DOES ENVIRONMENTALLY RESPONSIBLE INVESTING PENALIZE INVESTORS?

by

Jennilee Julé BAdmin, University of Regina, 2005

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Simon Fraser University Library Burnaby, BC, Canada **ABSTRACT**

This study analyzes the performance of environmentally responsible

investing, in order to uncover whether investors are penalized for their choice to

invest in environmentally responsible companies. An equally weighted index of

environmentally responsible companies, measured by the Climate Disclosure

Leadership Index (CDLI), achieves abnormal returns using the Sharpe ratio,

Jensen's alpha and Fama and French Three Factor models. However, equally

weighted portfolios of the non-CDLI companies as well as the Financial Times

500 companies as a whole, achieve higher abnormal returns on all three

performance measures. The results clearly demonstrate statistically significant

abnormal returns on all three indices. Therefore, environmentally responsible

investing does not penalize investors on a risk-adjusted basis. However, it does

not reward investors to the same extent as investing without constraints.

Keywords: investing; green investing; environmentally responsible investing;

environment

Subject Terms: green investing; environmentally responsible investing

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DEDICATION

To my parents and grandparents, without your support and encouragement - I would not have made it this far

Couldn't have done it without you!

THANK YOU!!!!!!!!!

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GLOSSARY

Socially Responsible Investing (SRI)

An investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis.

Social Investment Organization (SIO)

A membership-based organization that provides information and research regarding growth and trends within socially responsible investment.

Carbon Disclosure Project (CDP)

Is an independent non-profit organization aspiring to create a lasting relationship between shareholders and corporations regarding climate change's implication for shareholder value and commercial operations

Climate Disclosure Leadership Index (CDLI)

Is comprised of 68 Financial Times 500 companies that demonstrate distinction in their responses to the CDP survey based on their reporting of greenhouse gas emissions and assessment of a company's climate change strategy.

Coalition for Environmentally Responsible Economies (CERES)

Is a national network of investors, environmental organizations and other public interest groups working with companies and investors to address sustainability challenges such as global climate change.

Investor Network on Climate Risk (INCR)

A network created in November 2003 to promote better understanding of the risks of climate change among institutional investors.

1 INTRODUCTION

Environmentally responsible investing has received increased exposure in the last few years as climate change is becoming more apparent in every day life. In addition, climate change was chosen as the shift most likely to affect the world in the future at the World Economic Forum (CDP FT500 Report, 2007). This paper will investigate whether investors can achieve the same or better returns through investing in environmentally friendly stocks. Although this paper focuses on environmentally responsible investing, it is important to establish a background of socially responsible investing. The paper will then turn its focus on the emergence of green investing both in a practical industry setting and through a literature review. A comparison of risk-adjusted returns, using the Sharpe ratio, as well as both the Jensen's alpha and Fama and French Three Factor Model will be employed to examine whether investors are penalized for investing in environmentally responsible companies. The Climate Disclosure Leadership Index (CDLI) will be used as an equally weighted index of environmentally responsible firms, while the remainder of the Financial Times 500 (FT500) will serve as the non-environmentally responsible firms. All performance measures will be calculated and compared for the equally weighted portfolios of CDLI firms, non-CDLI firms and the FT500 as a whole. In addition, all comparisons will be presented for the equal weighted CRSP index and

descriptive statistics and the Sharpe ratio will be presented for the value weighted CRSP.

1.1 Socially Responsible Investing

The roots of modern socially responsible investing can be traced back to the passionate political climate of the 1960s, stemming from issues such as the anti-Vietnam war movement, civil rights, concerns about the cold war and equality for women. In the 1970s, these issues broadened to include management and labour issues, as well as an anti-nuclear outlook. The 1980s brought racism and human rights to the forefront. The intensity of socially responsible attitudes continued to increase through Bhopal, Chernobyl and the Exxon Valdez incidents. In addition, as of late, the vast amount of information regarding global warming and ozone depletion has catapulted environmental concern to the forefront of socially responsible investment (Schueth, 2003).

Socially responsible investing (SRI) has risen dramatically from \$639 billion in 1995 to \$2.29 trillion in 2005, a 258% increase in 10 years. Schueth (2003) proposes that investors choose to invest responsibly in order to achieve their financial goals while catalyzing positive changes in corporate behaviour. In other words, investors exercise their power as shareholders and the traditional market mechanisms to assist in the creation of a more "just, sustainable and healthy society." Socially responsible investors possess two complimentary motivations for their investment decisions: (1) the need to invest their money to work in a manner that is more closely aligned with their personal values and priorities otherwise referred to as 'feel good investors' and (2) the investor's need

to put their investment capital to work in ways that support and encourage improvements in quality of life and serve as a catalyst for positive change in society at large, 'societal investors' (Schueth, 2003).

Investors employ three strategies in order to achieve their socially responsible investing goals:

- Screening including or excluding companies from portfolios based on specific social and/or environmental criteria.
- 2) Shareholder advocacy attempting to cooperatively steer management on a course design that is believed to improve financial performance over time and enhance the well-being of all the company's stakeholders.
- Community investing providing capital to people in low-income, at risk, communities who have difficulty accessing it through conventional channels.

Socially responsible investing has been plagued with controversy and opposing perspectives since its emergence in the 1960s. Proponents of SRI believe that ethical investing provides the capacity to change the world, in that, it allows people the ability to withdraw their funds from 'unethical' firms thereby depressing the stock values and raising the cost of capital. Once withdrawn, the funds can then be redirected to 'ethical' funds, increasing the value of these firms and decreasing their cost of capital. Sceptics, on the other hand, believe that screening funds will narrow the portfolio choices for non-financial reasons, increasing the risk of the fund and resulting in lower returns (Hoggett and Nahan, 2002). Given the opposing viewpoints attributed to SRI, it would be ideal to be

able to turn to academic research to provide evidence and support for one side or the other. Unfortunately, the evidence is also contradictory. Hogget and Nahan (2002) propose that ethical investment has become a generalization of investment. They cite that all of the top 250 firms on the Australian stock exchange are included in at least one ethical fund or another. "In other words, almost any legal business activity will be regarded as ethical by a sufficient group of investors to be included in an ethical fund." In contrast, Schueth (2003) advocates a growing body of evidence that supports the concept that investors are not required to sacrifice performance in order to invest in an ethical manner: "Many investors are realizing that responsibility can now walk hand-in hand with prosperity" (Schueth, 2003, p. 192).

1.2 Environmentally Friendly Investing

Climate change has become a topic of extreme concern, especially in the last couple of years. Scientists have long been warning people about the potential adverse effects that accompany the ozone depletion and global warming. The issue recently received a great deal of attention during the aftermath of last year's intense storms, such as Hurricane Katrina and the release of Al Gore's thought provoking documentary, "An Inconvenient Truth." "You know a cultural movement is real when the money men get on board. In just the past year a broad swath of financiers – venture capitalists, hedge funds, investment banks, public pension funds, and even stodgy insurers – have begun sinking billions of dollars into producers of ethanol, fuel cell superbatteries, microscopic bugs that turn glucose into plastic, environmentally friendly

pesticides, anything that might tap into the green craze" (BusinessWeek, 2006). Business tycoons, such as Warren Buffet, Bill Gates, Larry Page, Sergey Brin, Vinod Khosia, Richard Branson and Jeffrey Immelt are investing hundreds of millions, and in some cases billions, into various green ventures (BusinessWeek, 2006). The Social Investment Organization (SIO) cites that investor concerns over the risks associated with climate change has expanded the scope of environmental screening to encompass much more than mere compliance with environmental protection regulations (Social Investment Forum, 2005). The increased awareness of the risks of climate change have caused institutional investors to join organizations such as the Investor Network on Climate Risk (INCR), a program developed by CERES. Although not all participants in INCR employ screening to conduct their investments, many prefer the use of shareholder advocacy to voice their concerns. In addition, several prominent public retirement systems, including state and muricipal retirement systems in the US (for example, California, Vermont, and Maine) have agreed to implement innovative environmental investing mandates on portions of their portfolios. The SIO cites climate change and greenhouse gas emissions as the second most frequently proposed social-issue resolution. Their preliminary data, as of August 31, 2005, documented a 40 percent increase in the number of resolutions filed on climate change during the first eight months of the year. Environmental investments have often been viewed by the business community as a necessary evil; necessary to meet societal standards for controlling pollution and protecting public health, but evil because they result in lower overall profitability by diverting

resources away from their traditional use to one that was viewed to be fundamentally non-productive (Cohen et al, 1997). The premise of environmental investment as 'a necessary evil' has come under great scrutiny in recent years, not only by environmental advocates but also by leaders in business and academia as well as individual investors. Until recently, the majority of pollution control was completed in an 'end-of-the-pipe' manner; whereas, trends are now pushing pollution control away from compliance costs towards the creation of a competitive advantage (Cohen et al, 1997).

2 LITERATURE REVIEW

Environmentally responsible investing has recently emerged as a topic of interest to both investors and academics and as such, there is currently a limited body of research available to cover this topic. The research to date has focused on a variety of topics such as corporate behaviour, investor motivations, financial performance and firm performance. However, each topic has only received very limited coverage. This literature review is designed to highlight the wide array of topics within the environmentally friendly investment scope, beginning with a brief look at investor motivations, then moving through the topics of corporate behaviour, firm performance and finally focusing on financial performance.

