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'Putting Your Money Where Your Mouth Is' A Profile of Ethical Investors

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This research sought to determine why people chose to invest in Earth Sanctuaries Limited (ESL), which conserves ecosystems and breeds endangered species as its corporate mission, an unequivocally ethical objective. Investors were surveyed to assess the relative importance of financial versus ecological considerations. Demographic and investor behavior attributes of ESL shareholders were compared with those of Australian shareholders as reported by an Australian Stock Exchange survey. The results showed that the environmental mission of ESL took pre-eminence over financial considerations for these investors. Comparison of the two groups revealed significant differences in most variables.

Reflecting the shift in societal values, ethical or social investment has emerged in finance and accounting in the last decade as a topic of research concern. Ethical investment has been known by alternative nomenclature, including environmental, 'green' and socially responsible investment (SRI). The term 'ethical' tends to be used in the U.K. and Australia whilst the latter terminology tends to be used principally in the U.S. Both terms appear to suggest that underlying values are fixed, non-controversial and unequivocal. This, however, is not the case. The additional dimension which is necessary for a commercial venture to be seen as an ethical investment is contentious and varies between individuals.

To avoid the implication of absolutism, the U.K.-based Ethical Investment Research Information Service (EIRES), an independent research organization, suggests that ethical investment means making investments which reflect the investor's values. Ethical investments thus have characteristics which allow investors to integrate their personal values and social concerns with their investment objectives. Thus, businesses actively supported by such investments ('investees') operate in industries or carry out activities of which the investors approve and want to support. Entine (1997) has taken a more hard-line approach and has suggested somewhat scathingly that investees are organizations with a social agenda, as if that were a shameful motivation. Knowles (1997), on the other hand, regards ethical businesses as those which try to improve society.

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I. INVESTMENTS AVAILABLE TO ETHICAL INVESTORS

Ethical investors interested in putting their funds to work in companies of which they approve are rather limited in the scope of activities and number of investees. Additionally, the lack of ready information about all of the activities of corporations is a constraint to investment. Investors may invest directly in the primary or secondary market when they find a company of which they approve, they may use the growing number of investment brokers who offer a service in screening the corporate world for likely ethical investments, or they may invest in trust funds especially set up to attract the ethical investor.

Warren, Stevens, and McConkey (1990, p. 74) state that "little empirical research exists concerning individual investment behaviour." The motivation of ethical investors investing directly or through the activities of investment brokers has received even less attention in the literature. After investigating the factors that led to the exclusion of stocks from individual's ethical shareholdings, Anand and Cowton (1993) identified the need for research into the demographic characteristics of ethical investors.

Ethical investment as an identifiable and discrete force in financial markets has tended to be referred to as investment in specialist trust funds, which are managed by professional funds managers to reflect supposed ethical concerns and to provide a service to ethically concerned investors. 'Supposed' is used advisedly, because trust managers can only respond to what is thought to be important in the market, devise a new trust, open it to the public, advertise it and see what happens. The trust funds which reflect investors' needs will grow and be successful; the less well focussed will wither and close. The situation is analogous to the futures market where well traded and popular contracts survive and the less well traded are eventually withdrawn.

To gain some guidance for their ventures, funds managers undertake market research so that they can devise portfolios which have a reasonable chance of success in attracting funds. Australian Ethical Investment Ltd (AET), the only Australian funds manager operating exclusively in the SRI markets, for example, undertook such a survey for the 1996–1997 period. AET found that environmental concerns were high in priority for Australian ethical investors. The issues with highest priority were proactive rather than reactive in nature, being environmental protection, sustainable land use, forest logging/woodchipping, reafforestation, and efficiency of energy and resource use. Of lesser importance, but still of concern, was the screening out of armaments, repressive regimes, unfair work practices, uranium and nuclear industries, and racism and discrimination (AET, 1997a).

One of the problems encountered by funds managers is finding enterprises which meet their portfolio design criteria. Apart from ethical issues, funds managers generally want optimal return with acceptable risk, so that they can attract investment funds. Because it is easier to analyze the activities of small companies, funds tend to flow to smaller companies where ethical qualities are more evident (AET, 1997b; Cullis, Lewis, & Winnett, 1992). Additionally, larger corporations are often involved in a multitude of activities where an ethical tradeoff is required (AET, 1997b; Cullis, Lewis, & Winnett, 1992). Do the 'good' activities outweigh the ethically unacceptable? Are the corporation's activities *on balance* ethically acceptable? Moreover, trust managers are often forced to invest in suspect larger firms in order to increase the return and reduce the risk on invested funds.

