USS

UNIVERSITIES
SUPERANNUATION
SCHEME LIMITED

ENHANCED ANALYTICS FOR A NEW GENERATION OF INVESTOR

How the Investment Industry Can Use Extra-Financial Factors in Investing

James O'Loughlin (JOL Consulting)
&
Raj Thamotheram (USS)

May 2006

CONTENTS

Foreword By Peter Moon 3

Acknowledgments 4

Executive Summary 5

Introduction:
Enhanced Analytics For A New Generation Of Investor 9

Part One:
The Opportunity For Enhanced Analytics 12

The Enhanced Analytics Initiative 14

Part Two:
How Fund Managers Can Make Use Of Extra-Financial Factors 18

Views From Within EAI 21

Enhanced Analytics in Action: Case Studies 22

Part Three:
A Partnership For Investing 29

EAI Members And Associate Members As Of May 2006 35

Endnotes 36

"When an investor systematically integrates all relevant variables into their decision making there is no such thing as an extra-financial factor: just enhanced analytics."

Hendrik du Toit, CIO, Investec

FOREWORD BY PETER MOON

This report describes some of the thinking that is developing around the Enhanced Analytics Initiative from the perspective of one member, USS.

The Initiative arrives at an interesting time in the evolution of the investment management industry. Despite the fact that rising markets have raised all boats, there is a palpable sense in which the industry has lost its way - with a number of groundbreaking developments of the last 50 years, such as Modern Portfolio Theory, and the setting of benchmark targets, falling victim to the law of unintended consequences. Many investors have abandoned the true nature of investing, which is to premise decisions on the basis of what an asset is likely to earn over its lifetime, *and* the true purpose of investing, which is to secure client incomes against the effects of inflation and taxation. Fixing the basics is therefore a very large and important task. And one of these basics is the type of information that investors routinely incorporate into - or routinely exclude from - their investment decisions.

Unfortunately, we cannot depend upon the farsighted behaviour of those few enlightened fund managers who analyse companies in great depth and who uncover material factors wherever they lie - be these in new product development, cost reduction initiatives, succession planning or reputational risk management - to do this for us. The lead steer theory, in which stock prices are set at the margin by informed investors, has been debunked. Prices are set by the interaction of all investors and, in order to improve investment decision making and the allocation of capital, we must makes change at many levels. For those of us who have passive investment strategies, this is particularly important.

One concern about taking this wider perspective is that it could blur fiduciary duty with doing "social good". Take, for example, the issue of low income consumers in developing countries and their access to affordable, basic medicines. Investors come in all shapes and sizes and it is unlikely that a hedge fund and an SRI fund manager would have the same perspective on this question. But all investment professionals assuredly have a duty to take into account the risk to pharmaceutical company reputation and developed economy pharmaceutical pricing that widespread concern about such issues can engender. Why? Quite simply, because it can affect the valuation of the securities that we buy for our clients in ways which cannot be predicted by extrapolating from the past. It is not enough to say others missed it too or that the impact of these factors is hard to time.

By incentivising the sell-side and other research analysts, who constitute a fund manager's customary source of information and advice, to systematically incorporate extra-financial factors into recommendations, we stand a chance, however, of changing the type of information that the investment management industry pays attention to when making those decisions that determine client returns, and which send signals to corporate managers in their husbanding of society's scarce capital. We also allow traditional fund managers the opportunity of investing, or even trading, on this information.

I do not expect you to agree with every conclusion and recommendation contained in this paper. And you may not even like the phrase "extra-financial!" I have some sympathy with that because, as Hendrik du Toit at Investec points out, when an investor systematically integrates all relevant variables into their decision making there is no such thing as an extra-financial factor: just enhanced analytics. But we won't get from here to there by magic - so I do hope this paper stimulates you and those whom you influence to give the extra-financial agenda more serious professional attention than it has received to-date. Approaching the agenda less ideologically is in our clients' and investee companies' best interests. And if you disagree, please let me know why - this paper is designed to provoke a constructive debate from which we can all learn.

Peter Moon
Chief Investment Officer, USS Ltd
enhancedanalysis@uss.co.uk

ACKNOWLEDGMENTS

The authors would like to thank the following for the contributions they made to this paper:

Keith Ambachtsheer (President, KPA Advisory Services Ltd.); Sally Bridgeland (Investment Consultant, Hewitt Associates); Andrew Clearfield (Investment Initiatives LLC and former Director, International Corporate Governance, TIAA-CREF); Jay Dahya (Assistant Professor of Economics and Finance, Baruch College at the City University of New York) and John McConnell, Professor of Finance and Emanuel T. Weiler Distinguished Professor of Management, Krannert School of Management, Purdue University); Martin Eijgenhuijsen (Senior Portfolio Manager, ABP Investments); Rick Galiardo (Director of Pan-European Research, at Sanford Bernstein); Gavin Grant (Global Corporate Governance Research, Deutsche Bank); James Hawley (Co-Director, Center for the Study of Fiduciary Capitalism, School of Economics and Business, Saint Mary's College of California); Julie Hudson (Head, Socially Responsible Investment Equity Research, UBS); Emma Hunt (Senior Consultant, Mercer Investment Consulting); Heath Jansen (Director, Metals and Mining Research, Citigroup); Kirsty Jenkinson (Associate Director, Governance & Socially Responsible Investment, F&C); Keith Johnson (Reinhart Boerner Van Deuren sc and former Chief Counsel, State of Wisconsin Investment Board); Rob Lake (Head of Corporate Engagement, Henderson Global Investors); Karina Litvack (Director, Head of Governance & Socially Responsible Investment, F&C); David Russell (Senior Adviser, Responsible Investment, USS Ltd); John Schaetzl (Sector Portfolio Manager, GE Asset Management); Daniel Summerfield (Senior Adviser, Responsible Investment, USS Ltd); Helen Wildsmith (MPhil Student, Stellenbosch Business School and former Executive Director, UK Social Investment Forum); Andrew Williams (Co-Director, Center for the Study of Fiduciary Capitalism, School of Economics and Business, Saint Mary's College of California); and others who would prefer to remain anonymous.

Residual errors and oversights are attributable to the authors.

EXECUTIVE SUMMARY

THE OPPORTUNITY FOR ENHANCED ANALYTICS

There is a class of investor that is blind to anything but a company's next quarterly earnings per share release. However, a closer look at the work of the majority of investment analysts suggests that there is no shortage of considered thinking with respect to a host of variables that might affect corporate valuations.

Nevertheless, it is one thing to *research* the factors that influence corporate and stock market performance: it is another thing entirely to capture them in *decision making*. And, no less than other professionals faced with a complex task, analysts and investors are challenged with respect to integrating all relevant variables into their judgements.

Investors tend to pay attention to information that conforms to previously established patterns, which they recognise with ease. This means that certain types of data, including extra-financial factors, can be easily overlooked in the action point of a decision - creating an opportunity for informed investors who know better.

THE ENHANCED ANALYTICS INITIATIVE

Defining extra-financial factors as those which are likely to have at least a long-term effect on business results but which seldom get integrated into investment decisions, irrespective of whether they are part of the research process, the Enhanced Analytics Initiative (EAI) is designed to address this oversight at source, by making extra-financial factors more salient to investors.

The EAI is a consortium of investors who believe that weaknesses in the capacity of investors to attend to relevant data can be rectified and that, if extra-financial factors are to lose the 'extra' tag, this is most likely to happen *initially* at the level of investment analysis rather than fund management.

Investment analysis is reasonably well suited to the classical decision making model of listing the relevant factors in a decision, weighting these appropriately and rank ordering choices accordingly - even if this is not how all analysts make decisions. By contrast, as the complexity of the fund manager's decision task expands exponentially, most fund managers jettison the classical decision making model in favour of pattern recognition.

If, however, extra-financial factors have not played a part in prescribing the patterns that portfolio managers consider worthy of attention during their professional development, they are unlikely to appear on a fund manager's radar screen in the future - unless, that is, they are alerted to their materiality to business and stock price performance by a trusted source of information and advice.

Accordingly, EAI members, who manage nearly $1 trillion in assets, have decided to allocate, on an individual basis, a minimum of 5% of respective brokerage commission budgets to research houses that are effective at delivering quality extra-financial research to the fund management community.

ENHANCED ANALYTICS AND THE SOURCES OF ALPHA

The list of extra-financial factors that influence corporate and stock market performance extends from corporate governance and executive remuneration, to occupational health and safety and human capital practices, and to the environmental and social impacts of corporate activity.

Although it is difficult to isolate the role that specific factors play in the determination of stock prices - there is only a negligible correlation between earnings growth and stock market valuations, for example - research suggests that investors price the information pertaining to tangible variables efficiently into stock prices. This provides empirical evidence for the widespread anecdotal view that the bulk of traditional written investment analysis adds little value.

Research also attests, however, that extra-financial factors, which tend to be of a medium- to long-term nature, and frequently difficult to quantify, at least at the start of efforts to do so, are playing an increasingly important role in the determination of stock prices *and* that, to the extent that investors price them into equity valuations, they usually do so with a lag - leaving alpha on the table for those who know better.

The Case for Diversity

The evident and natural preoccupation of analysts and fund managers on single period analysis of traditional financial indicators of performance - the information that does command their attention - has siphoned diversity from the system. This means that most investors access more or less the same information and process it in more or less the same way. The result is a fundamental inefficiency in the allocation of capital that reflects the empirical finding that investors do not take full account of the extra-financial factors in investing. This coexists with a level of informational efficiency that makes the market difficult and expensive to beat.

Since successful investing is premised on finding the variant perception to market expectations, the good news is that mainstream investment analysts who have begun to incorporate extra-financial factors into their analysis confirm that salience of data and analysis does not equate with relevance or predictive value. They also confirm that, by expanding the set of variables they consider in their analysis, they are able to combine novel information with existing information to deliver a different, hitherto unimagined perspective that changes their perceptions and decision making.