Lewis (2001) aims to assess the investment motivations of both 'ethical/green' and 'standard' investors and address any moral dilemmas, confusions or inconsistencies they face. Lewis (2001) employed the focus group method in order to enable investors to air their views in a social context with fellow investors. Investors were divided into two categories, standard and ethical investors, enabling the creation of a forum where investors were able to discuss their various motivations for investing, any moral dilemmas they face and what they aim to achieve through investing. Forty-five 'standard' investors were placed into seven focus groups, while 49 'ethical/green' investors were placed into a further seven focus groups. Lewis (2001) found that neither 'ordinary' nor 'ethical' investors were keen to attribute their investment decisions to solely

economic factors. Both groups cited 'precaution' and 'foresight' as primary motivations as well as providing for future selves and the avoidance of becoming a burden on others. Naturally, however, ethical investors also reveal avoiding companies who manufacture munitions, are exploitive, and who pollute as primary motivations. Lewis (2001) also found that many 'ethical/green' investors invest ethically and non-ethically, often placing themselves in a moral dilemma. Those investors who offered explanations cited their 'inertia' and their requirement to make enough money to bequeath by not putting all of their money into one ethical 'basket'. The paper suggests that ethical/green investing had become a necessity because of government 'failure' and that it could change the commercial world for the better although the process is admittedly a slow one. Investors who agreed that they invested strictly to make money were in a small minority. In addition, ethical investors were reluctant to agree to any direct or implied characterization that could attribute "economically rational" interests to themselves. Instead, ethical investors state their need to feel as if they are part of a new self-sustaining movement. What Lewis (2001) found to be abundantly clear is it is not only ethical investors, but 'standard' ones as well, who see making investments as more than just a financial decision.

Heinkel, et al. (2001) explore the effects of green investment on the cost of capital of a firm. This paper asks the question: "is the reward from excluding particular stocks from one's portfolio simply the satisfaction obtained from not participating in the economic returns to irresponsible social behaviour? Or, is the restricted investment a type of boycott, designed to induce firms to act

appropriately?" The authors examine whether the presence of green investors causes firms to alter their corporate behaviour and reform their polluting behaviour. If this is found to be true, it can then be said that green investing has an economic impact. Heinkel et al. (2001) hold the view that green investors. through their boycotting the purchase of certain equities, changes the risk sharing opportunities in the market, in that there are fewer investors willing to hold securities of firms with polluting technologies, causing those share prices to decline, directly reflecting the lost diversification. Firms are classified into three groups: (1) acceptable firms with clean technologies, (2) unacceptable firms with unreformed polluting technologies, and (3) acceptable firms with reformed polluting technologies. In addition, the assumption is made that firms act to maximize share price and holding the total number of investors constant. An increase in the number of green investors, who refuse to hold equities of unreformed polluting technologies, results in a decrease in neutral investors demand, ensuring a higher expected return from the share price falling below that of an acceptable firm. When the decrease in price results in a differential that exceeds the cost of converting, then firms with polluting technologies will reform, broadening the risk sharing opportunities and shrinking the stock price differential. Heinkel et al. (2001) found that the cost of capital for unacceptable firms is about 9.5%, while the cost of capital for reformed firms is only 3.9%. The discrepancy in the cost of capital is required to induce an unacceptable firm to incur the cost of reforming. An important determinant in the impact of green investing is the cost required to reform polluting technologies. The authors

conclude that exclusionary social investment strategies alter the risk sharing opportunity, causing the share price of polluting firms to decline. When the price differential between acceptable and unacceptable firms is large enough, it becomes optimal for the unacceptable firm to pay the cost to reform its technology. Thus, social investing can affect corporate behaviour. In addition, a change in the risk sharing characteristics as green investing increases results in an economy-wide cost of capital change in a non-monotonic way with the cost of capital reaching a maximum when investable funds are equally split between green investing and non-green investing. In their model, Heinkel et al.(2001) found that more than 20% of investors are required to be 'green' in order to induce any polluting firms to reform; current empirical evidence indicates that at most 10% of funds are invested by green investors.

Hart and Ahuja (1996) demonstrate that evidence can be marshalled to support one of two views: (1) that pollution abatement is a cost burden on firms and is detrimental to competition or (2) that reducing emissions increases efficiency, resulting in a money savings and providing the firm with a cost advantage. In an effort to resolve this seemingly paradoxical relationship between firm performance and emissions reduction, they examined a sample of the S&P 500 firms using data drawn from the Investor Responsibility Research Centre's Corporate Environment Profile and Compustat. Hart and Ahuja (1996) test whether reducing pollution and emissions really produce bottom line results or just add investment burden and cost. Five hypotheses were tested:

- Emissions reduction in time period t will enhance operating performance (ROS) in time period t+1 through lower raw material, compliance, disposal and liability
- 2) Emissions reduction in time period t will enhance operating performance (ROA) in time period t+1 through the more efficient use of assets
- 3) Emissions reduction in time period t will enhance financial performance (ROE) in time period t+1 through corresponding improvements in ROS and ROA
- 4) Emissions reduction in time period *t* will show no relationship to operating or financial performance in that period as time is required for cost savings to be captured
- 5) Emissions reduction will enhance the operating and financial performance more for firms with higher emissions levels than those with lower emissions levels.

Two screens were applied to the S&P500 companies: (1) only those firms involved in manufacturing, mining or production of some kind were selected and (2) given that the pollution intensity of industries varies widely, a minimum of four firms per industry were required to ensure stable and reliable industry resources. After applying these two screens, 127 companies remained in the sample.

The results clearly demonstrate that reducing emissions has an effect on the operating and financial performance net of the control variables of R&D intensity, capital intensity, advertising intensity, leverage, and industry average performance. Therefore, hypothesis 1 and 2 are confirmed, hypothesis 3 is only partially confirmed as emissions reduction in time period *t* enhances financial

performance in time period t+2 rather than t+1. Hypothesis 4 and 5 were also confirmed. The results of this study demonstrate that it does indeed pay to be green and efforts to reduce emissions through pollution prevention appear to drop to the bottom line within one or two years after initiation. In addition, Hart and Ahuja (1996) demonstrate that the marginal cost of reducing emissions seldom exceeds the marginal benefits.

The focus now turns to examining the impact of green/environmentally responsible investing on financial performance. This is accomplished through looking at the works of two groups: (1) M'Zali. and Turcotte (1998) and (2) Cohen, Fenn and Konar (1997).

M'Zali and Turcotte (1998) analyzed the relationship between social/environmental and financial performance, through 3 Canadian environmentally responsible funds and 12 American socially responsible funds. Financial performance incorporates both risk and return characteristics as measured by the Sharpe and Treynor methods. The aim of this study was to demonstrate empirically whether the environmentally responsible Canadian mutual funds and the socially responsible American mutual funds outperform their own market. Four hypotheses were tested:

- In Canada, the environmental mutual funds outperformed the nonenvironmentally responsible mutual funds offered by the same institution.
- 2) In Canada, the environmental mutual funds outperformed the Canadian sock market index, the TSE 300.

- 3) In the United States, environmental/ethical mutual funds outperformed the other non-specifically ethical mutual funds offered by the same institution
- 4) In the United States, environmental mutual funds outperformed the American stock market index, the S&P 500.

The results of this study fell directly in line with the literature evaluated, neither unanimous nor convergent. M'Zali and Turcotte (1998) concluded their study by stating that when the quality of management is controlled, the environmental and social mutual funds do not particularly underperform.

Cohen, Fenn and Konar (1997) examine whether there is a relationship between environmental and financial performance of a firm. This is done through the construction of two industry-balanced portfolios of "high polluters" and "low polluters." The two portfolios are then compared on the basis of accounting and market returns. The portfolios are created using the S&P 500 and environmental performance measures based on actual government records or government mandated security-filing disclosures. Subjective or anecdotal analysis to characterize environmental performance is not used. The Investor Responsibility Research Centre served as the primary source of data. For the purpose of this study, green investing was defined as investing in companies that are the environmental leaders in their respective industries. This definition allows for the creation of diversified portfolios accounting for every industry sector. The environmental factors taken into account included: number of environmental litigation proceedings, superfund sites, number of non-compliance penalties,

dollar value of non-compliance penalties, volume of toxic chemical releases, number of oil spills, and volume of oil spills. In all cases, the firm's revenues divided the environmental factor being considered in order to adjust for firm size. Accounting returns were then measured using return on assets (ROA) and return on equity (ROE). Stock market performance was measured using the total return to a common shareholder, both before and after adjustments for risk. Cohen, Fenn and Konar (1997) found that in over 80% of the portfolio comparisons the "low polluter" portfolio performs better than the "high polluter" portfolio. If the comparison took into account only risk-adjusted returns, about 75% of the "low polluter" category performed better. Therefore, it does not appear that investors who construct a balanced portfolio of good environmental performers are penalized in terms of market performance. However, only about 20% of these comparisons were statistically significant, prohibiting the results from being interpreted as a 'green investing premium.' Rather the results should be interpreted as strong evidence of no 'green investing penalty.' The results found by Cohen, Fenn and Konar (1997) have very practical implications, in that one can construct a portfolio that mimics the S&P500 index and includes only those firms that ranked as environmental leaders. Such a portfolio would be expected to meet or exceed the market returns of the S&P500. Cohen, Fenn and Konar (1997, p. 126-127) conclude the paper by stating that the "global concern for the environment is a relatively new and fast changing issue... As environmental issues have taken on more and more importance, we would expect the relationship to become even stronger."

3 CLIMATE DISCLOSURE LEADERSHIP INDEX RESEARCH

Considering the recent research addressing the issue of environmental investing, research indicates there is no statistically significant indication that investors should expect to earn less through implementing an environmentally friendly investment strategy. The short time frame for which environmentally responsible funds have been available hinders the current research. Global warming has become a heated topic in the last year and as such, it can be expected that research and attention to this topic will increase.

The following study provides an analysis of performance measures for the Climate Disclosure Leadership Index (CDLI) created by The Carbon Disclosure Project (CDP) and compares the results to both the companies present on the FT500 that did not receive distinction and the FT500 as a whole. Utilizing the tests, assumptions and research methods of industry experts, this paper will integrate evolving literature and education to provide a comprehensive analysis of environmentally responsible investing.

4 DATA

The data utilized in this study was obtained through practices aligned with industry expectations. Given that the FT500 is comprised of the 500 largest companies worldwide, different sources were required to gain the return information for US and non-US companies. The CRSP database was utilized to obtain the historical returns for all 292 companies held on a US exchange, while Bloomberg was employed to gain the information for all 163 international companies. In addition, US value weighted benchmark factors and US risk-free rates were obtained through Kenneth R. French's Data Library. Historical monthly holding period returns were obtained over the period of January 1970 to December 2006, or the longest period available. For example, monthly historical holding period returns for Microsoft were obtained from April 1986 to December 2006.