To a large degree, ethical investors rely on the judgement of funds managers and their supposedly superior information as to the ethical acceptability of investee firms. However, the decisions of managers may not in reality reflect the value framework of individual

investors. Lists of investments held by Australian ethical trusts (Cummings & Burritt, 1997, for example) include a surprisingly high number of mining companies and petroleum explorers. Investors take portfolio decisions made by their funds managers on trust until evidence, one way or the other, becomes available.

Trust fund managers, hoping they are correctly interpreting the motivation of ethical investors, advertize their products with calls to boycott enterprises 'which harm our world' (HTR Ethical Fund) and with talk of 'the moral obligation of our generation to guard the heritage of the earth' (Scottish Equitable Ethical Trust). Thus, ethical funds managers hope to succeed by providing appropriate services which meet the needs of investors to support businesses which reflect their individual values. Additionally, whether ethical investors are a subset of the same group as 'ordinary' investors has not been investigated. How do the characteristics of ethical investors compare with the attributes of 'ordinary' investors, for example, those holding shares listed on the Australian Stock Exchange? This exploratory research aims to shed some light on these questions.

II. THE SELECTED CORPORATION

Because trust funds support a wide range of business activities, not all of which may be totally acceptable to all individual investors, the design for this research called for a focused, unequivocally ethically acceptable corporation to provide a population of undeniably ethical investors. The selected corporation also had to be publicly owned, so that a valid comparison of shareholders could be made with the Australian shareholder population. One of the few corporations in Australia to qualify is Earth Sanctuaries Ltd (ESL). Because this corporation is involved with nature conservation, environmental protection and sustainable land use, the issues of apparently highest concern to ethical investors, it was the obvious candidate for selection for the study.

ESL is Australia's only public nature conservation company. Its core business is nature conservation and, as nature conservation is generally a non-market good, it employs the demand for tourism goods and services as a tool to generate revenue and a market return. The corporation aims to conserve Australian indigenous animals, plants and ecosystems within a commercial environment with minimal financial risk to stakeholders, and to develop sanctuaries in the most important ecosystems. It aims within 10 years to have 20 of Australia's most endangered animals including woylies, bilbies, boodies, potoroos and pademelons (all species of small arid-zone kangaroos) living and breeding successfully within its securely fenced sanctuaries. Also within its mission are education, interpretation to visitors and consultancy services. Directors of ESL believe that the various government agencies charged with care of the Australian natural environment lack vision, and that better leadership is required. The corporation attempts to provide that leadership (ESL, 1997).

The corporation currently controls and is developing five sanctuaries, some of which are large, even by national park standards. The key to conservation within the sanctuaries is seen to be the elimination and exclusion of feral cats, pigs, goats and foxes, which have devastated the populations of many small mammals, marsupials and birds, and perhaps driven some to extinction. Whilst the erection of many kilometres of vermin-proof fencing is capital-intensive and a major financial undertaking, it is this commitment which differentiates the activities of this corporation from other nature conservation efforts in Austra-

lia, especially government initiatives. Governments generally appear willing to commit land resources, but unwilling to provide the necessary funds, nor establish the market mechanisms, which would allow properly-resourced management of parks (Beal, 1996).

ESL was started by Dr. John Wamsley (PhD in Mathematics) on a small degraded former dairy farm by replanting local floral species. The land area controlled by ESL has been successively increased to more than 200 000 acres, principally in arid zones. The entity became a public company in 1993 and, in order to facilitate capital formation and trading, intends to list in the near future. When this research was being planned in October 1997, there were about 1600 shareholders. This number has increased daily, so that there were 1650 in late November, and nearly 2300 by the end of June 1998. The founding family and directors held about 60% of the company, superannuation and public trustee companies held about 8%, and individuals and private companies held about 32% at June 30, 1998 (www.esl.com.au).