Members of EAI and their clients are therefore redefining the nature of fiduciary duty as it relates to the investment research function. Specifically, they are encouraging analysts and fund managers to explore extra financial issues in the full expectation that these will coalesce with current knowledge to transform or enhance their stock selection and portfolio management to bring it into closer alignment with the interests of end beneficiaries.

A PARTNERSHIP FOR INVESTING

Thus far, long-term investing based on a broader perspective of corporate success and failure, which EAI encourages, has been crowded out by natural human tendencies that promote a narrow and short-term focus. In order to change this state of affairs, investing needs to be founded upon an informed partnership between constituents of the investment management industry.

How Fund Managers Can Use Extra-Financial Factors

The EAI is not prescriptive of which extra-financial factors should be researched or how these should be incorporated into investment decisions. However, a review of fund managers who have joined EAI or who are seriously considering doing so highlights several actions they can take to improve their performance in this regard. (see pages 19-20)

What CEOs and CFOs Can Do

Many corporate executives are put - or feel - under considerable pressure to manage to the short-term expectations of investors. However, since investors want *all* the companies in which they invest to grow earnings faster than average, they set hurdle rates that are impossibly high in the aggregate and a vicious cycle often emerges in which managements that are known to manage earnings are punished severely when they miss expectations by even a small margin.

In such a context, CEOs and CFOs who want to see more intelligent and long-term investing and who want to cultivate a relationship with their shareholders that frees them to manage the long-term interests of their businesses, rather than their short-term stock prices, can instigate several initiatives that will help them step off this treadmill. (see page 30)

What Trustees and Consultants Can Do

In face of the difficulty of determining whether a fund manager is likely to generate consistent alpha, those who employ and select fund managers can easily latch on to their most recent performance. In turn, this focuses portfolio analyst and manager attention even more intently on the short-term. To break this cycle, it is important that trustees and consultants recognise their part in sustaining it *and* that a fund manager has no objective basis for consistently forecasting the changes in expectations that drive stock prices over the short-term.

In addition, those who attempt to forecast changes in expectations over the short-term cannot ensure that the feedback they get on the quality of their decisions is accurate, which means they should have no objective expectation of learning from experience. Finally, as the practice of short-term investing has evolved into the art of predicting earnings surprises, the elements of

the investment management industry have opted for a strategy that is practically impossible to execute since a small number of (unpredictable) inaccuracies in the sample destroy the gains to be had from the strategy.

In these circumstances the way forward is to be smarter and tougher on how critical business risk/reward issues are negotiated and how they are monitored during the period of the contract. (see pages 31 to 32)

What Unions Can Do

Recent legislation requires all occupational pension funds to appoint member nominated trustees. Therefore unions now have the potential to influence in excess of £800bn in pension fund assets in the UK alone. To date, union efforts in the investment arena have been directed at what might be described as 'symptoms' of the problem. A more informed trade union movement has the chance to focus on the systemic causes of why company management adopt a short-term approach and why they are so keen to externalise labour and other costs. (see pages 32 to 33)

A NEW GENERATION OF INVESTOR

A customer base that is interested in financial performance *and* the way in which that performance is generated already exists for those investors able to make use of extra-financial factors in investing.

Moreover, there are strong grounds for anticipating significant growth in this market. Regulators are creating mounting pressure for change. There is much positive momentum as trustees and investment consultants update their understanding of what fiduciary good practice means in the 21st Century. Some investment consultants are already making clearer distinctions between the nature of investment processes, which allows their clients to make a more informed choice. Above all some of the best respected and largest owners of assets are now moving in this direction.

For its part, the EAI is encouraging the emergence of a new generation of investment professional: an individual who is more oriented towards the long-term, better informed of the role that extra-financial factors play in corporate performance and stock prices, and better able to integrate information from diverse sources into his or her decision making and risk management to take advantage of the alpha that research attests is available - not least by avoiding negative alpha.

Whilst the members of EAI have different investment cultures, they agree that it is as important for relevant information to find them as it for them to predefine what information may be relevant. Thus EAI members do not seek to conduct all research through in-house teams, or expect their SRI/corporate governance analysts to cover all issues in all stocks in all markets, occasionally with the aid of specially commissioned broker research.

As a result of EAI incentives and related developments, sell side research analysts have started to meet demand by embedding a longer-term and broader perspective into their work thereby meeting the requirements of bringing extra-financial factors to investors' attention by supplying novel data and analysis in a familiar and trusted format.

The increasing quantity and improving quality of investment relevant research pertaining to these issues benefits two groups - investors and corporate managers

Investors develop the background knowledge about extra-financial factors that they need to construct scenarios that are better suited to anticipating possible future states of a company. They are equipped with models that demonstrate how to quantify or otherwise integrate extra-financial factors into investment decisions. And they gain access to information that allows them to think differently from the market, enhancing their prospects of out-performing it.

In parallel, corporate managers gain a business case for improving their management, monitoring and reporting of material extra-financial factors.

The "Additional" Prize

There is also an "additional" prize on offer for fund managers who seize this opportunity. They can know they are playing their part in presenting signals to management that enhance return on capital, by encouraging higher productivity through more efficient allocation of capital. This feeds through to economic growth through the reinvestment of higher corporate

profits, and it also sees a reduction in business risk feed through to a lower cost of capital.

