagreed, and said that their approach to RI meant lower portfolio trading costs. This suggests a further performance dividend and one that is in addition to that attached to more responsible firms. The reason given was that RI involves looking ahead to the long term. Due to this, investments are held for longer and traded less often. Less portfolio trading will reduce the client's total cost. The fund managers that disagreed reported that their portfolio turnover was 20% - 25% lower than like-for-like conventional portfolios. Similar to this, Geczy, Stambaugh and Levin (2003) find that the turnover of RI funds in the US is on average less than half that of conventional funds.

Chapter 8: Five Areas of Potential Interest and Value for Buyers of RI

1. Subject Area

RI investigated risks and opportunities not covered by conventional financial analysis. Some fund managers had taken an extreme line on this and said that the aim was to draw on the widest possible range of risks and opportunities. Common remarks by fund managers in 2007 were that RI investigated '*Whatever is significant to a particular firm and industry*' and that '*The goal of lowering risk for clients defines the areas of research*'. When asked what this looked like some said that to specify it was to miss the entire point of RI.

Hindsight suggests that this was misleading. The types of risk that contributed to major world stock market declines were not once mentioned by any of the 25 fund management firms. When asked in 2007 what major risks and themes are likely to emerge over the next 5 years not one interview participant mentioned the banking industry. Each fund manager's response had a relatively narrow subject matter.

Buyers of fund management services should be mindful of claims that RI is executed over something more than its traditional subject area. In 2007 there was not the resource within most fund management firms to get close to executing on that. Clients interested in knowing more about what is performed might benefit from requesting that their fund managers give a clear articulation of what is capable and achievable within the resources available. This might helpfully include a list of major intentions for the period ahead and why these have been selected as the most prescient and in clients' best interests. If a client decides that this is not sufficient and wants more it then knows that it has to either build the capability to do that or contract separately for it.

2. Type of RI

In order to develop an understanding of how each fund management firm had organised its RI a good starting place for the buyer of RI is each fund management firm's organogram. It was a fairly reliable indicator of the type of RI being pursued. Look for the presence of a high ranking senior officer, board member or the board contracting expert advice. Look for the location of the RI team and its key people within the organisational hierarchy and how embedded or independent they are from investment committees and trading. Look for the way information and insight flows.

3. Influence

Influence based on RI was most effective when it was at arms length to regular internal investment committees that discuss the origins of the next basis points of performance and allocate financial resources accordingly.

Look for fund management firms that ring fence the activity whilst allowing information and intelligence gained to pass across to investment decision makers. Look for resources relative to lines of stock, and look for how influence objectives are set. A small number of fund management firms carve out their influence activity into a separate business. Some of these offer a significant pooling of resource and forum for collective action. Independence and shared resource were major benefits, but a downside was the absence of an effective mechanism for passing the information and intelligence gained back out of the service to the client or the client's fund managers. A further downside was their distance from security ownership. Both of these can be overcome, and a buyer of RI might want to pursue solutions.

4. Measurement

Some fund management firms did a poor job explaining their activity around influence. Improvements in this area are relevant because influence based on RI is not straightforward to measure. A standardised reporting framework for activity on influence was a long way off but buyers of RI should try to progress this with their fund managers. A reporting standard might start by including aims, motivation, justification, expected outcomes and milestones. Asking fund management firms to do this and more would help bring clarity to what the action was targeting, and why, as well as draw attention to how influence programmes work, and when.

5. Engagement

Engagement was a mixed use term. It might just as often be used in the context of seeking information for trading as interacting in order to monitor or influence. At face value, it is not at all clear what engagement is seeking, doing or achieving. Due to this, engagement is confusing by itself as a unit of explanation or observation. Buyers of RI, regulators and standard setters should all be mindful of claims that the existence of a particular level of engagement provides any evidence whatsoever that fund management groups exercise their responsibilities as owners in the spirit that the Combined

Code on Corporate Governance intends. Examples of how the meaning of engagement varied across fund management firms include:

'We distinguish our engagement from what our fund managers do to make a better decision; we don't call that engagement as it is what fund managers do. Anyone who says that is engagement is lying. Engagement means talking to a company to get a change of some kind. Many fund management groups employ the term engagement to obscure their sole purpose as traders.'