Expansion of the company has been achieved through the issue of shares under conditions laid out in prospectuses approved by the Australian Securities Commission. The prospectuses have been made available through stockbrokers and at the sanctuaries. Additionally, ESL has maintained a comprehensive web site, www.esl.com.au, which contains a copy of the current prospectus, and has attracted both Australian and overseas investors. Shares were issued in 1993 at $0.75; the issue price has progressively increased so that the price in 1998 has been $1.50. A small proportion of the issued shares find their way to the secondary market and have generally sold at about $1.20.

ESL is in a strong position financially with about $10 million in assets and $250,000 in liabilities at June 30, 1997. Operating profit after tax for 1996–1997 was about $100,000 of which 67% was paid out. A dividend of 0.4 cents per share, fully franked for paid company tax, was paid in that year (Australia has a dividend imputation system where shareholders are credited with the tax paid by the company on their share of paid-out profits; this tax credit then reduces liability for personal income tax.) Dividend yield was 0.33%.

Some may suggest that ESL shareholders are in fact not 'real' investors, but donors. It could be argued that issuing shares is an innovative way to attract donations. Contraindications to this proposition include: the existence of both a separate charitable foundation which receives donations to further the conservation work of the firm and a secondary market in the shares (donations are non-tradeable); quite substantial minimum purchase requirements for primary share issues; investor interest in financial stability and the corporation's plan to float shortly on the ASX. In addition, several public trusts and institutional investors hold shares when legal requirements for trusts in Australia prevent charitable donations on the behalf of beneficiaries.

The first objective in this research was to identify the primary reasons private individual investors are willing to place money in a company that has openly constrained the traditional objective of wealth maximization by the objective of nature conservation. Drawing the sample from existing shareholders of ESL was expected to capture a subset of investors who are most highly motivated by ethical considerations. As an unlisted company, ESL's shares are not exchange traded. Even though a secondary market exists for the shares, the relatively low liquidity indicates that ESL investors are more likely to view their shares as longer term investments and less likely to be motivated by short term gains.

III. ETHICAL INVESTMENT RESEARCH

Ethical investment research over the last decade or so has included the examination of both the positive and negative portfolio design criteria given in trust investment policies, comparison of the rate of return from ethical trusts with that of 'ordinary' investment portfolios, ethical investment as an agent of social change and corporate social disclosure (CSR). Rockness and Williams (1988) found a broadly similar set of issues concerning ethical investors in the U.S. as was identified for Australian investors by the AET. The 1997 Report on Responsible Investing Trends in the United States (Social Investment Forum, 1997), however, found that tobacco screens were used by over 97% of ethical funds, while environmental screens were used by only 37%. The increased relative importance of tobacco as a concern for responsible investors in the U.S. should be viewed in the light of the recent success of legal actions against tobacco companies. The U.S. funds may have been motivated more by the threat of declining tobacco companies' share prices than a change in ethical focus.

After investigating trusts' portfolio selection criteria, Perks, Rawlinson, and Ingram (1992) reported that U.K. ethical investment trusts consistently maintained that they avoided supporting tobacco and alcohol companies, armaments manufacturers and dealers, gambling, repressive political regimes, the nuclear industry and various aspects of animal exploitation including animal experimentation, chemical testing and wild animal products. On the other hand, trusts encouraged firms which had enlightened employee policies and conditions, supported their communities and protected the natural environment. Dunham (1990) identified acid rain, pollution of beaches and rivers and nuclear accidents as the main concerns for those British investors who have an environmental focus. British ethical investors have a somewhat different focus from their Australian counterparts. It is to be expected that different geographic localities, societies and business environments will produce divergent ethical concerns.

Perks, Rawlinson, and Ingram (1992) were interested in how investors can force change upon companies so that their behavior becomes less exploitive and more sustainable. Given that funds managers such as pension funds, insurance companies and trusts manage the majority of listed capital and that this is a highly competitive market where short-term rates of return determine investment managers' perceived success, they theorized that university investors would perhaps be the most likely group of investors where social responsibility would be apparent in making investment decisions. Accordingly, they investigated universities' investment policies and found half the respondents said they considered ethical issues in making investments. However, further investigation revealed that in fact the university investment managers did not have a firm ethical foundation for their decisions. The only investment they sought to exclude consistently was anything connected with South Africa (governed by a high profile repressive regime at the time) and they used their investment powers to support nothing in particular. If universities, which are generally thought to be the residence of liberal thinkers, cannot lead investment towards desirable social goals and institutional investors are unlikely to take a strong leadership role, then questions are raised as to the identity of social investors, their characteristics and motives.