These effects can be expected to raise the equilibrium levels of economic growth and return on capital to a higher level - so that the gains from incorporating extra-financial factors into investing are permanent. And, in a properly functioning financial market these welfare gains should be quickly factored into higher asset prices.

For asset owners who are focused on their liabilities and *the purpose* for most investment - the quality of retirement life of their beneficial members or customers - this is no small additional benefit. As some fund managers come to accept that they are corporate citizens in their own right, and that they have responsibilities to discharge, client awareness about what they should be expecting from their service partners will grow.

In this way, the new generation of investors will set the benchmark for its peers.

And, by systematically integrating all relevant variables into their decision making, the 'extra' in extra-financials will finally be dropped from the lexicon of investing.

INTRODUCTION:
ENHANCED ANALYTICS FOR A NEW GENERATION OF INVESTOR

"To state an obvious, but often overlooked fact - quarterly earnings do not reflect companies' long-term viability. Identifying the factors that will drive long-term growth - such as personnel, strategy, financial strength and flexibility, internal corporate governance, innovation and customer service - may be more difficult to quantify, but they offer a more accurate and more complete portrait of a company's future."

William H. Donaldson[1]

The average holding period of equities in professionally managed portfolios in many markets, including the US and UK, approximates to just one year. And evidence of the narrow thinking that underpins this behaviour is widespread.

Investment performance is commonly measured on a quarterly basis and remunerated on the basis of rolling annual performance. Many retail and professional investors adopt a momentum-based strategy that sees them buying funds and stocks, respectively, on the basis of prior year performance[2]. And, while corporate managements have grown weary of being quizzed about the next set of results, they have also grown wise to the fact that corporate performance and the metric to which their personal rewards will be linked will be summarised by a single number: earnings per share.[3]

It would be easy to conclude from casual observation, therefore, that prices in the stock market are set solely on the basis of the outlook for the next twelve months, that nothing but financial variables are factored into the equation and that, in order to thrive in this environment, it is necessary to play the game according to these implied rules.

This would be a costly error of judgement, at least for the asset owners involved.

A Closer Look at the Stock Market

There is a class of investor that is blind to anything but a company's next quarterly earnings per share release. However, a closer look at the work of the majority of investment analysts suggests that there is no shortage of considered thinking with respect to a host of variables that might affect corporate valuations *and* that analysts often demonstrate a wealth of strategic thinking about the long-term direction of companies. Scrutiny of the stock market also reveals that it does incorporate long-term expectations of corporate performance into the valuation of equities. And, in addition, research has shown that extra-financial factors, which are not easily captured in reported accounts - much less in earnings per share - do play a leading role in the valuation of equities.

Nevertheless, it is one thing to research the factors that influence corporate and stock market performance: it is another thing entirely to capture them in decision making. And, no less than other professionals faced with a complex task, analysts and investors are challenged with respect to integrating all relevant variables into their judgements. This means that certain types of data, including extra-financial factors, can be easily overlooked in the action point of a decision - thus creating an opportunity for informed investors who know better.

A New Generation of Investor

Defining extra-financial factors as those which are likely to have at least a long-term effect on business results but which seldom get integrated into investment decisions, irrespective of whether they are part of the research process, this report presents the case for how investors can overcome the natural impediment to incorporating extra-financial factors and their motivation for doing so.

It also seeks to demonstrate how enhanced analytics can encourage the emergence of a new generation of investment professional: an individual who is more oriented towards the long-term, better informed of the role that extra-financial factors play in corporate performance and stock prices, and better able to integrate information from diverse sources into his or her decision making and risk management to take advantage of the alpha that research attests is available - not least by avoiding negative alpha[4].

The report includes evidence of the role that extra-financial factors play in corporate and in stock market performance. It explains why the availability of such research does not automatically result in such factors being incorporated into investment decisions. It highlights why some investors are finding that the incorporation of extra-financial factors in investing is enhanc-

ing their understanding of the equation for valuing companies. It illustrates how certain research houses are going beyond traditional investment analysis to learn that a systematic treatment of extra-financial factors can enhance the provision of value-added ideas to their clients. And it discusses what CEOs and CFOs, fund managers, trustees - as well as the consultants that advise them on fund manager selection - and the union movement can do to ensure that the consideration of extra-financial factors gets due regard in the decisions that impact upon the allocation of capital.

The Lever for Change

This report concludes that weaknesses in the capacity of investors to attend to relevant data can be rectified and that a good - perhaps the best - lever for change is sell side research.

The Enhanced Analytics Initiative (EAI) is designed to tackle the neglect of extra-financial factors in the analytical process at source, so making them more salient to investors. By making sense of information overlooked by others, investors can then enhance their ability to think differently from the market when it pays to do so. The EAI fosters this advantage by providing an economic incentive to sell side and other research analysts to embed a longer-term and broader perspective into their work and so supply novel data and analysis in a familiar and trusted format.