4.1 Carbon Disclosure Project

The Carbon Disclosure Project (CDP) is an independent non-profit organization aspiring to create a lasting relationship between shareholders and corporations regarding climate changes' implications for shareholder value and commercial operations. The goal of CDP is to facilitate a dialogue, supported by quality information, from which a rational response to climate change will emerge. In each of the past five years, the CDP has conducted a survey seeking information on the business risks and opportunities presented by climate change

and greenhouse gas emissions data from the world's largest 2,400 companies.

The CDP, since its launch in 2000, has become the standard mechanism by which companies report their greenhouse gas emissions to investors.

4.1.1 CDP5 FT500 Report

The CDP5 FT500 Report is the fifth report issued by the Carbon Disclosure Project for the Financial Times 500 companies, based on information requested on February 1, 2007. CDP5 demonstrates through the increased support and improved response quality, that the private sector is actively engaged in addressing the global challenges presented by climate change. "As the global understanding of climate change and the associated risks and opportunities continue to develop, investors are increasingly demanding more advanced corporate disclosure on carbon performance," and companies are complying with CDP5 response rate of 77% or 383 of the 500 companies on the FT500.

Answered Questionnate 77%

Declined to Participate 8%

Provided Information 3%

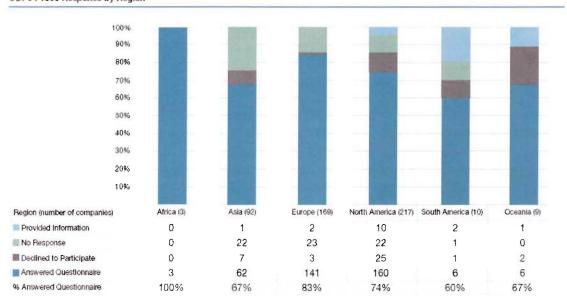
No Response 12%

Figure 1: FT500 Response Rates

Source: Carbon Disclosure Project Report 2007: Global FT500

Figure 2: FT500 Response by Region

CDP5 FT500 Response by Region



Source: Carbon Disclosure Project Report 2007: Global FT500

An analysis of the FT500 companies revealed that 95% of companies that consider climate change to present commercial risks have implemented a greenhouse gas reduction program with a specified target and timeline. In total, 76% or 286 of responding companies have implemented a greenhouse gas reduction program compared to 48% in CDP4. A somewhat surprising result in terms of disclosure rates found that carbon-intensive sectors lead with higher disclosure rates, with an average response rate of 75% compared to low-carbon sectors average response rate of 69%.

Figure 3: CDP5 Response Rate for Carbon-Intensive Sectors

Cluster	Response Rate
Aerospace & Defense	78%
Automobiles and Auto Components	92%
Chemicals (Diversified and Specialty)	100%
Construction Materials and Building Products	100%
Electric Power - North America	86%
Electric Utilities - International	81%
Integrated Oil & Gas	71%
Metals & Mining and Steel	76%
Multi-Utilities & Unregulated Power	83%
Oil & Gas Exploration and Production	100%
Pharmaceuticals	95%

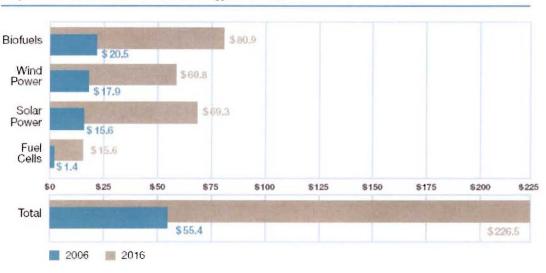
Source: Carbon Disclosure Project Report 2007: Global FT500

Unfortunately, despite significant risk exposure, only 64% of responding carbonintensive companies have allocated board level or upper management responsibility for climate change.

The implications of climate change are leading to new developments, especially within the energy sector. CDP reports that in 2006, "the global investment in sustainable energy reached USD 70.9 billion, an increase of 43% from 2005. In addition, the market revenues for the four benchmark technologies – solar photovoltaics, wind power, biofuels and fuel cells – are forecasted to increase to USD 226 billion by 2016."

Figure 4: Projected Revenue Growth in Clean Energy

Projected Revenue Growth in Clean Energy, 2006-2016



Source: Clean Edge, 2007, 37

Source: Carbon Disclosure Project Report 2007: Global FT500

One of the most encouraging findings of CDP5 was that the gap between awareness and actions appears to be tightening significantly among the responding FT500 companies. The purpose of CDP since its inception has been to increase awareness and provide investor-relevant information about climate change to enable informed action. "Unless and until governments agree on material taxation or regulation of greenhouse gas emissions, investors will lack incentive to act, both more systematically and in greater numbers, and the full potential of the project is unlikely to be realized" (CDP5 FT500 Report, p. 11).

4.2 Climate Disclosure Leadership Index

The Climate Disclosure Leadership Index (CDLI) is comprised of 68 FT500 companies that demonstrate distinction in their responses to the CDP

survey based on their reporting of greenhouse gas emissions and assessment of a company's climate change strategy (www.cdproject.net/climateleaders2007.asp). The CDLI is designed to highlight the FT500 companies that provided the most comprehensive response to the Carbon Disclosure Project (CDP) questionnaire. The inclusion in the CDLI is based on an absolute score versus a 'best in class' method. The index is organized to insure representation of all industry sectors included in the FT500 that meet the qualifying criteria. Companies with a CDLI score of 85 or greater are included in the index. The CDLI provides an evaluation of which companies on the FT500 have developed the most comprehensive climate change disclosure practices. The assessment was based on an analysis and scoring of the CDP questionnaire responses. Questions were weighted, for both carbon-intensive and low-carbon sectors, in order to create a 100-point scale. As a result of the differing requirements for the carbon-intensive and low-carbon sectors, the CDLI is divided into two groups (See http://www.cdproject.net/download.asp?file=CDP5 Letter and Questionnaire.pdf for the CDP5 Questionnaire). It is important to keep in mind the following considerations when utilizing the CDLI:

- The analysis is based on self-reported, largely non-verified responses.
- 2) The choice of a score of 85 as the cut-off point for inclusion was arbitrary. As in the creation of any index, efforts to set a standard for inclusion will ultimately excluded qualified firms.
- 3) Responses to the CDP5 questionnaire (see Appendix 1) do not necessarily provide an accurate reflection of companies' carbon performance nor do they necessarily reflect companies' traditional

carbon disclosure through traditional reporting channels such as annual reports, environmental reports, SEC and other regulatory filings. (CDP5 FT500 Report, 2007)

In addition, to demonstrate the relationship between leadership in carbon disclosure and leadership in carbon performance, Innovest' Carbon BetaTM ratings were introduced to the CDLI. Innovest, through proprietary methodology, calculates the net carbon exposure of a firm, taking into consideration current and potential regulatory frameworks within the different countries in which a corporation operates. The concept also accounts for the different risks, at an industry-specific level, to which companies may have exposure. Moreover, the rating model integrates an analysis of risk management capability and strategies profit opportunities. Finally, the Carbon BetaTM platform includes a proprietary compliance cost model that estimates, as a percentage of earnings before interest, tax, depreciation and amortization (EBITDA), the current or potential exposure a company has when complying with climate change regulation (www.cdproject.net/climateleaders2007.asp). (See Appendix 2 for complete CDLI index and Carbon BetaTM)

Historical holding period returns were obtained for 61 of the 68 companies included in the CDLI. The data for the eight companies were unattainable as a result of lack of historical information. All data was then used to create an equally weighted portfolio. Adjustments were made to take into account the end of a companies' historical returns. In illustration, the average return for the equally weighted portfolio on December 2006 was calculated using all 61

companies; whereas, the January 1970 return was calculated using 13 companies. In addition, holding period returns were obtained for 455 of the 500 firms of the FT 500 firms; again, this discrepancy is a result of a lack of historical information. The same method was employed to obtain the equally weighted portfolios for both the FT500 as a whole and the portfolio of those FT500 companies not included in the CDLI Index. (See Appendix 3 for a full list of companies included in the FT500). The data inclusion for the FT500 firms was 455 on December 2006 and 84 on January 1970 and the inclusion for the non-CDLI index was 395 on December 2006 and 71 on January 1970.

5 METHODOLOGY

The first performance measure employed was the Sharpe ratio, which was calculated according to its standard definition:

$$S = \frac{R_P - R_F}{\sigma_P}$$

where R_P is the average return on an equally weighted portfolio, R_F is the average risk free rate of return, and σ_P is the standard deviation of the equally weighted portfolio. The Sharpe ratio measures the risk adjusted return achieved on a particular investment.

Jensen's α (alpha) was the second performance measure employed. Jensen's α is a risk-adjusted performance measure, which represents the return attained above or below the Capital Asset Pricing Model (CAPM) predicted return. Jensen's α is measured using the following regression equation:

$$R_P - R_F = \alpha_D + \beta_P (R_M - R_F) + \epsilon$$

where R_P-R_F represents the average of the monthly returns on the equally weighted portfolio minus the risk free rate of return for the corresponding month, α_P represents the abnormal return above or below the CAPM predicted return, θ_P the beta of the portfolio, and R_M is the return on the market.

The third and final performance measure employed was the Fama and French Three Factor model. The three-factor model is measured using the following regression:

$$R_P - R_F = \alpha_p + \beta_P (R_{M^-} R_F) + s_P SMB + h_P HML + \epsilon$$

where $R_P - R_F$ represents the average of the monthly returns on the equally weighted portfolio minus the risk free rate of return for the corresponding month, α_P represents the abnormal return above or below the CAPM predicted return, β_P the beta of the portfolio, R_{M^-} R_F is the excess return on the market above the risk free rate, SMB represents small minus big firms, and HML represents high minus low book value stocks.