Dividends, expected returns and the firm's financial stability have been identified in the extant literature (Baker & Haslem, 1974) as critical considerations for the individual investor's investment decision. Perceived risk and diversification needs are identified by

Nagy and Obenberger (1994) as 'traditional' considerations. The notion that 'you can make a difference' in addition to making financial gains can be heady stuff to the ordinary citizen. Marketing material often says that ethical trust funds can help to change business practice. Yet, the reality is that funds managers typically do not invest in corporations which cannot meet their criteria, or they sell holdings in companies when they become aware of unacceptable practice. AET notes 'when...ethical parameters stray from preconceived courses, the decision to divest or sell the assets may be made' (AET, 1997a, p. 2).

Arnold and Hammond's (1994) analysis of the South African divestment movement found the social investment funds were slow to adjust portfolio composition in the face of increasing criticism of the Sullivan Principles, which set minimum ethical standards for U.S. companies operating in South Africa. In relation to 13 U.K. funds, EIRES found funds managers mostly do not attempt actively to influence company policy or practice (EIRES, 1989). Avoiding or selling a small holding in a corporation is unlikely to change the share price significantly nor to affect it for more than a few days. Thus, divestment policies are unlikely to force change upon affected corporations.

The marketing material of ethical trusts typically emphasizes that the returns from ethical investment are as good as those from 'ordinary' portfolios (DEI, 1998). In other words, 'you can gain comparable financial rewards and influence the business world and society as well, with no cost to yourself.' Funds managers are in business to attract funds. The financial markets cynic would have to ask whether it's true that investors can increase the number of their investment goals and still achieve them all without some decrease in the quality of the achievement of some or all of them. Moore (1988) doubted that ethical trust managers, seeking to maximize returns within a reasonable risk framework, can exercise responsible share ownership and fall within the definition of ethical investors.

Luther and Matatko (1994) reported returns from ethical trust funds broadly matched the returns of the whole market. Constructing portfolios from 159 listed U.S. firms on various ethical screens, Diltz (1995, p. 77) concluded that, "taken as a whole, the evidence regarding the effects of ethical screening reveals no overwhelming impact." Looking at specific screens, Diltz found some evidence to support a favorable market attitude toward good environmental performers. Using a sample of unit trusts in the U.K., Mallin, Saadouni, and Briston (1995) found that ethical funds tended to outperform non-ethical funds on a risk-adjusted basis. However, they concluded that the overperformance was weak and may have been specific to the time of their study. The evidence does not, therefore, provide conclusive support for excess returns on ethical investments. Guerard (1996) found no statistical difference between socially screened and unscreened stocks for the 1987–1994 period. He concluded that returns are more dependent on manager performance than on social screening.

Corporate social responsibility is an emerging area of concern in the accounting literature, with a major theme being whether corporations conducting their operations with a social conscience are rewarded with economic advantage. The link between CSR and ethical investment is of course that funds managers and individual investors must have relevant and accurate information before an investment can be effected (Domini & Kinder, 1984). Perforce, investors place heavy reliance on annual reports for information, and generally they prove inadequate (Perks, Rawlinson, & Ingram, 1992; Rubenstein, 1992). The current adequacy of CSR is clearly a constraint to effective ethical investment.

Keim (1978) argued that wealth maximization motives of the firm and social responsibility activities can be consistent. Bruyn (1987) set himself the mammoth task of trying to develop a conceptual foundation and body of theory for social investment. Essentially, Bruyn's theory rests on the fundamental proposition that social investors are committed to economic development and optimal financial returns, given that social and economic values are maximized jointly. Owen (1990) was severely critical of this approach. Owen has major reservations that social investment can be at all congruent with the tenets of the resurgent free market philosophy currently enjoying supremacy globally. Similarly, after highlighting socially damaging examples of the consequences of the "obsession with shareholder wealth," Beaver (1995, p. 53) states that the "process of developing a more ethically based shareholder mentality will take time."