'I think it is wrong to see engagement as at all confrontational. We invest in companies that have good management. We would not be investing in the company in the first place if we did not think they were doing a good job. It is seeking influence occasionally rather than routinely.'

'We need to be clear. We are not being paid a retainer to help the firm, and we do not have a mandate to change the firm. Engagement may be several things but it is not this.'

'There are occasions where we find ourselves in a position where we do have to engage because we see that our clients are being undermined right now.'

'I am sceptical about engagement for change. There is very limited scope to change what the company actually does, why bother?'

When fund managers use the term engagement buyers of RI might want to inquire about the planned objective, process, and intended outcome of this programme of communication.

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APPENDIX 1

Research Methods

The research followed grounded theory methods. This is an empirical method that allows a researcher to adopt a broad view on a subject that is not well understood and to derive theory based upon observation (Barker, 1998).

Grounded theory methods do not detail data collection techniques. Rather, they introduce analytical procedures that help the investigator organise and reduce the already collected data to manageable research problems and proportions and to ground out new theory and frameworks through development, refinement and interrelations (Charmaz, 2000, p510). This leaves it up to researchers to collect good data and provide confidence that reliable sample selection and data collection methods have been undertaken (Charmaz, 2000; Glaser, 1992).

Sample

The investigative population was UK fund management firms that broadcast RI capability. These firms were observable because they advertised themselves through membership of the UK Social Investment Forum (UKSIF) and the Enhanced Analytics Initiative (EAI)¹⁰. The fund management firms of interest were either domiciled in the UK or domiciled overseas but with substantial fund management capability based in the UK. The focus was firms with more than £1 billion of equities under management in the UK because they were more likely to have greater RI resources. The large majority of fund management firms met this criterion.

Combining the membership lists of UKSIF and EAI, and removing fund management firms with less than £1 billion of equities under management, yielded a potential sample of 28 fund management firms. The Investment

¹⁰ The UK Social Investment Forum is the UK's principal network for sustainable and responsible financial services. The Enhanced Analytics Initiative is an asset manager forum committed to furthering RI research.

Management Association (IMA) reviewed this list for omissions. No additions or deletions were suggested.

25 the 28 fund management firms agreed to interview. Of the three that declined one was undergoing restructuring, a second said that it was wrongly associated with RI, and the third said it had recently sold its RI capability and related investment mandates to another manager. Agreement of 25 out of 28 fund management firms represented a response rate of 90%. This compares favourably with the 40% response rate of Barker (1998) and 55% response rate of Hendry, Sanderson, Barker and Roberts (2006).

As at 31 December 2006, the 25 firms managed UK£680 billion in UK equities out of an estimated total market of UK£940 billion managed by UK managers. This accounts for 73% of the entire UK fund management market in equities (IMA, 2007a). This compares favourably with the 24% of the value of UK equities of Barker (1998). This means that the study happened to also achieve very high coverage of the entire UK fund management industry. This is because almost all large fund management firms have RI capability and broadcast it. This was an unintended benefit because the sample aim was only to provide statistically meaningful coverage of fund management firms that focus on RI.

The 25 fund management firms represented a variety of industry sub-sectors, including life insurance firms, independent fund management firms, fund management firms owned by banks, and pension funds with their own inhouse fund managers. The fund management firms managed RI mandates on a segregated and on a pooled basis, on an active and passive (index) management basis, and used specialist, balanced and benchmark driven mandates for institutional and retail clients. The funds invested in UK, European, emerging and global securities.

The final sample of 25 firms compares favourably with other studies that have used interview based research with fund managers, including the 16 of Barker (1998), 11 of Hendry et al (2006), and 27 of Holland and Doran (1998).