The resultant increase in the quantity of investment relevant research pertaining to these issues and the improvement in its quality benefits two groups - investors and corporate managers.

Investors develop the background knowledge about extra-financial factors that they need to construct scenarios that are better suited to anticipating possible future states of a company. They are equipped with models that demonstrate how to quantify or otherwise integrate extra-financial factors into investment decisions. And they are provided with information that allows them to think differently from the market, which enhances their prospects of out-performing it.

In parallel, corporate managers gain a business case for improving their management, monitoring and reporting of material extra-financial factors.

When aggregated, these changes will allow the financial system to perform its core purpose - of allocating capital efficiently - more effectively and in better alignment with broader societal goals.

Plan of the Paper

This paper, which is in three parts, has been written for fund managers who are committed to a fundamental, research based investment approach and for their clients. Its focus is therefore on the link between alpha and extra-financials but it also highlights important links between market return and extra-financials[5].

Part One - *The Opportunity for Enhanced Analytics* - highlights the disconnect that exists between the factors that some investors research and the factors that most investors integrate into their decisions. It identifies the limited capacity of the human brain to attend to all information when making decisions as an important reason for this, and defines extra-financial factors as those which are likely to have at least a long-term effect on business results but which lie outside customary span of variables that get integrated into investment decisions, irrespective of whether they are part of the research process. It discusses the role that extra-financial factors play in corporate and therefore stock market performance and introduces the opportunity for enhanced analytics to tackle the oversight of extra-financial factors at source - in their salience to investors - by furnishing investors with trusted information with respect to these factors and with models that help them integrate them into their analysis.

Part Two - *How Fund Managers Can Make Use of Extra-Financial Factors* - observes that the stock market is a long-term discounting mechanism but also acknowledges that the focus that many investors have on short-term and narrow indicators of financial performance distorts the accuracy of the discounting mechanism and results in a fundamental inefficiency in the allocation of capital. It presents the case for diversity and the EAI's role in facilitating the ability of investors to think differently from the market. It also makes some practical suggestions as to how fund managers might integrate extra-financial factors into their investment processes, in order to take advantage of the alpha that is available from doing so. Case studies are also presented showing enhanced analytics in action.

Part Three - *A Partnership for Investing* - makes a call for an informed partnership of CEOs/CFOs, trustees, consultants and unions to improve the context for investment management. CEOs and CFOs are encouraged to recognise that many investors have a rudimentary understanding of the materiality of extra-financial factors and that there is a limit to investors' ability to attend to all relevant information. Accordingly, they are asked to do their part in ensuring that investors take more notice of the role that extra-financial factors play in corporate performance. In the face of the inevitable failure of short-term and overly narrow - some might say fundamentalist - thinking, trustees and consultants are asked to actively encourage fund managers to embed a longer-term and broader perspective in their investment management, which also incorporates the role of extra-financial factors. And a newly empowered union movement is encouraged to become part of this systemic solution. The "additional" prize on offer to the fund managers that this partnership influences is that they can know they are playing their part in enhancing the system-wide allocation of capital, which provides for better long-term and sustainable investment returns.

PART ONE:
THE OPPORTUNITY FOR ENHANCED ANALYTICS

"Practically everybody overweighs the stuff than can be numbered because it yields to the statistical techniques they've been taught in academia and doesn't mix the hard-to-measure stuff that may be more important."

Charlie Munger[6]

"Investors move away from analytical procedures towards more intuitive procedures as the decision situation becomes more complex - tending to use simple models that employ surprisingly few decision attributes."

Robert Olsen [7]

Sophisticated valuation analysis is widespread in the investment industry. It attracts bright minds and it is supported by a wealth of theory underpinning the equation for value.

Discounted cash flow valuation models are commonplace in many analysts' research reports, for example. Where firm value is more dependent on accounting intangibles, analysts' reports normally give greater weight and attention to information about firm strategy, managerial competence, R&D expenditures and other extra-financial factors[8]. Analyst surveys also uncover mostly considered thinking with respect to a host of variables that might affect the long-term outlook of the companies they research.

Nevertheless, research into the way in which analysts incorporate business forecasts into stock recommendations supports the notion that investors focus primarily on the short-term and on a narrow set of indicators of financial performance. Analysts tend to underpin their recommendations with a simple earnings-based heuristic, for example[9]. Single period PE analysis is the mainstay of the industry[10]. And analysts and fund managers often rate discounted cash flow and discounted dividend models as unimportant in their practical decision making[11].

The Disconnect

The disconnect that exists between the factors that many analysts *research* and the factors they and fund managers *incorporate* into investment decisions is not surprising: it happens in every occupation in which practitioners are required to attend to large quantities of information and integrate data containing complex relationships into intelligent decisions. Because the human brain is challenged in this regard, most professionals adopt a tried and tested coping mechanism based on the use of short-cut rules of thumb that get the job done most of the time.

Rule of Thumb Decision Making

At the point of decision making, investors therefore *tend* to pay attention to information that conforms to previously established patterns, which they recognise with ease. If they are accustomed to viewing the world through a lens which is sensitised to the accounting information that their training and the industry's intellectual legacy is founded upon, they will normally see what they expect to see in this regard - meaning that they can be blind to data that perhaps they should pay attention to[12].