In essence, the prior literature has revealed that ethical concerns vary across national borders, and this can limit the ability of some studies to be generalised. The potential tradeoff of risk, return and socially responsible behavior means that ethical funds managers cannot guarantee that issues of importance to each individual investor are anticipated in their investment decisions. This research contributes to the existing literature by giving attention to the motivations of individual shareholders acting to increase their own utility.

IV. DATA COLLECTION

In addition to the objective of conducting exploratory research in an area little investigated, a second objective was to compare some characteristics of ESL shareholders to those of the Australian shareholder population. The ASX conducted a comprehensive survey of Australian shareholders in 1997 to assess some aspects of their investment behavior and demographic characteristics. The sample size of 2400 and the contemporaneity of the ASX survey suggested that it could be used as a suitable base for the assessment of the Australian shareholder population.

A. Selection of the Sample

At the time the sample was being selected, there were about 1650 shareholders of ESL. On the basis that about 300 responses would be necessary for statistical reliability, it was decided to send out about 800 questionnaires, in the expectation of a slightly better than usual response rate than is normally achieved by postal surveys.

As the focus of this research is on individual investors, corporations holding shares in ESL were not included in the sample. Names of shareholders resident overseas were also omitted from the shareholder list for comparability to the ASX survey. Additionally, Dr Wamsley and identifiable members of his family were not included in the survey. The sample was chosen by selecting every second name on the shareholder list, after the initial selection of the shareholder corresponding to a randomly selected number between 1 and 10 (Ray & Ravizza, 1988). This method can be expected to be more efficient than simple random sampling, because it allows the selection of a spread of shareholders from the earliest through to the latest. The sample selection process produced a sample of 825 Australian shareholders.

TABLE 1
Investors' Reasons for Holding Shares in ESL

Reason for purchasing ESL shares	*Number of respondents*	*Not considered (%)*	*Considered unimportant (%)*	*Considered important (%)*
Conservation of endangered animals	692	0.1	.02	97.3
Help to save endangered ecosystems	689	0.6	0.7	95.1
Conservation of endangered plants	678	2.7	1.7	88.3
Provision of sanctuaries	647	6.5	2.9	77.9
Help protect ecosystems	633	7.1	5.4	70.7
Provision of educational services	637	10.8	12.1	52.6
Financial stability of ESL	589	16.3	25.0	35.3
Provision of recreational services	622	16.9	29.9	25.6
Share price (capital) growth	617	16.6	39.4	20.3
Portfolio diversification	608	38.8	37.4	9.9
Dividends	580	28.6	56.6	3.8

Note: The row total percentages are less than 100, because the score 3 responses are not included here.

B. Development and Administration of the Questionnaire

The questionnaire comprised 19 questions printed on three panels of a single folded A3 sheet of paper. An introductory letter written on University letterhead with an ESL logo pasted to the top right corner was included as the first panel on the sheet. The letter invited shareholders to participate in the survey. The instructions placed at the top of the survey indicated that any or all parties involved in shareholdings in joint names could complete the survey. Respondents were guaranteed anonymity.

Fourteen of the questions were derived from the ASX survey. These were used to determine demographic details and investor behavior characteristics. The remaining questions were exploratory in nature and sought to determine why conservation was important to investors. One question investigated the reasons respondents invested in ESL. This question offered eleven possible reasons (see Table 1) and asked respondents to rank importance on a five-point Likert scale. The possible reasons proffered included financial attributes drawn from the investor behavior literature and some key stated objectives of ESL as identified from prospectuses and annual reports. One further question asked respondents to use a Likert scale to rate their perceptions of the security of their investment in ESL.

During the design phase, the questionnaire was pilot tested with colleagues and shareholders of other corporations. Valuable suggestions were made about the phrasing of questions and layout, and amendments were made in line with these suggestions. The data collection design included a double mailing in order to maximize the response rate. The use of a follow-up survey also provided the opportunity to assess any potential sources of nonresponse bias. Survey forms in the first mailing were posted on 2 December 1997, and the second mailing was made on 17 December. Respondents were requested to return the completed surveys within one week. A free-post return envelope was enclosed with each mailing.