6 RESULTS

The Sharpe ratio was calculated for equally weighted portfolios of CDLI firms, non-CDLI firms, FT500, as well as the value weighted and equally weighted markets. Table 1 below details the Sharpe ratio values for the periods January 1970 to December 2006 and January 1995 to December 2006, taking into account all firms and only those firms listed on a US exchange.

All portfolios achieved statistically significant abnormal returns for the period of January 1970 to December 2006. This may be a result of the use of the FT500, as the index encompasses the 500 largest companies in the world, or potentially the use of an equally weighted portfolio. A noteworthy explanation of the results attained is achieved when comparison is made between the three equally weighted portfolios and the equally weighted market. As seen from the table below, the arithmetic return and excess return of the equally weighted market is less than that obtained on any one of the three equally weighted portfolios. In addition, the standard deviation of the equally weighted market exceeds that of all three equally weighted portfolios, demonstrating the decreased risk associated with the 500 largest companies in the world. The inclusion of the statistics and Sharpe ratio of the value-weighted index offers further insight. As expected, the arithmetic and excess returns are less than the returns found for the equally weighted index. This is a result of the greater weight placed on small firms within an equally weighted market index. The

increased weighting on small firms also contributes to the increased risk and risk-adjusted return of the equally weighted portfolio. Noteworthy however, is the decreased risk and higher risk-adjusted return all portfolios comprised of the FT500 achieved in comparison to the equally weighted and value weighted market index. This result allows one to infer that, despite the literature, a portfolio comprised of the largest companies in the world was able to outperform an equally weighted portfolio index including a large weighting on small stocks, potentially unveiling an exception to the small firm effect.

Examining the January 1995 to December 2006 period provides no change in the relationship between the portfolios. However, it is interesting to note that the increase in arithmetic and excess returns is accompanied by a decrease in the risk parameter. The same result was found comparing the periods for US only holdings. The addition of statistics for the US only companies was conducted to prove the robustness of the tests and account for comparability given the use of US market and risk free data. The results demonstrate little difference from the FT500 portfolios; slightly higher returns during the January 1995 – December 2006 period and slightly higher risk.

Table 1: Descriptive Statistics and Sharpe Ratio

In order to conduct an evaluation of the CLI Index, a comparison of the return on the equally weighted portfolio of stocks and to the return on the value weighted market is conducted. This table demonstrates these excess returns on an arithmetic basis.

Excess returns are measured as:

Excess =
$$R_P - R_F$$

The table also calculates the Sharpe Ratio:

$$S = \frac{R_P - R_F}{\sigma_P}$$

where R_P is the average return on the equally weighted portfolio, R_f is the corresponding monthly risk free rate and σ_P is the standard deviation of the equally weighted portfolio.

The CDLI (Climate Disclosure Leadership Index) is an equal weighted portfolio of companies from the FT500 that have received distinction for the disclosure of greenhouse gas emissions and assessment of the company's climate change strategy

The non-CDLI is an equal weighted portfolio of those companies on the FT500 that did not receive distinction

The FT500 (Financial Times 500) is an equal weighted portfolio of the world's 500 largest companies.

The equally weighted market is an equally weighted market index comprised of all companies held on an American exchange

The value weighted market is an index formed based on the market capitalization of all companies held on an American exchange.

Jan 1970 - Dec. 2006	Arithmetic Return	Excess Return	$\sigma_{\rm r}$	Sharpe Ratio
CDLI	0.0139	0.0090	0.0432	0.2091
non-CDLI	0.0157	0.0108	0.0455	0.2382
FT500	0.0154	0.0106	0.0446	0.2370
Equally Weighted Market	0.0124	0.0075	0.0573	0.1315
Value weighted Market	0.0098	0.0049	0.0453	0.1091

Jan 1995 - Dec 2006	Arithmetic Return	Excess Return	σ_{r}	Sharpe Ratio
CDLI	0.0152	0.0120	0.0395	0.3038
non-CDLI	0.0167	0.0135	0.0390	0.3470
FT500	0.0165	0.0133	0.0388	0.3439
Equally Weighted Market	0.0141	0.0109	0.0549	0.1993
Value weighted Market	0.0104	0.0072	0.04 <u>3</u> 4	<u>0.</u> 1650

US Only

Jan 1970 - Dec 2006	Arithmetic Return	Excess Return	σ_{r}	Sharpe Ratio
CDLI	0.0142	0.0093	0.0439	0.2123
non-CDLI	0.0161	0.0113	0.0469	0.2403
FT500	0.0158	0.0110	0.0459	0.2389
Equally Weighted Market	0.0124	0.0075	0.0573	0.1315
Value weighted Market	0.0098	0.0049	0.0453	0.1091

Jan 1995 - Dec 2006	Arithmetic Return	Excess Return	σ_{r}	Sharpe Ratio
CDLI	0.0158	0.0126	0.0425	0.2975
non-CDLI	0.0178	0.0146	0.0408	0.3577
FT500	0.0175	0.0143	0.0407	0.3512
Equally Weighted Market	0.0141	0.0109	0.0549	0.1993
Value weighted Market	0.0104	0.0072	0.0434	0.1650

Jensen's alpha was also calculated for the three equally weighted portfolios, periods of January 1970 to December 2006 and January 1995 to December 2006, as well as companies held on US exchanges only. Table 2 below details the results obtained through the time-series regression; all portfolios achieved statistically significant abnormal returns above that predicted by the CAPM.

Again, this may be a result of the use of the large companies included in the FT500.

In addition, all three equally weighted portfolios also obtained betas below the expected beta of the market of one. In order to assist in the explanation of this phenomenon, another regression was calculated regressing the excess return of an equally weighted market portfolio on the excess return of a value weighted portfolio. The results are consistent with the values expected; the α was slightly above 0 at 0.00227 and the beta was also slightly above 1 at 1.0654, representing the effect of the increased weighting on small stocks when utilizing an equally weighted portfolio. This result further deduces that the use of the 500 largest companies unveils a potential discrepancy in the small firm effect.

Evaluating the effect of a shorter time period, results in a higher alpha and lower beta for all companies. The US only regressions for both time periods demonstrate slightly higher alphas and betas for all except the CDLI for the time period of January 1995 to December 2006, where the exact value for alpha was obtained.

Table 2: Jensen's Alpha Statistics

The Jensen's α risk measure is included in the table below. It is calculated using the following equation:

$$R_P - R_F = \alpha_D + \beta_P (R_M - R_F) + \epsilon$$

where R_P is the average return on the equally weighted portfolio, R_f is the corresponding monthly risk free rate, and R_{M^-} R_F is the market risk premium. These factors represent the basis for the CAPM model and from calculating a time-series regression, alpha (α_p) is the excess return earned above the market risk premium. The regression tests the hypothesis that $\alpha_p = 0$ or that the returns on environmentally friendly investments are not significantly different from the returns on the market.

The CDLI (Climate Disclosure Leadership Index) is an equal weighted portfolio of companies from the FT500 that have received distinction for the disclosure of greenhouse gas emissions and assessment of the company/s climate change strategy

The non-CDLI is an equal weighted portfolio of those companies on the FT500 that did not receive distinction

The FT500 (Financial Times 500) is an equal weighted portfolio of the world's 500 largest companies.

The equally weighted market is an equally weighted market index comprised of all companies held on an American exchange

Jan 1970 - Dec. 2006	α	t(a)	β
CDLI	0.0049	5.0430	0.8466
non-CDLI	0.0062	8.4834	0.9480
FT500	0.0060	8.4814	0.9320
Equally Weighted Market	0.0023	1.5257	1.0654

Jan 1995 - Dec 2006	α	t(a)	β
CDLI	0.0063	3.8958	0.7968
non-CDLI	0.0077	5.4375	0.8136
FT500	0.0075	5.4138	0.8113
Equally Weighted Market	0.0036	1.3089	1.0324

US Only

FT500

Equally Weighted Market

Jan 1970 - Dec 2006	α	t(a)	β
CDLI	0.0050	5.6854	0.8826
non-CDLI	0.0063	10.2925	0.9961
FT500	0.0061	10.4214	0.9778
Equally Weighted Market	0.0023	1.5257	1.0654
Jan 1995 - Dec 2006	α	t(a)	β
CDLI	0.0063	4.2090	0.8915
non-CDLI	0.0083	6.7056	0.8772

0.0080

0.0036

6.6952

1.3089

0.8793

1.0324

The results of the Fama and French Three-Factor Model regression are detailed in Table 3 below and were similar to those obtained through the Jensen's regression. The alphas all achieved statistically significant results above the predicted CAPM value. In addition, the betas calculated were below the expected value of one. These results can be explained when focusing on the Fama and French variables. The sp variable, for period January 1970 to December 2006, achieved results slightly above 0, ranging from 0.0430 for the CDLI firms to 0.1221 for the non-CDLI firms. This result is consistent with the results obtained by Fama and French (1996) and representing the fact that the FT500 is comprised of the 500 largest companies in the world. The value for sp is expected to be slightly below 0 for portfolios comprised of the largest stocks and between 1.17 and 1.47 for portfolios comprised of small stocks (Fama and French, 1996). This result also demonstrates that larger firms within the FT500 are held within the CDLI. In addition, the variable hp is employed to measure the

book/price ratio. A higher weighting is indicative of a value portfolio. The values obtained for the h_P variable in the three equally weighted portfolios ranged between 0.0705, for the CDLI firms, to 0.1485, for the non-CDLI firms; representing the large number of growth stocks in the FT500. Again, the inclusion of the regression on an equally weighted market index provides further insight into the results obtained for the three equally weighted portfolios comprised from the FT500. As seen in Table 3 below the regression on the equally weighted market index achieves a significantly larger value for s_P as well as h_P , indicating the larger weights given to small and value stocks.

Once again, testing the robustness of the model through a shorter time period and using companies listed on a US exchange only does not affect the relationship between portfolios. The results change slightly for the period of January 1995 – December 2006 in that the alpha increases slightly, the beta is slightly lower, and the values for s_P and h_P increase, indicating a slightly larger weighting given to smaller firms and value stocks. The US only regressions provide a slightly different result: the value of beta increases, s_P and h_P decrease, indicating a further decrease in weighting toward small and value stocks.