Analysts have also learned to pay most attention to information that is both salient and recent. They are drawn to using information that appears more concrete, that is easier to absorb and integrate into their analysis, and which they consider to be more trustworthy[13]. Indeed, these are all reasons that skeptical analysts cite for *not* incorporating extra-financial factors in their work[14].

Analysts dislike ambiguous data. They tend to overweight factors that are most easily measured and use information in the form it is displayed rather than modifying it appropriately. Analysts use much less of the available information than they think they do in their decisions and even experienced analysts are mostly unaware of the extent to which their judgments are determined by a few dominant factors, rather than by the systematic integration of all available information[15].

In addition, confirming Rappaport's assertion that analysts "believe that estimating distant cash flows is too time-consuming, costly, and speculative to be useful,"[16] the natural human response in the face of uncertainty has been to focus on predicting short-term results and stock price changes - because, although it will be shown later that this is practically impossible, this *appears* possible to human brains that 'see' cause and effect at every turn.

The End Result

When combined, the widespread tendency to discount non-traditional financial accounting data, the limited ability of most analysts to attend to all relevant information in their decision making, and their proclivity to concentrate on short-term factors they feel they can forecast, results in an industry-wide focus on a narrow information set of financial indicators of performance. This information set captures investors' attention because it dovetails with how our brains are wired to make decisions. It therefore has an evolutionary advantage in this respect over less salient - *but not necessarily less relevant or predictive* - factors that analysts employ in the equation for valuing a company. And it provides the opportunity for the Enhanced Analytics Initiative.

"In the short term the stock market is a voting machine. In the long-term, it is a weighing machine."
Benjamin Graham[17]

Evidence of the way in which certain kinds of data can fail to capture investors' attention has been found in the underweighting of the information contained in accruals. These are factors that are clearly stated in reports and accounts but which are less prominent than other information contained in those documents, and which do not fit with traditional earnings-based approaches to valuation[18]. Not surprisingly, the same dynamic extends to the extra-financial factors discussed in this report.

Indeed, the *extra* in extra-financials is put there, not because these factors do not have a measurable financial impact on corporate performance - the research has shown that they do. *It exists because these factors lie outside customary span of variables that get integrated into investment decisions, irrespective of whether they are part of the research process.*

A Consortium for Change

The EAI is designed to address this problem by providing sell side and other research providers with an economic and reputational incentive to expand the list of variables they incorporate into their recommendations to include material extra-financial factors. It is a consortium of investors managing nearly $1 trillion in which each fund manager member allocates, on an individual basis, a minimum of 5% of respective brokerage commission research budgets to research houses that are effective at doing this[19].

The EAI also includes associate members who do not manage their own assets, but who are encouraging their external asset managers to take part in the Initiative. There is no prescription about how this should happen but some significant owners have chosen to adopt a "comply or explain" strategy.

Breaking Through Attentional Deficits

The goal of the EAI is to encourage the sell side to signpost more clearly those extra-financial factors, which are either not part of existing tool kits or which are contained within the complexity of information that investors have to distil into decisions, in order to break through investors' attentional deficits.

The Initiative starts with the sell side because, if extra-financial factors are to lose the 'extra' tag, this is most likely to happen initially at the level of investment analysis rather than fund management. Investment analysis is reasonably well suited to the classical decision making model of listing the relevant factors in a decision; weighting these appropriately and rank ordering choices accordingly - even if this is not how all analysts make decisions.

By contrast, as the complexity of the fund manager's decision task expands exponentially, knowingly or not, most fund managers jettison the classical decision making model in favour of pattern recognition[20]. If, however, extra-financial factors have not played a part in prescribing the patterns that fund managers consider worthy of attention during their professional development, they are unlikely to appear on a fund manager's radar screen in the future - unless, that is, they are alerted to their materiality to business and stock price performance by a trusted source of information and advice.

The EAI is therefore designed to tackle the problem of integrating extra-financial factors into investing at source, first and foremost by making these factors more salient to investors. Specifically, its objective is to encourage sell side houses to embed a longer-term and broader perspective into their work and so begin to supply novel data and analysis in a familiar and trusted format.

Increasing the quantity and improving the quality of investment relevant research pertaining to these issues benefits two groups - investors and corporate managers.

Investors develop the background knowledge about extra-financial factors that they need to construct scenarios that are better suited to anticipating possible future states of a company. They are equipped with models that demonstrate how to quantify or otherwise integrate extra-financial factors into investment decisions. And they are provided with information that allows them to think differently from the market, which enhances their prospects of out-performing it.

In parallel, corporate managers gain a business case for improving their management, monitoring and reporting of material extra-financial factors[21].

The Factors

The list of extra-financial factors that interest members of the EAI include, but are not limited to, intellectual capital management, executive remuneration, human rights, occupational health and safety and human capital practices, innovation, research and development (R&D), customer satisfaction, climate change, corporate governance, consumer and public health, reputation risk, and the environmental and social impacts of corporate activity.