Of the 825 survey instruments posted out, 715 were returned, 615 or 74.5% from the first mailing and 100 or a further 12.1% from the second mailing, giving an 86.6% response rate. Some joint shareholders availed themselves of the opportunity to complete

their survey as individuals, bringing the total number of responses to 739. The response rate was greater than 80% from shareholders living in all states, except South Australia where it was 75.7%.

Mail surveys rarely achieve response rates of 80 to 90 percent (Zikmund, 1997). We attribute the abnormal response rate to the inherent characteristics of the individuals who are ESL shareholders. By "putting their money where their mouths are," these people display their commitment to the environment. This research allowed ESL shareholders to have their say on issues important to them. A contributing factor to the high response rate might also be the unusually high representation of postgraduates in the ESL shareholder population. These people are likely to be sympathetic towards research efforts. As the survey's response rate far exceeded the accepted minimum of a 50% response rate necessary for reliability (Cryer & Miller, 1991; Zikmund, 1997), possible sources of non-response bias were considered *a priori* to be negligible.

V. RESEARCH FINDINGS: REASONS FOR INVESTING IN ESL

The survey sought to determine why ESL shareholders had invested in the company. Five point Likert scales were used to assess the importance of eleven factors in the investment decision. Table 1 identifies these factors and shows the number of responses to each question. The second column shows the percentage of respondents who indicated that they had not considered that particular factor. The third column provides the percentage of respondents who rated the factor as unimportant (scores of 1 and 2 on the scale). The final column indicates the percentage of respondents who considered the factor to be important (scores of 4 and 5 on the scale). Respondents were invited to report any other reasons for their purchase of the company's shares.

Financial returns were not the primary motivating factor behind the investment decision of the vast majority of respondents. Conservation of animals, plants and ecosystems were considered to be highly important. Of those who answered question on the importance of the financial stability of ESL, 35.3% rated this factor as 'important' or 'very important,' while 16.3% had not considered financial stability at all when making the investment decision. Capital growth was rated highly by 20.6%, while only 3.7% rated dividends highly. Approximately three-quarters of respondents either did not consider portfolio diversification or considered this factor to be unimportant reason for making the decision to invest in ESL. These results are in stark contrast to the importance placed on financial indicators by members of the Australian Shareholders' Association and investment analysts (Deegan & Rankin, 1997).

As previously mentioned, respondents were encouraged to identify any other reasons for their investment decision. The most frequent response in this section was an admiration for the work of Dr John Wamsley, the founder of the company. The fact that investors considered ESL to be an "ethical" investment was also a recurring reason. Other reasons included "putting your money where your mouth is," "for future generations" and "eradication of ferals." Many investors were encouraged by the success ESL was achieving in the area of conservation, especially when compared to government achievements. Others liked the idea of private enterprise conservation activities.

VI. COMPARISON OF ESL INVESTORS WITH THE AUSTRALIAN ASX INVESTOR POPULATION

Visual inspection of the data suggests that typical ESL shareholders are more likely to be female than typical ASX shareholders, educated to a tertiary level and more likely to post-graduate degree level. They are professionally employed or retired, likely to have a lower household income, high household assets and a share portfolio containing more than 11 stocks.

Two tables which summarize the responses received are provided. Demographic characteristics are presented in Table 2 and investor behavior characteristics in Table 3. Some respondents in our sample were under eighteen years old and one adult (while giving an Australian address) was not an Australian resident. These people were excluded from comparison with ASX data as it relates only to Australian adults. ESL shareholders were generally more forthcoming in their response rates to individual questions than were the shareholders in the ASX survey. To facilitate meaningful comparisons, the relative percentages of those responding to these questions rather than the percentages of those surveyed have been used.

The data collected were either categorical or ordinal by nature. Such data do not support the assumptions of parametric testing. Seigel (1956) states that nonparametric tests are more powerful in such circumstances, with the power of the tests increasing as sample size increases. Thus, Chi-squared testing was chosen as the means of testing for independence of the two samples. The relatively high levels of non-response to the household assets and household income questions in the ASX survey indicate that our results for these variables should be interpreted with caution. We are unable to draw any inferences on the distribution of non-respondents for the ASX survey as we only have access to the results of their study and not to their raw data.

Using the standard significance level of five percent, most of the demographic characteristics and all of the investor behavior characteristics were significantly different between the two samples. Only marital status (which was included to complete the replication of the ASX data) could be considered to be undifferentiated between the samples.