Table 3: Fama-French Parameters

The following table acknowledges the pricing model developed by Fama and French (1992) and their addition of size and book-to-market parameters to the CAPM in order to explain the cross-section of expected returns. The Fama-French model is applied as:

$$R_P - R_F = \alpha_p + \beta_P (R_M - R_F) + s_P SMB + h_P HML + \epsilon$$

where R_P is the monthly return on an equally weighted portfolio, R_F is the risk free return, R_{M^-} R_F is the market risk premium. The Fama and French variables added to this regression include SMB (small minus big) and HML (high minus low).

The CDLI (Climate Disclosure Leadership Index) is an equal weighted portfolio of companies from the FT500 that have received distinction for the disclosure of greenhouse gas emissions and assessment of the company/s climate change strategy

The non-CDLI is an equal weighted portfolio of those companies on the FT500 that did not receive distinction

The FT500 (Financial Times 500) is an equal weighted portfolio of the world's 500 largest companies.

The equally weighted market is an equally weighted market index comprised of all companies held on an American exchange

Jan 1970 - Dec. 2006	α	t(a)	β	S	h
CDLI	0.0044	4.3902	0.8587	0.0430	0.0705
non-CDLI	0.0051	7.2364	0.9678	0.1221	0.1485
FT500	0.0050	7.2485	0.9508	0.1094	0.1369
Equal weighted market	0.0004	0.3815	1.0228	0.7579	0.3362

Jan 1995 - Dec 2006	α	t(α)	β	s	h
CDLI	0.0049	2.9583	0.8493	0.1021	0.1021
non-CDLI	0.0056	4.0906	0.8944	0.1435	0.2412
FT500	0.0055	4.0874	0.8884	0.1381	0.2305
Equal weighted market	0.0025	1.0375	1.07 <u>9</u> 0	0.5063	0.2753

US Only

Jan 1970 - Dec 2006	α	t(α)	β	S	h
CDLI	0.0045	5.0132	0.8946	0.0334	0.0645
non-CDLI	0.0055	9.0856	1.0124	0.0964	0.1199
FT500	0.0054	9.2094	0.9935	0.0861	0.1110
Equal weighted market	0.0004	0.3815	1.0228	0.7579	0.3362

Jan 1995 - Dec 2006	α	t(a)	β	S	h
CDLI	0.0050	3.2170	0.9432	0.0789	0.1508
non-CDLI	0.0063	5.1973	0.9560	0.0885	0.2188
FT500	0.0061	5.2084	0.9537	0.0871	0.2075
Equal weighted market	0.0025	1.0375	1.0790	0.5063	0.2753

When analyzing the results provided for all three performance measures it is important to remember the restriction with the use of the CDLI. As mentioned in the Data section, the CDLI is comprised of companies that demonstrated distinction in their reporting of greenhouse gas emissions and assessment of a company's climate change strategy. Readers should keep in mind that the analysis is based on self-reported responses and the responses do not necessarily reflect traditional carbon disclosure measures such as annual reports, environmental reports, SEC and other regulatory filings.

7 AREAS FOR FURTHER STUDY WITHIN GREEN/ENVIRONMENTALLY FRIENDLY INVESTING

The results of this study clearly demonstrate the ability to earn abnormal returns through investing in environmentally responsible companies. However, this result becomes clouded when viewed in comparison with the other firms within the FT500. As a result, further research may be warranted with the use of a more diverse set of data, including both large and small cap firms. In addition, when calculating the performance measures for a time period beginning on January 1970, only 84 firms were present at the beginning of the period. Interestingly, all 84 firms present are held on an American exchange, leading to the question of whether the analysis would provide more useful results, both in terms of size diversity and time horizon, if analysis was conducted using American exchanges instead of the FT500 companies. Additionally, given that green investing has just begun its emergence as a distinct, profitable and required investment segment, evaluation of returns in the next few years may provide a very different story. Investors can also expect to see more mainstream companies increasing their green technology as regulations increase. The attitude towards green investment is shifting dramatically; green has become a mainstream business attracting mainstream investments (BusinessWeek, 2006). Therefore, investing in green technology now may give investors the opportunity to obtain a first mover advantage and provide a potential research topic in the future.

8 CONCLUSION

Industry has begun to view the emergence of green investing as a strategic opportunity; green investing in 2006 is being compared to investing in technology in 1976, at a time when computer hardware was just being introduced – the sky is the limit if you bet on the next Intel (BusinessWeek, 2006). Industry is coming together: "We're seeing an alignment of the environmental interests, automakers, the agricultural industry, the security and energy-independence proponents, even the evangelicals," says billionaire venture capitalist L. John Doerr. "When did all those [interests] come together before?" (BusinessWeek, 2006).

The results of this study coincide with the industry expectations, in that they demonstrate the ability of investors to earn abnormal returns through investing in companies that exercise environmental responsibility. However, abnormal returns are also attained for both the non-CDLI and FT500 equally weighted indices. Therefore, evaluating the performance of the 500 largest companies in the world, the abnormal returns achieved exceed those obtained through investing in an equally weighted portfolio of the companies held on the Climate Disclosure Leadership Index.

Consequently, investors are not penalized for investing in environmentally responsibly companies. However, they may not achieve the same degree of abnormal returns available when choosing investments without constraints.

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APPENDICES

APPENDIX 1 – THE CLIMATE LEADERSHIP DISCLOSURE INDEX FIRMS

Sector	Companies	Scope 1 Emmisions reported in CDP5 (Tonnes CO2e)	Scope 2 Emmisions Reported in CDP5 (Tonnes CO2e)	Total Scope 1,2,3 Emissions Reported in CDP5 Tonnes CO2e)	Innovest Carbon CDLI Beta Score Ranking
Carbon-Intensive Sect	OVC.				
Carbon-intensive Sect	015				
Automobiles	DaimlerChrysler Nissan Motor	1,910,221 797,000			
Diversified Chemicals	n • a	4,100,000			
	E I du Pont de Nemours (DuPont)	9,000,000	3,100,000	12,100,000	95 AAA
Electric Power		40 400 000	222 222	40.000.000	05.44
Companies – N.	Exelon	12,100,000			
Electric Utilities -	Entergy Corp	28,350,587	773,114	29,123,701	90 A
International	Iberdrola	21,964,784	3,475,029	25,482,138	100 AAA
international	Fortum	11,000,000	10.000 10.000 00	May you self at more	
	Scottish & Southern Energy	25,880,000			
Gas Utilities	Gaz de France	5,578,946	Soles Newscon		
Household Durables	Matsushita Electric	1,042,121		EUROS - 65 AC - 55 AC	
Integrated Oil & Gas	BP	59,300,000			
	Repsol YPF	26,492,885			
	Total	57,800,000		686,800,000	
	ENI	59,300,000	3,750,000	63,050,000	85 A
	Exxon Mobil	145,500,000	13,300,000	158,800,000	85 BB
	Petrobras	49,860,000	571,960	50,431,960	85 BB
	Suncor Energy	11,030,033	315,741	11,345,774	
Metals & Mining	Rio Tinto	15,300,000		654,336,000	
	BHP Billiton	23,200,000		51,928,500	
	Alcan	20,300,000		31,900,000	
	Alcoa	33,900,000	26,200,000	60,100,000	85 AAA
Multi-Utilities &	No.				
Unregulated Power	Suez	83,421,727		83,421,727	
	Centrica	8,775,035		8,912,286	
	Veolia Environnement	36,482,620	3,025,415	39,674,035	65 A
Oil & Gas Exploration					
& Production	Woodside Petroleum	8,273,583	14,720	8,288,303	85 BB
Pharmaceuticals	Pfizer	1,223,876	1,184,441	2,639,317	85 A
Steel	Sumitomo Metal Inds.	21,810,000	4,470,000	26,280,000	85 AA

Sector	Companies	Scope 1 Emmisions reported in CDP5 (Tonnes CO2e)	Scope 2 Emmisions Reported in CDP5 (Tonnes CO2e)	Total Scope 1,2,3 Emissions Reported in CDP5 Tonnes CO2e)	CDLI Score	Innovest Carbon Beta Ranking
Low-Carbon Sectors						
-						
Banks – Europe	HBOS Unicredit Group	47946 119,330	The second from the con-			AAA
Banks – Japan &	Shicredit Group	119,550	040,030	030,032	0.0	~~~
Australia	Westpac Banking	102,942	5,273	116,102	100	AAA
	ANZ Banking	12,746	171,729	197,069	90	AA
Banks – North						
America	Royal Bank of Canada	8,554	1000 1000 1000 100	11.1.1.1.1.2.1.1.1.1.1.1.1.1.1.1.1.1.1.		AAA
	CIBC	10,312	37,379	70,098	80	AAA
Beverages & Tobacco	British American Tobacco	365,550	376,712	3,109,797	95	Α
	Coca Cola	1,962,287	and the second of the second of	and the second s		AA
	Diageo	505,157	243,521	2,253,678	90	AA
Communications					1979	
Equipment Computers &	Ericsson	8,000	145,000	690,025	90	AAA
Peripherals	Hewlett-Packard	134,500	1,464,000	2,062,300	100	AAA
rempherais	EMC	30,893				
	Dell	7,000		recon of course and		AAA
	IBM	533,064				AAA
	Sun Microsystems	13,804	241,128	254,932	85	BBB
F 0 D D-4-111	Tanan	4 400 050	0.040.000	0.407.000	00	
Food & Drug Retailing Food Products	Unilever	4,106,958 1,581,565	2,346,380 1,711,317	22.00		AAA AAA
rood Froducts	Cadbury Schweppes	458,276	551,153			AAA
Global Banks	Citigroup	48,507		22,882,483		AA
	Royal Bank of Scotland	96,799	389,242	556,041		ввв
	ABN Amro Holding	0	336,514	414,720	90	AAA
	Standard Chartered	1,397	128,479	139,927		AA
	UBS	31,519	230,015	293,158		AAA
	Barclays HSBC	36,737	370,004	473.201		AA AAA
	ING	113,708	634,000 227,555	813,000 341,263		AAA
	Societe Generale	27,829	128,479	223,948	85	
Health Care						
Equipment & Supplies	Baxter International	245,000	486,000	884,700	90	AAA
Life & Health						
Insurance	Legal & General Group	0	10,359	15,344	90	BBB
Multi-Line Insurance &		750	100,000	11-1-11	707.	
Brokerage	Allianz	55,854	418,588	630,457	90	AA
→ 0.0 • Procedure re-control and re-	Aviva	30,437	39,439	126,269		AAA
Reinsurance	Swiss Re	8,158	59,157	95,895	85	AAA
Integrated Telecommunication						
Services	Deutsche Telekom	353,955	2,828,777	3,182,732	95	AAA
00.11005	BCE	114,463	187,615	318,179		AA
	BT Group	253,547	467,381	779,617	85	Α
	Telstra	149,075	1,031,576	1,360,574	85	
Multiline Retail	Marks & Spencer	66,000	212,000	5,584,000		AAA
Dool Estate	Wal Mart Stores	4,306,369	14,413,425	20,388,574	85	A
Real Estate						
Management & Development	Land Securities	76,347	162,741	479,023	95	AAA
Development	Land Occurred	10,347	102,141	410,020	03	. 4 M 1
Software & IT Services	Microsoft	14,730	137,870	416,170	90	BBB