Method

The data collection method involved face-to-face semi-structured interviews as well as a survey. Semi-structured interviews have the advantage of allowing interviewees to express opinions on wide-ranging, pre-determined issues (Barker, 1998).

An initial semi-structured question set was constructed from the relevant literature in consultation with expert individuals. Five pilot interviews were performed. Pilot interview selection was based on a stratification of the 25 fund management firms. During the pilot interviews fund managers were asked to consider the appropriateness of the questions as well as propose new and different questions that ought to be asked but had thus far not.

Each new pilot interview embodied the revisions suggested from the previous pilot. The number of revisions reduced with each new pilot. By the fifth pilot no further amendments to the question set were suggested. This was interpreted as the point when additional pilot interviews would yield no new properties, dimensions, or relationships to add to the question set (Holland (2005; Strauss and Corbin, 1998). This is sometimes referred to as a point of theoretical saturation. The emergence of an appropriate question set through practitioners highlighting what is significant was invaluable to the research design as well as informative in its own right (Strauss and Corbin, 1998). Parker and Roffey (1997) suggest that this is especially appropriate for dimensions of accounting and finance where there is relatively little existing literature. Last, experts were consulted with to provide final oversight and comment on the question set. This included the IMA, UKSIF and expert individuals.

The question set underwent significant change as the pilot interviews progressed. The main purpose of the pilot interviews was to discuss an appropriate question set and its wording and not to provide responses.

Following the pilot interviews the question set was fixed for the 25 live interviews.

As performed by Holland (1998b), phone calls were used to first communicate the pilot and live interviews to the fund managers. This was a useful means of discussing the background and motivation of the research, answering questions, overcoming initial doubts about participation, fostering an open and trusting relationship, and setting the meeting date. Each phone call was followed by a covering letter that formally introduced the project. The final question set was held-back and asked on the day in order to avoid rehearsed answers and encourage open-end narratives.

Interviews

The interviews were conducted between June and November 2007 mostly at the fund management firms' offices. Two researchers were common to all interviews. At the start of each interview the participants were asked to talk freely and from the viewpoint of existing and prior practitioner experience. Commentary on each question was not disrupted. The researchers main roles were to ask the questions, listen, take notes, and to develop a trusting atmosphere by being courteous, respectful, and acknowledging the privileged position of being given time and information by senior people.

All meetings were audio recorded. This avoided subjectivity around taking notes on a narrative as it is spoken. All parties benefit from this because it captures valuable conversation during limited meeting time. After each meeting the interview transcript was written-up in full. The written-up transcript helps the researcher get close to the original experience of the participant, even if it is, at best, a narrative construction of the original experience.

Detailed notes were also taken during each meeting. This gives additional voice by highlighting points of particular vocal emphasis and salience. Notes represent focal points when married to the written-up transcript. In order to increase confidence that notes correspond to points of vocal emphasis more

than one researcher attended each interview. Meeting notes were then cross-checked.

Data Analysis

The research data included interview transcripts, meeting notes, survey information, descriptive statistics, characteristics and typologies of the individuals and firms interviewed. Following Hendry et al (2006), attention was paid both to the content and the contexts of the interviews. A key aim was to look for repetitions, themes and cross-interview commonalities. These indicate theoretical saturation in areas, and give confidence that emerging theoretical frameworks are grounded in the data and capture underlying processes rather than individual company policies. A 5 step analytical process was used that followed Charmaz (2000). This involved coding and cataloguing, comparative methods, memo writing to construct conceptual analyses, sampling to refine emerging theoretical ideas and links, and integration of the data into the constructed framework. The research followed Holland (2005) by using quotations in order to give voice to the respondents, to represent them as accurately as possible, and to demonstrate grounding in the case data.

APPENDIX 2

Literature on the existence of a financial dividend to the more responsible firm

This appendix sets out academic literature on the existence of a financial dividend to the more responsible firm. Findings are organised according to three areas; society and financial performance, the workplace and financial performance, and the environment and financial performance.