One startling difference lies in the usage of broker services. The Australian Share Ownership Survey (ASX, 1997) revealed that 86% of shareholders use the services of a broker to some extent. As ESL is an unlisted public company, it was not expected that brokers would be an important source of information, and this expectation was supported by the survey findings that 2.5% of the sample received a recommendation on the purchase of ESL shares from a broker. Only 21% of the sample received an investment recommendation from any source. Of those, the most frequently cited sources of recommendations was from relatives (33.8%), friends (30.5%), brokers (11.9%), media (6.6%) and accountants (2.6%). A five-point Likert scale question used to assess the importance of recommendations received by the investors gave an average score of 3.6, indicating that recommendations were considered as neither important nor unimportant.

Although the Chi-squared tests do not indicate which of the categories caused the differences between the two samples, these can be inferred by inspection of the numbers of responses in each of the cells. Of the surveys returned, 490 respondents completed every question. To protect the analysis from any possible systematic bias associated with those respondents who did not answer all questions, the fully completed questionnaires were used to test for differences among the shareholders of ESL.

TABLE 2
Comparison of Demographic Characteristics between ESL and ASX Shareholders

		ESL	*ASX*	*p value*
Sex	Male	53.0	58.0	
	Female	47.0	42.0	0.00462*
Marital status	Single	15.8	12.8	
	Partnered/Married	71.3	71.0	0.95958
	Separated/Divorced/Widowed	12.9	16.2	
Age	18-24	1.7	6.7	
	25-34	9.7	19.7	
	35-44	27.7	24.8	
	45-54	25.7	22.9	
	55+	35.2	25.9	0.0000
Education status	Year 10 and under	10.4	23.9	
	Year 12	9.7	22.3	
	Trade diploma	28.9	20.1	
	Undergraduate	26.1	25.2	
	Postgraduate	24.9	8.5	0.0000
Socio-economic status	Lower	6.8	24.0	
	Lower-middle	8.2	13.3	
	Middle (administrative, middle manager)	12.8	27.7	
	Upper-middle (managerial)	14.2	19.3	
	Upper (professionals)	58.0	15.7	
	Not defined (including retired or unemployed)	29.1	17.0	0.0000
Household income	Less than 20 000	10.1	4.9	
	21 000 to 30 000	12.0	10.5	
	31 000 to 40 000	14.3	14.3	
	41 000 to 50 000	12.3	16.2	
	51 000 to 70 000	19.2	23.3	
	71 000 to 100 000	16.2	16.2	
	More than 100 000	15.9	14.6	
	Refusal/not stated	2.6	15.3	0.00000
Household assets	Less than 25 000	18.8	21.9	
	26 000 to 50 000	14.2	21.9	
	51 000 to 100 000	12.1	19.6	
	101 000 to 300 000	28.7	19.2	
	More than 300 000	26.2	17.5	
	Refusal/not stated	4.5	21.8	0.0000
Geographic Location	Metro	61.0	53.0	
	Regional	39.0	47.0	
	Not stated	2.4	0	0.00005
	New South Wales/ACT	30.3	33.9	
	Victoria	23.6	26.5	
	Queensland	7.1	20.2	
	South Australia	31.4	8.0	
	Western Australia	4.5	9.6	
	Tasmania	2.0	1.4	
	Northern Territory[1]	0.9	0.4	
	Not stated	0.2	0	0.0000

Note: *Using a two-tailed Fisher exact test.

A. Testing for Non-Response Bias

Even though the proportion of non-respondents was small (13.4%) by comparison to most other surveys, tests were conducted to determine if it was likely that the non-respondents differed from respondents in a systematic manner. The 60 responses from the second