APPENDIX 2 – FT500 COMPANIES

Page 1

Poar End	31/12/2006	31/12/2006	30/06/2006	31/12/2006	31/12/2006	31/12/2005	31/03/2006	31/12/2006	31/12/2005	31/12/2006	31/12/2006	31/12/2006	30/06/2006	31,01/2007	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006
Dividend Yield	1.7	2.9	1.3	3.8	3.4	9.0	1.2	4.2		4.0	4.0	5.2	1.8		5.0	2.2	3.8	10	24		2.8		1.0	2.7	3.8
PE ratio	11.3	17.7	23.0	11.7	20.9	18.6	17.9	10.9		8.4	6.6	12.5	22.6	17.3	11.4	21.2	9.6	12.5	16.0	15.3	12.3	10.2	21.4	9.4	14.6
Met income \$m	39.500.0	20.829.0	12,599.0	21,538.0	7,356 0	11,962.7	11,645.1	21.133.0	4,8519	25,442.0	22.000.0	15,789.0	8.6840	11,284.0	12,022.0	8,530.2	19,337.0	14,048.0	11,053.0	11,015.0	14,444.0	15.692.3	5,533.4	17,138.0	10,576.5
\$ 9 3119	75.5	35.4	27.9	513	39.4	10.4	639	51.0	9.0	33.2	108	17.5	63.2	470	62.9	9.1	25.3	67.2	60 3	108,990.0	48.4	8.69	0.5	74.0	27.4
Tumover \$m	365,467.0	160,657.0	44,282.0		63,055.0	53,197.2	178,530.8			318,845.0	265,906.0		è8,222.0	344,992.0	70,324.0	38,158.8	48,371.0		53,324.0			176,936.7		204,892.0	45,581.4
Sector			se		Sus												ology		ology.						ology
			Service		nıcatio											ations	echno		techno						orechno
Market value \$m	429.566.7 Oil & Gas Producers	363,611.3 General Industrials	272,911 7 Software & Computer Services	252.857 3 Banks	246.206 3 Fixed Line Telecommunications	245,911 4 Oil & Gas Producers	230,831 6 Automobiles & Parts	228,177 3 Banks	224,767 6 Banks	214.018.4 Oil & Gas Producers	203.843.5 Oit & Gas Producers	202.146.3 Banks	199.293 8 Household Goods	193.642.8 General Retailers	184,277 3 Tobacco	181,798 6 Mobile Telecommunications	179,015 4 Pharmaceuticals & Biotechnology	174,878 3 Nonlife Insurance	174,397 2 Pharmaceuticals & Biotechnology	168,279.8 Nonlife Insurance	168.040.6 Banks	167,064.9 Oil & Gas Producers	165.510.5 Banks	159,589 4 Oil & Gas Producers	156,975 1 Pharmaceuticals & Biotechnology
Country	US 429.566.7 Oil & Gas Producers	US 363,611.3 General Industrials	US 272,911 7 Software & Computer	US 252.857 3 Banks	US 246.206 3 Fixed Line Telecommit	Russia 245,911 4 Oil & Gas Producers	Japan 230,831 6 Automobiles & Parts	US 228,177 3 Banks	China 224,767 6 Banks	UK 214,018.4 Oil & Gas Producers	UK 203.843.5 Oit & Gas Producers	UK 202.146.3 Banks	US 199, 293 8 Household Goods	U.S 193,642.8 General Retailers	US 184,277 3 Tobacco	Hong Kong 181,798 6 Mobile Telecommunic	•	US 174,878 3 Nonlife Insurance	US 174,397 2 Pharmaceuticals & Bio	US 168,279.8 Nonlife Insurance	US 168.040.6 Banks	France 167,064.9 Oil & Gas Producers	China 165.510.5 Banks	US 159,589 4 Oil & Gas Producers	UK 156,975.1 Pharmaceuticals & Bix
	•	.,		•	•		Japan				ž	ž	_	•	•	-	•	•	_	•	ygan Chase US 1	France	•	-	

Market value and share price at 30 March 2007

FT Global 500 2007

26	6 30 Nestle	Switzerland	155,345,1 Food Producers	30,888,1	387.7	7,555.8	19.9	22	31/12/2006	
2,	7 25 Roche	Switzerland	154,620.0 Pharmaceuticals & Biotechnology	34,538.8	176.1	6,4738	23.2	1.6	31/12/2006	
<u>۳</u>	8 24 Cisco Systems	SN	154,202.0 Technology Hardware & Equipment	28,484.0	25.5	5.580.0	28.1		29/07/2006	
×	9 40 EDF	France	152,231.4 Electricity	78,584.0	83.5	7,474.1	20.4		31/12/2006	
ĕ	0 21 Novartis	Switzerland	149,691.9 Pharmaceuticals & Biotechnology	36,031.0	57.1	7,175.0	19.2	2.4	31/12/2006	
3	1 26 IBM	SN	141,911 1 Software & Computer Services	91,424.0	94.3	9,4920	15.2	12	31/12/2006	
32	8	ž	140,429.3 Mobile Telecommunications	57,602.3	2.7	43,012.4	-3.9	5.0	31.03/2006	
33		Australia/UK	137,202.1 Mining	32,153.0	24.1	10,450.0	13.9	1.5	30/06/2006	
ઌ	4 34 EN	Italy	129,882.4 Oil & Gas Producers	114,818.4	32.4	12,290.6	10.6		31/12/2006	
ří	5 China Construction Bank	China	128,529.4 Banks		9.0	6,085.5	18.4	0.7	31/12/2005	
98	6 31 UBS	Switzerland	124,489 6 Banks		59 1	10, 154.4	12.4		31/12/2006	
37	7 39 Royal Bank of Scotland	ž	122,534 4 Banks		13.0	12,546.9	3.4	15.2	31/12/2006	
88	8 18 Mitsubishi UFJ Financial	Japan	122, 185.8 Banks		11,264.0	6.540.7	14.2	0.5	31/03/2006	
36	9 28 Sanofi-Aventis	France	117,807.1 Pharmaceuticals & Biotechnology	37,834.5	1.98	5,3419	21.9		31/12/2006	
40	0 36 Wells Fargo	SN	116,325 8 Banks		34.4	8,482.0	13.7	31	31/12/2006	
4	1 China Life Insurance	China	116.280 1 Life Insurance		5.9	1,202.3	63.5	0.2	31/12/2005	
42	2 53 ConocoPhillips	SN	112,374,2 Oit & Gas Producers	183,650.0	68.4	15,550.0	7.0	2.1	31/12/2006	
43	3 49 Santander Central Hispano	Spain	111,228 9 Banks		17.8	8,7769			31/12/2006	
4	4 42 Coca-Cola	SN	111,133 8 Beverages	24,088.0	48.0	5,080 0	22.2	2€	31/12/2006	
45	5 41 Verizon Communications	SN	110,343.0 Fixed Line Telecommunications	88,144.0	37.9	6,1970	17.8	₽.3	31/12/2006	
46	6 33 Intel Corporation	NS	110,322.6 Technology Hardware & Equipment	35,382.0	19.1	5,0440	22.0	2.1	30/12/2006	
47	7 64 Telefonica	Spain	108,088.9 Fixed Line Telecommunications	70,541.9	22.0	8,3115	12.6		31/12/2006	
4	8 45 Hewlett-Packard	SN	107,432.5 Technology Hardware & Equipment	91,658.0	40.1	6,1980	18.0	0.8	31/10/2006	
46	9 52 Wachovia	SN	106,184.9 Banks		55.1	7,791.0	11.7	3.9	31/12/2006	
င္တ	0 48 Petrobras	Brazil	105,876.9 Oit & Gas Producers	76,852.2	253	12,588.1	8.8	35	31/12/2006	
5	1 60 Google	NS	105,421.1 Software & Computer Services	10,604.9	458.2	3.077.4	44.9		31/12/2006	
52	2 44 Pepsico	ns	104,096.2 Beverages	35,137.0	63.6	5.642.0	18.6	1.8	30/12/2006	
23	3 Sinopec	China	104,014 0 Oil & Gas Producers	103,241.6	8.0	5,286.7	13.9	20	31/12/2005	
3	4 79 Unilever	Netherlands	99,543 3 Food Producers	52,861.4	29.0	6,3273	13.2		31/12/2006	
22		Italy	99,003.5 Banks		9.5	3.294.0	19.4	31	31/12/2005	
ኤ	6 35 Samsung Electronics	South Korea	98,908.4 Technology Hardware & Equipment	62,032.6	598.6	8,337.2	10.8	6.0	31/12/2006	
57	7 63 BNP Paribas	France	97,097 6 Banks		1 1 1	9,7450			31/12/2006	
፠	8 161 Intesa SanPaolo	Italy	96,621 6 Banks		9.7	4,033.7	12.1	3.9	31/12/2005	
23	9 65 Merck	SN	95,693.5 Pharmaceuticals & Biotechnology	22,636.0	44.2	4,433.8	21.7	3.4	31/12/2006	
φ	0 58 Siemens	Germany	95,044 0 Electronic & Electrical Equipment	116,445.2	106.5	4,0444	23.0	18	30/09/2006	
0	1 Arcelor Mittai	France	94.062.2 Industrial Metals	88,576.0	52.9	7,973.0	9.5		31/12/2006	