Society and Financial Performance

A major focus of empirical research on society and financial performance has been corporate involvement in the community. Most evidence indicates a positive association between corporate community involvement and financial performance, although it remains unclear whether corporate community involvement leads to financial performance or financial performance leads to corporate community involvement.

Orlitzky, Schmidt and Rynes (2003) find a positive relationship between philanthropy and financial performance. Useem (1988) and File and Prince (1998) find that disclosure of donations feature prominently in corporate publicity, suggesting that corporate community involvement has marketing, visibility, and reputation motives. Levy and Shatto (1980), Fry, Keim and Meiners, (1982) and Brammer and Millington (2005) also find support for public relations related motives to corporate community involvement. For example, firms often delegate decisions concerning corporate giving to in-house or external public relations departments. In other work, Saiia, Carroll, and Buchholtz (2003) report international evidence that corporate community involvement is strategic, and undertaken to enhance financial success. Altman (1998) finds that many corporate executives view community involvement as a business imperative that creates a competitive advantage. Barnett and Salomon (2002) find that RI mutual funds which screen out firms with poor community relations records perform better than a benchmark fund.

Not all research confirms a positive relationship between society and financial performance. Berman, Wicks, Kotha, and Jones (1999) fail to find a significant relationship with corporate community involvement. Patten (1990) fails to find a relationship between corporate signing of the Global Sullivan Principles (these are based on the UN Declaration of Human Rights) and financial performance, and Seifert, Morris and Bartkus (2004) suggest that corporate community involvement does not lead to greater financial performance but rather prior financial performance leads to greater corporate community involvement.

Workplace and Financial Performance

Aspects of the workplace examined in relation to financial performance include work environment quality, employer attractiveness, employee quality and family-orientated policies. Work environment quality includes conditions, rewards, help, training, listening, the formation of work groups and welfare.

Berman, Wicks, Kotha, and Jones (1999) find a strong positive relationship between work environment quality and financial performance. Denison (1984) finds that work environment quality is positively associated with firm profitability and that changes in firm profitability follow changes in work environment quality by 2 to 3 years. Hansen and Wernerfelt (1989) find that work environment quality explains the largest proportion of the variance in firm performance within a model that includes several economic controls. Wright, Ferris, Hiller and Kroll (1995) find a significant positive stock price reaction to human resource affirmative action award announcements and a significant negative stock price reaction to announcements of settlement of lawsuits concerning discrimination.

Turban and Greening (1997), Greening and Turban (2000), and Backhaus, Stone and Heiner (2002) find a positive relationship between more responsible firms and employer attractiveness, suggesting that more responsible firms draw on a deeper pool of prospective employees. Albinger and Freeman (2000) find that attractiveness ratings of more responsible firms are higher for job seekers with high levels of job choice, suggesting that more

responsible firms draw on a more talented pool of prospective employees. Poe and Courter (1995) find that a large number of firms, including IBM, General Motors and Microsoft, broadcast responsibility as a recruitment tool by disseminating brochures that promote their companies' philanthropic, social and environmental programmes to prospective applicants. An Ernst & Young Center for Business Innovation survey found that investors rank the ability to attract and retain talented workers fifth among 39 stock picking factors (Shellenbarger, 1997).

In contrast to these positive results, family-orientated policies, including on-site or near-site childcare centres, childcare referral services, paternity leave, and opportunities for women to advance, are associated with lower financial returns. Explanations put forward in the literature for this finding are that family orientated policies are expensive, focus on few workers, and build ill feeling amongst non-targeted workers. Diltz (1995) finds that the market penalises family-related benefits such as parental leave and dependent care assistance. Barnett and Salomon (2002) find that RI mutual funds that screen on the basis of labour relations performed significantly worse than a benchmark fund. Preece and Filbeck (1999) compare risk adjusted returns for firms with high family-orientated benefits to a matched sample of firms. Over a 10 year period lower risk adjusted returns are observed on the high family-orientated benefit portfolio. In a later study Filbeck & Preece (2003) employ an event study methodology and report negative abnormal stock returns to family orientated award announcements.