These factors tend to be of a medium- to long-term nature, the timing of their impact is often difficult to predict, and they are frequently difficult to quantify, at least at the start of efforts to do so.

Corporate Governance as Exemplar

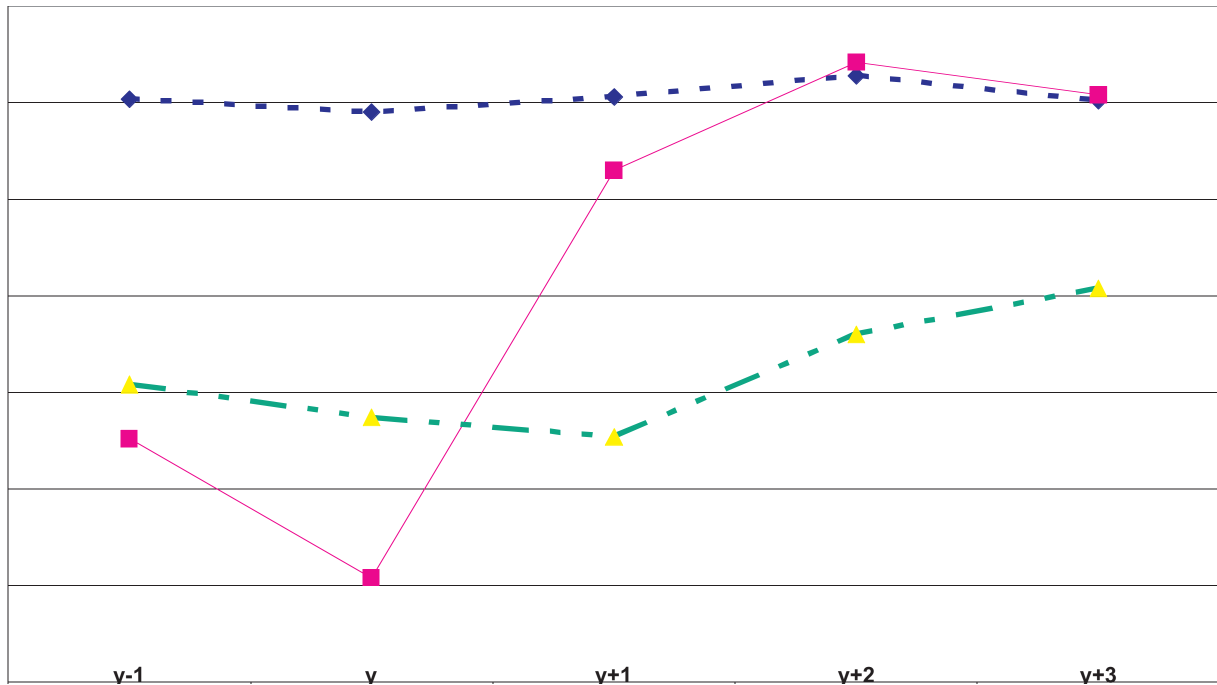
Take corporate governance, for example. The contribution of corporate governance to business results is not recorded accurately in reports and accounts. To the extent that traditional fundamental analysis can measure its effect, it exists as an immediate expense. Yet it also has a considerable influence on corporate performance - exemplified by the significant improvement in return on assets (ROA) that many UK companies experienced after they adopted the recommendation of the Cadbury Report in 1992 to increase the number of outside directors on their boards (see Figure 1, following)[22].

Undoubtedly, traditional investment analysis would have picked up this improvement in ROA: it falls straight out of the annual reports.

Further analysis would have revealed the relationship between corporate governance and operating performance that Jay Dahya and John McConnell uncovered in their research, namely that the improvement in ROA was engendered by tighter control over operating expenses. That is also in the annual reports somewhere.

Equally, investors knew enough about the significance of these governance changes to mark up the stock prices of the relevant companies around the announcement date, indicating that they anticipated the performance improvement to come. Nevertheless, in doing so, they still left alpha on the table for those equipped with a broader array of mental models, which would enable them to escape the anchor of narrow fundamental analysis in order to anticipate the impact of better governance more fully.

Figure 1. Return on assets and compliance with Cadbury Report recommendations



The solid line represents the set of firms that came into compliance with the Cadbury Committee recommendations over the period 1989 - 1996, with year y as the year of adoption. The dotted line represents firms that were always in compliance, and the dashed line represents firms that were never in compliance over the period.

Enhanced Analytics and Sources of Alpha

Leonard Nakamura estimates that investments in intangible assets equates to the value of the corporate sector's investment in fixed assets and machinery and that investors ascribe a value of over $6 trillion to such assets in the U.S[23].

However, while the search for causation in this evident valuation exercise is ongoing, attempts to isolate the role that specific factors play in the determination of stock prices have proven inconclusive. There is only a negligible correlation between earnings growth and stock market valuations, for example, and although return on invested capital has more explanatory power, this remains partial. That leaves a large and unknown *X* factor in the formation of stock prices.