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-	31:12/2006	31/12/2006	31/12/2006	31/05/2006	31/12/2006	31/12/2005	31/12/2005	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	24/11/2006	31/03/2006	30/11/2006	31/12/2006	31/12/2006	31/03/2006	31/12/2006	31/12/2006	31/12/2006	30/09/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/12/2006	31/03/2006	31/12/2006	30,06,2006	31/12/2005	31/12/2006	28/01/2007	
	2.5	42	33		4.8	1.3	0.5					26	2.3	2.1	90	6.0	4.	24		1.0	0.7	3.6			4.0	0.7	4.4	19.8	3.0	2.2	0.5	1.1	11	11	5.8		
	16.2	8.8	13.6	27.9	10.0	13.7	18.2	12.1		8.4	40.9	10.2	13.8	49.8	6.6	16.1	10.7	19.4		17.8	22.0	13.9	22.0	39.4	10.5	8.1	12.5	14.3	10.4	18.1	13.7	12.6	47.2	10.9	16.7	13.1	
	5,741.9	10,257.1	6,743.4	3,381.0	8.971.0	5.840.6	4,159.0	6,780.7	6,315.3	9,305.7	2,113.0	7,4380	6,523.1	1,7168	9,537 0	5,180.9	7,472.0	4.303 1	6.287.3	4,232.1	3,710.0	6.043.0	2.5330	1,989.0	7,016.7	5.652.0	6,186.0	5,410.7	7,612.9	4.202.0	5,515.4	6,5520	2.3140	6.4430	4,271.1	5,761 0	
	22.9	42.1	135.5	181	14.1	204 6	8.4	42.3	24.5	71.4	82.1	56.9	37.3	558	2066	1,946.3	78.8	817	42.9	5,2763	69.1	53.6	26.0	92.9	172.2	50.6	52.5	30.9	20.5	70.1	6.428.1	19.7	23.1	86.4	16.5	36.7	
	54,833.6		85,604.7	14,380.0			23,951.0				9,284.0	22,465.0	21,996.6	22,476.3		40,445.8		202,139.3		91,155.2	19,230.0	26,475.0	24,966.0	19,315.0		16,399.0	33,072.0	23,016.5		47,547.0		44,224.0	25,327.0	55,774.0	81,804.3	90,837.0	
	93,923 8 Technology Hardware & Equipment	93,405 9 Life Insurance	93,240 8 Gas. Water & Multiutibles	93,203.7 Software & Computer Services	92,492.1 Banks	88,989.7 Nonlife Insurance	83,494 7 Oil & Gas Producers	88,427.1 Nonlife Insurance	86,905.4 Banks	86,706.6 Banks	86,487 6 Pharmaceuticals & Biotechnology	86.345 6 Mining	86,144.4 Mining	86,103.4 Pharmaceuticals & Biotechnology	84,999.3 General Financial	84,707.4 Mobile Telecommunications	83,991.0 General Financial	83,666 3 Automobiles & Parts	83,073.5 Banks	83,054 3 Fixed Line Telecommunications	81,437,3 Oil Equipment & Services	81,084.4 Pharmaceuticals & Biotechnology	80,801 4 Media	80,076.8 Technology Hardware & Equipment	79,463 3 Banks	79,390,3 Oil & Gas Producers	77,953.3 Mining	77,328 2 General Industrials	77,166.8 Banks	76,714.8 Industrial Transportation	76,315 8 Banks	75,242.9 Media	74,635 4 Media	73,488 6 Oil & Gas Producers	72,844.9 Fixed Line Telecommunications	72,360 6 General Retailers	
	Finland	Netherlands	Germany	NS	ž	Germany	Russia	France	Spain	Switzerland	SN	Australia/UK	Brazil	Sn	ns	Japan	SN	Germany	Netherlands	Japan	NS	ž	ns	CIS CIS	France	Canada	ž	Saudi Arabia	ž	NS	Japan	Sn	Sn	Russia	Germany	ns	
	62 46 Nokia	¥	64 66 E.ON			67 85 Allianz	68 Rosneft	69 87 AXA		71 84 Credit Suisse	72 51 Genentech	73 61 Rio Tinto	74 117 Vale do Rio Doce			77 8C NTT DoCoMo	78 85 Morgan Stanley	901	80 109 ABN Amro	81 69 Nippon Telegraph & Telephone			84 110 Comcast	_		87 165 EnCana	88 Anglo American		90 92 HBOS	-	-	93 73 Time Warner	94 120 News Corporation		96 75 Deutsche Telekom	97 50 Home Depot	
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278 258 Devon Energy	SN Si	30,916.6 Oil & Gas Producers	10,578.0	69.2	2,8460	10.8	0.7	31/12/2006	
	s so	30,719 1 Havel & Leisure 30,650.2 Banks	5,235.9	80.0 0.04	3.011.0	10.2	2.1	31/12/2006	
281 298 Franklin Resources	SN	30,649.4 General Financial		120.8	1.268.0	24.3	0.	31/12/2006	
282 172 Resona	Japan	30,603.3 Banks		2,634.7	3,252.8	6.6	0.3	31/03/2006	
283 293 Schneider Electric	France	30,490.3 Electronic & Electrical Equipment	18,308.5	126.5	1,745.5	15.9		31/12/2006	
284 204 Millea Holdings	Japan	30,446.1 Nonlife Insurance		36.9	763.5	41.1	6.89	31/03/2006	
	France	30,437.0 Gas, Water & Multiutilities	38,164.4	74.1	1.0117	28.8		31/12/2006	
	South Korea	30,183.2 Banks		7.68	2,600 4	11.6	43	31/12/2006	
287 302 KPN	Netherlands	29,933.8 Fixed Line Telecommunications	15,923.0	15.5	2,110.9	14.7	4.3	31/12/2006	
288 319 Monsanto	Sn	29,871,1 Chemicals	7,344.0	55.0	0.689	42.9	0.7	31/08/2006	
289 271 Commerzbank	Germany	29,836.7 Banks		4.	2,1296			31/12/2006	
290 216 Teva Pharmaceutical Industries	Israel	29,816 8 Pharmaceuticals & Biotechnology	8,408.0	37.5	5460	52.0	60	31/12/2006	
291 227 Canadian Natural Resources	Canada	29,776.9 Oil & Gas Producers	8,981.2	55.3	2,180.1	13.6		31/12/2006	
	Norway	29,729.0 Mobile Telecommunications	14,957.1	17.7	2,611.0	11.4	23	31/12/2006	
293 316 Liberty Media	SN	29,699.5 Media	8,613.0	23.8	3400	32.6		31/12/2006	
294 274 Husky Energy	Canada	29,664 6 Oil & Gas Producers	10,938.5	6.69	2.3546	12.6	19	31/12/2006	
295 Natixis	France	29.570.2 Banks		24.2	926.8	1.2	27.5	31/12/2005	
296 262 Alcoa	ns	29,519 8 industrial Metals	30,379.0	33.9	2,2480	13.1	1.8	31/12/2006	
297 349 Westfield Group	Australia	29,501 3 Real Estate		166	4,509.6	6.5	5.2	31/12/2006	
	sn	29,501 2 Banks		83.0	2,117.5	14.1	29	31/12/2006	
299 363 TXU	sn	29,439.1 Electricity	10,856.0	64.1	2.552.0	11.5	2.6	31/12/2006	
300 125 Seven & I Holding	Japan	29,424 5 Food & Drug Retailers	29,171.2	30 4	746.2	35.5	0.8	28/02/2006	
301 291 Cheung Kong	Hong Kong	29,314 3 Real Estate		12.7	2,313,2	12.7	22	31/12/2006	_
302 Air Liquide	France	29,288.5 Chemicals	14,599.8	242.9	1,336.5	21.8		31/12/2006	
303 219 Cardinal Health	SN	29,201 5 Food & Drug Retailers	81,363.6	730	1,000.1	30.7	9.4	30/06/2006	
304 212 EMC	sn	29, 197.5 Technology Hardware & Equipment	11,155.1	13.9	1,224 0	25.6		31/12/2006	
305 283 Richemont	Switzerland	29,054 2 Personal Goods	5,744.6	55.7	1,4588	21.1	26	31/03/2006	
	ns	28,871.1 Industrial Transportation	14,985.0	804	1,887.0	15.4	1.1	31/12/2006	
	ž	28,861.3 Aerospace & Defense	24,204.8	0.6	3.210.8	9.1	2.7	31/12/2006	
	SN	28,835.3 Industrial Engineering	14,055.1	51.6	1,717.7	17.0	1.5	31/12/2006	
309 297 Sun Hung Kai Properties	Hong Kong	28,827.1 Real Estate		11.6	2,540.4	11.0	2.4	30/06/2006	_
310 245 Viacom	ns	28,451.6 Media	11,466.5	41.1	1.592.1	18.4		31/12/2006	
	ns	28,448.0 Oil & Gas Producers	10,187.0	43.0	4,8540	7.1	0 8	31/12/2006	
	India	28,408 1 Electricity	6,169.1	3.5	1,335.3	21.3	19	31/03/2006	
313 353 DirecTV	ns	28,366.7 Media	14,755.5	23.1	1,420.1	20.4		31/12/2006	