Environment and Financial Performance

A significant body of research has examined whether environmental management can improve competitive position and financial performance. Overall, the evidence is consistent with environmental best practices changing corporate fundamentals for the long term, though not all evidence points to this.

Al-Tuwaijri, Christensen, and Hughes (2004) find that good environmental performance is associated with good economic performance. Orlitzky and

Benjamin (2001) find that high environmental performance firms have lower risk. Buhr (1994) reports that pollution abatement initiatives in mining firms resulted in higher yields and/or capture of a by-product that had market value. Nehrt (1996) finds that early timing of environmental strategies significantly contributed to profit growth in firms. Bragdon and Marlin (1972) find a positive relationship between the Council for Economic Priorities pollution index and return on equity for a sample of pulp and paper firms. Riahi-Belkaoui (1976) finds a positive relationship between pollution disclosure and excess return. Spicer (1978a, 1978b) finds some support for a positive relationship between financial market performance and environmental performance in the pulp and paper industry. Holman, New and Singer (1985) find a negative relationship between federal pollution compliance liability costs and total rate of return. Shane and Spicer (1983) find negative abnormal returns for poor pollution performance (this positive relationship is demonstrated in a downward direction only).

Cormier and Magnan (1997) examine water pollution in the pulp and paper, chemicals, oil refining, steel, metal and mining sectors and find that water pollution reduces a firm's stock market valuation. The larger a firm's pollution measure, the greater is the magnitude of implicit environmental liabilities which investors subtract from its stock market valuation. Weak evidence is found that the valuation impact of corporate pollution is conditional upon a firm's industry, with pulp and paper firms and chemical and oil refiners being penalised more severely for poor environmental performance than steel, mining, and metal firms.

Klassen and McLaughlin (1996) report significant positive abnormal stock returns following positive environmental events, such as environmental awards. The average market valuation of a firm rose \$80 million. Reduction of hazardous emissions was also important for changes in valuation. First time award announcements were associated with greater increases in market valuation, and smaller increases observed for firms in environmentally less clean industries. Significant negative returns were found for weak environmental management as indicated by environmental crises. Feldman,

Soyka, and Ameer (1997) find that improvements in environmental management and performance increase a firm's stock price by up to 5 percent. Lanoie, Laplante and Roy (1998) find that firms invest considerably more in the environment than they would pay in penalties imposed by regulators were they to fail environmental compliance.

Other benefits from improvements in environmental performance include product differentiation as a result of environmental certifications, redesign of packaging and products in more environmentally responsible ways, development of new products, and improved power in advertising (Shrivastava, 1995; Christmann, 2000). Stead and Stead (1995) find that revenue enhancement for firms is the primary motivation for implementing environmental best practices.

Not all empirical studies suggest a positive link between the environment and financial performance. Christmann (2000) finds mixed results for the relationship between environmental and financial performance, including studies that reveal no relationship, a positive relationship, and a U-shaped relationship. For example, moderate polluting firms outperform ones that pollute the most and least. Stead and Stead (1995) find that the implementation of process focused environmental best practices had positive effects on revenues for 44 percent of sample firms but that 56 percent reported zero or negative effects. Fogler and Nutt (1975) find no relationship between US Government pollution indices and price/earnings ratios. Rockness, Schlachter, and Rockness (1986) examine hazardous waste disposal in the chemical industry and find no relationship between two waste disposal variables and twelve indicators of economic performance. Freedman and Jaggi (1992) find no relationship between change in pollution output and financial performance. Berman, Wicks, Kotha, and Jones (1999) find no relationship between environmental performance and financial performance. Barnett and Salomon (2002) find that RI mutual funds which screened out firms with low environmental performance on average performed worse than the benchmark fund.