TABLE 3
Comparisons of Investor Behavior between ESL and ASX Shareholders

		ESL	*ASX*	*p value*
Number of stocks in portfolio	One	15.8	25.6	
	Two	14.1	13.9	
	Three	9.4	14.4	
	Four	6.5	7.2	
	Five	6.9	9.5	
	Six to Ten	20.6	18.8	
	Eleven and over	26.7	10.6	
	Not stated	1.7	3.0	0.0000
Length of share ownership	One to two years	20.6	17.8	
	Three to five years	30.8	18.8	
	Six to ten years	17.0	26.5	
	Eleven to twenty years	15.9	16.9	
	Over twenty years	15.7	20.0	0.0000
Value of share portfolio	Under 5 000	23.6	27.2	
	5 000 to 10 000	11.8	19.9	
	10 001 to 25 000	12.9	22.2	
	25 001 to 50 000	12.9	12.8	
	50 001 to 100 000	11.1	6.1	
	Over 100 000	27.7	11.8	
	Not stated	3.8	16.2	0.0000

mailing that had all questions answered were compared to the first 60 responses that were complete. The one significant difference that emerged was the geographic location of respondents. This difference is attributable to the relative time it takes for mail to reach those members of the sample located close to the researchers' home state compared to those residing in the more distant states. As such, the difference is trivial. Combined with the significance levels found in assessing the differences between ESL shareholders and those of the Australian shareholder population, there is no reason to suggest non-respondent bias would alter the results of this study.

VII. GOAL OF INVESTORS

The goal of utility maximization is a fundamental assumption underlying much economic theory. Finance theory operationalizes utility maximization via the assumption that wealth equates with utility. In finance, the maximization of shareholder wealth is taken as the primary goal for corporations. Upon investigation of the motivation for investment in ESL, the results have shown that these investors assessed the financial characteristics of the investment as less important than environmental considerations when they decided to "put their money where their mouths are." These investors would not, apparently, be satisfied with wealth maximization and demand that a psychic utility component be included in their returns. Presumably, this psychic utility comes from providing capital that is used for the protection and conservation of native flora and fauna.

Demographic comparisons were made of the ESL shareholders and the more traditional (and presumably wealth maximizing) shareholders as represented by the ASX survey. The results show that ESL shareholders are indeed different in many fundamental

aspects. ESL shareholders were generally older and more likely to be female than the total shareholder population. They were more likely to be metropolitan residents than regional with significantly higher levels of education, socio-economic status and household assets. Table 2 also shows that reported household earnings were significantly different from the ASX survey.

An alternate explanation stems from the ESL sample including many retired or semi-retired people. According to life cycle theory, these retirees would have lower cash incomes, but would have sizeable unrealized gains from their relatively large levels of household assets. To get an idea of how well the life cycle theory might fit the ESL respondents, the sample was split by income level. The lowest two income groups were used to represent 'low income earners.' These were then compared to the highest two income groups. (Statistical results are not reported here). The low income group had significantly lower levels of household assets, smaller portfolios of much lower value and had held shares for relatively short periods of time. Thus, the differences from the ASX survey do not appear to be explained by the life cycle theory.

VIII. CONCLUSION

With the exception of 'state of residence,' all of the variables tested were significantly different. As one would expect, the low income group included more respondents who were female, single, non-urban residents, more than 55 years old retirees who had, on average, a much lower level of education. Many ESL shareholders had much lower levels of income, thus casting doubt on the 'income affordability' factor suggested in the previous section. The ESL shareholders had, on average, owned shares for a shorter length of time than the participants in the ASX study. Portfolio size was also significantly different between the two surveys. Many ESL shareholders had much smaller portfolios, while many had much larger than would be suggested by conformity to the ASX data. With the sample split on income, the low income group had significantly lower levels of household assets, smaller portfolios of much lower value and had held shares for relatively short periods of time. Differences from the ASX information do not appear to be driven by retirees with relatively low incomes and high household assets.

Although the ability to generalize the results of the study may be limited, this research has identified key differences in the characteristics of a subset of environmental investors when compared to 'average' investors. Further research is required to determine the extent to which these differences are observed across other groups of environmental investors. ESL shareholders appear willing to subordinate short term financial gains in order to provide an enhanced natural heritage for future generations.

More importantly, the investment motivations of ESL shareholders emphasize the divergence of the needs and preferences of this group from mainstream Australian investors. Our results show that wealth maximization was not the primary motivation of ESL shareholders. This finding highlights the importance of advisers' investigating and giving consideration to total utility profiles when advising clients. Similarly, ethical funds could benefit from offering a greater number of differentiated products to meet specific needs of groups of individuals. Ethical funds have struggled for recognition of legitimacy among

mainstream commentators. This research may strengthen the claims for recognition by the ethical investment 'community.'

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