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350 252 Applied Materials 351 410 Heineken	US	25,590 7 Technology Hardware & Equipment 25,541 7 Beverans	9,167.0 15,773.6	18.3	1,516.7	18.7	1.0	29/10/2006
	Sn	25,506.9 Gas, Water & Multiublibes	15,184.0	203	1,863.0	11.7	6.2	31/12/2006
353 348 Power Financial	Canada	25,423.5 Life Insurance		33.8	1,861.4	13.2	5.6	31/12/2006
	Japan	25,421.1 Travel & Leisure	12,455.3	11,348.7	1,039.1	24.5	0.5	31/03/2006
355 328 BCE	Canada	25,402.3 Mobile Telecommunications	15,299.5	28 3	1,733 5	14.6	4 0	31/12/200ē
356 ThyssenKrupp	Germany	25,367.6 General Industrials	62,839.7	49.3	2,190.9	11.4	2.7	30/09/2006
	Canada	25,360.3 Technology Hardware & Equipment	2,065.8	136.5	382.1	9.79		04/03/2006
	SN	25,299.3 Electricity	15,710.0	61.2	1,281.0	18.8	25	31/12/2006
359 469 MTN Group	South Africa	25,265.3 Mobile Telecommunications	3,726.6	13.6	803.3	28.1	6.7	31/12/2005
360 195 EADS	France	25,227.9 Aerospace & Defense	45,612.7	30 9	2,2349	11.0	23	31/12/2005
361 417 Holcim	Switzerland	25,213.4 Construction & Materials	19,691.7	2.66	1,728.5	14.0	16	31/12/2006
362 National Bank of Greece	Greece	25,117.7 Banks		52.9	6 696	1.61	15	31/12/2005
388	SN	25,026.8 Banks		72.0	2,595.0	8.1	30	31/12/2006
423	Spain	24,981 1 Banks		20.6	1.368.2	18.3	24	31/12/2006
365 411 Simon Property	SN	24,804.2 Real Estate		111.3	563.8	50.6	2.7	31/12/2006
369	Japan	24,767.9 Industrial Metals	13,177.6	5.2	1,877.7	13.2	1.2	31/03/2006
403	Sn	24,689.5 Nonlife Insurance		45.4	2.074.9	12.1	0.5	31/12/2006
368 341 Barrick Gold	Canada	24,665 1 Mining	5,636.0	28 6	1,5060	15.9		31/12/2006
369 412 Deere	SN	24,645.4 Industrial Engineering	22,058.8	108.6	1,6938	17.2	4	31/10/2006
416	sn	24,601 5 General Retailers	15,544.2	9.97	1,108.7	22.9		03/02/2007
	Sn	24,538 6 Software & Computer Services	2,575.3	417	5058	49.1		61/12/2006
372 337 Erste Bank	Austria	24,469 2 Banks		977	1.243 1			31/12/2006
373 276 Costco Wholesale	Sn	24,352.6 General Retailers	60,151.2	53.8	1,1032	22.9	60	03/09/2006
	Japan	24,263.5 Pharmaceuticals & Biotechnology	7,462.7	43.0	879.7	27.6	1.4	31/03/2006
375 457 CBS	SN	24,015 8 Media	14,320.2	30.6	1,660 5	16.9	2.4	31/12/2006
376 335 Archer Daniels Midland	SN	23,955.2 Food Producers	36,596.1	36.7	1,312.1	18.3	55	30/06/2006
377 270 Transocean	sn	23,935 5 Oil Equipment & Services	3,882.0	81.7	1,3850	18.5		31/12/2006
378 Freeport-Mcmoran Copper & Go US	so us	23,763.G Mining	5,790.5	66.2	1,456.5	0.6	7.2	31/12/2006
379 209 Samba Financial	Saudi Arabia	23,678.4 Banks		39.5	1,389.2	17.1	23	31/12/2006
	SN	23,658.8 General Retailers	26,970.0	45.1	995.0	24.9		03/02/2007
	Japan	23,617 9 General Financial		260 0	1,4121	16.3	03	31/03/2006
	SN	23,556.2 Banks		37.3	2,299.8	6.6	4	31/12/2006
383 240 Starbucks	SN	23,550.0 Travel & Leisure	7,786.9	31.4	564.3	42.4		01/10/2006
	SN	23,479.5 General Retailers	30,848.0	48.7	1,140.0	20.9	90	25/02/2006
385 372 Raytheon	Sn	23,407 3 Aerospace & Defense	20,291.0	52.5	1,2830	18.1	- 8	31/12/2006

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386 343 Apache	SN	23,398.7 Oil & Gas Producers	8.115.2	70.7	2,552.5	9.2	0.7	31/12/2006
387 34ê Capitalia	Italy	23,379.1 Banks		0.6	1.550.1			31/12/2006
388 330 Charles Schwab	ns	23,191.5 General Financial		18.3	1,227.0	18.9	0.7	31/12/2006
389 325 Aflac	ns	23,147.7 Life Insurance		47.1	1,483.0	15.7	12	31/12/2006
390 464 Metro	Germany	23,084.3 General Retailers	79,650.8	9.07	1,408,1	16.4	2.1	31/12/2006
391 404 CRH	ireland	23,083.3 Construction & Materials	24,985.8	42.6	1,613.8	14.2	18	31/12/2006
392 Petroleos (Cepsa)	Spain	22,991.9 Oil & Gas Producers	27,612.4	628	1,082.3			31/12/2006
393 Deutsche Boerse	Germany	22,890.8 General Financial		228.3	891.7	25.4	2.0	31/12/2006
394 452 Accenture	ns	22,877.1 Support Services	18,228.4	38.5	973.3	23.4	0.3	31/08/2006
395 Brookfield Asset Management	Canada	22,673 2 Real Estate		52.3	1,1700	17.8		31/12/2006
396 251 Aetna	Sn	22,613.2 Healthcare Equipment & Services	25,145.7	43.8	1,701,7			31/12/2006
397 296 Canadian National Railway	Canada	22,604 2 Industrial Transportation	6,664.7	4	1,302 6	12.9	1.3	31/12/2006
398 486 Marks & Spencer	ž	22,548 2 General Retailers	15,303.8	13.3	1,026 6	21.5	2.3	01/04/2006
399 467 Daiichi Sankyo	Japan	22,472.1 Pharmaceuticals & Biotechnology	7,857.9	30.6	744.2	30.1	0.7	31/03/2006
400 435 Sumitomo	Japan	22,454.2 Support Services	21,907.3	18.0	1,359.9	16.2	1.2	31/03/2006
401 282 Alltel	ns	22,352 6 Mobile Telecommunications	7,884.0	62.0	1,1294	21.0	1.7	31/12/2006
402 352 McGraw-Hill	ns	22,318.4 Media	6,255.1	62.9	382 2	25.5	1.2	31/12/2006
403 317 Fanuc	Japan	22,252.0 Industrial Engineering	3,234.0	92.6	767.5	26.1	6.0	31/03/2006
404 354 BB&T	Sn	22,232 3 Banks		41.0	1,5280	14.4	3.9	31/12/2006
405 DBS Group	Singapore	22,137.1 Banks		14.1	1,495.3	11.4	4.3	31/12/2006
406 428 Pernod-Ricard	France	22,088.5 Beverages	8,088.8	202.1	852.1	20.1	1.7	30/06/2006
407 394 Danaher	Sn	22,085.2 Electronic & Electrical Equipment	9,596.4	71.5	1,122.0	19.6	0.0	31/12/2006
408 420 Mitsubishi Electric	Japan	22,076.7 Industrial Engineering	30,587.1	10.3	812.1	27.1	0 7	31/03/2006
409 421 Christian Dior	France	22,013 7 Personal Goods	21,356.8	121.1	1,0628	20.7		31/12/2006
410 488 Shinhan Financial	South Korea	21,905.8 Banks		57.4	1,927.8	11.4		31/12/2006
411 448 SEB	Sweden	21,860 3 Banks		31.9	1,804 2	11.9	2.7	31/12/2006
412 493 Mitsubishi Heavy Inds.	Japan	21,771 9 Industrial Engineering	23,695.4	6.5	2530		0.5	31,03/2006
413 Telkom	Indonesia	21,761.7 Fixed Line Telecommunications	4,581.5	=	8760	24.9	2.2	31/12/2005
414 344 Woodside Petroleum	Australia	21,728.5 Oil & Gas Producers	2,915.9	31.9	1,152.6	18.2	3.2	31/12/2006
415 Entergy	Sn	21,703 9 Electricity	10,932.2	104.9	1,1326	19.2	2.1	31/12/2006
416 Akzo Nobel	Netherlands	21,654 7 Chemicals	18,317.9	75.7	1,537 5	14.1	2.1	31/12/2006
	ns	21,640.5 Technology Hardware & Equipment	13,068.0	0.9	-864.0	-24.0		30/06/2006
418 374 State Street Corporation	ns	21,616.5 General Financial		64.8	1,106.0	19.4	1.2	31/12/2006
	sn d	21,599.9 Electricity	12,164.0	83.0	739.0	29.2	27	31/12/2006
338	ns	21,591.6 Banks		38.7	1,188.0	18.1	4.1	31/12/2006
421 QBE insurance Group	Australia	21,561 7 Nonlife Insurance		25.5	1.1979	16.9	3.0	31/12/2006
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<u>4</u>	Lincoln National	ns	18,801 9 Life Insurance		8 2 9	1,3160	13.0	23	31/12/2006
495	427 DnB NOR	Norway	18,791.2 Banks		141	1,665.9	11.3	4.1	31/12/2005
496	495 Continental	Germany	18,784.1 Automobiles & Parts	19,851.4	128.8	1,309.3	14.4	2.1	31/12/2006
497	Sainsbury (J)	Ş	13,775.0 Food & Drug Retailers	31,521.3	108	125.6		1.6	25,03/2006
496	380 Omv	Austria	18,732.3 Oil & Gas Producers	25,296.4	62.8	1,843.7	10.1	2.2	31/12/2006
	419 Chunghwa Telecom	Taiwan	18,726.8 Fixed Line Telecommunications	5,545.3	1.9	1,441.0	13.0	67	31/12/2005
2000	500 430 Wipro	eibul	18.692.9 Software & Computer Services	2.423.9	12.9	472.6	38.2	60	31/03/2006