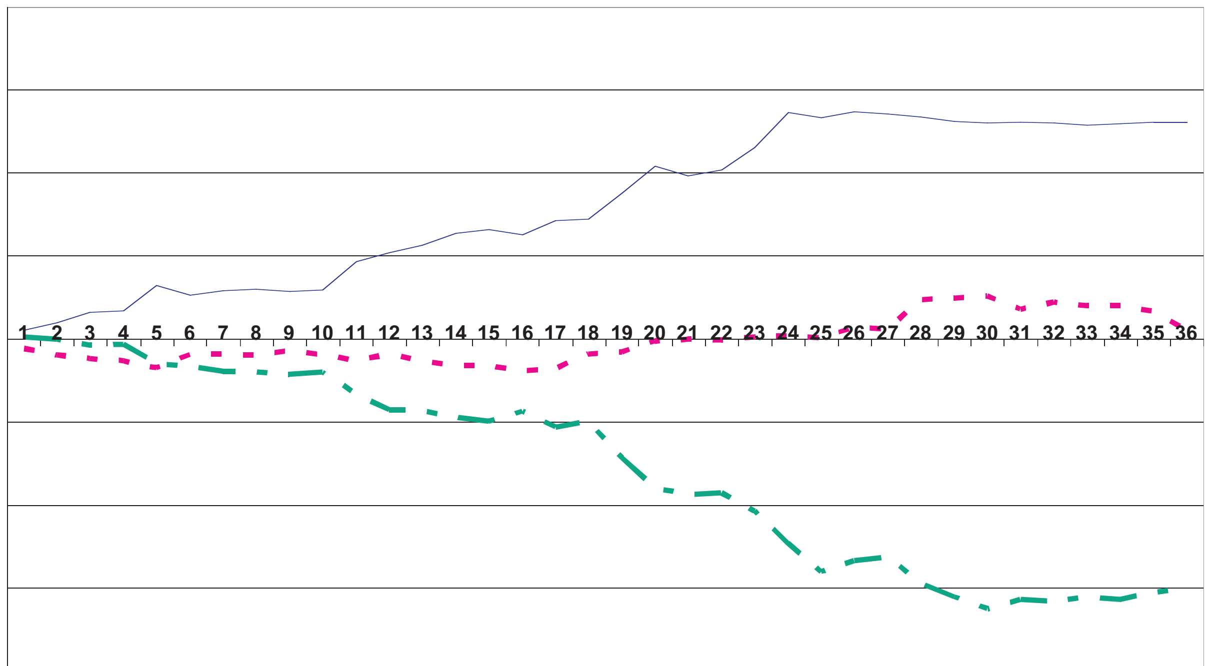
Given that stock prices are set by expectations and changes in expectations this is hardly surprising[24].

Nevertheless, research does suggest that part of the *X* factor is captured by insiders - in the informational advantage they have over the market with respect to the outlook for their businesses[25]. This is particularly pronounced in the case of companies that are R&D intensive, where R&D intensity has been found to be a leading indicator of stock market performance, but additional research confirms that elements of the *X* factor are contained in the other extra-financial factors listed above.

For example, whilst the work of Kent Daniel and Sheridan Titman has shown that investors price the information pertaining to tangible variables efficiently into stock prices - calling into question the value added of much traditional investment analysis - they have also discovered that, to the extent that investors price less salient, intangible information into stock prices, they usually do so with a lag[26].

Dahya and McConnell's research into the effect of corporate governance changes in the UK confirms this finding. As Figure 2 shows, the stocks of those companies that came into compliance with the recommendations of the Cadbury Report continued to outperform those which were either always in compliance or those which were never in compliance for a considerable period of time after the announcements of the relevant board changes were made.

Figure 2: Abnormal stock returns for Cadbury, always-in-compliance and never-in-compliance portfolios



Empirical Findings

This is a typical finding in so-called event studies, which seek to measure investors' reactions to new information pertaining to the outlook for a company or set of companies and is also exemplified in the fact that adverse and beneficial environmental events have negative and positive effects on stock prices[27]. But research suggests that investors also misprice (normally undervalue) existing information contained in extra-financial factors:

- In the vein of the Cadbury Committee study, Paul Gompers has shown that the stock prices of companies with 'pro-shareholder' corporate governance structures outperform those with 'anti-shareholder' corporate governance structures[28].

- Stock market valuations are positively associated with the rights of minority shareholders[29].

- Firms that are deemed least eco-efficient have values that are significantly lower than peer-group companies[30].

- Superior human capital management is a leading indicator of increased shareholder value[31].

- And expenditures on staff training have a significant positive effect on stock market performance[32].

A number of the studies above have also found that the valuation effect of these factors has grown increasingly important over time. And, as the work of Alison Thomas at PricewaterhouseCoopers demonstrates, when extra-financial factors are made salient to investors they do materially change investor perceptions, particularly with respect to the risk they attach to a firm's cash flow generation[33].

PART TWO:
HOW FUND MANAGERS CAN MAKE USE OF EXTRA-FINANCIAL FACTORS

"The simple fact that stocks trade at multiples of current earnings is prima facie evidence of the stock market's extended time horizon."

G. Bennett Stewart[34]

The premise of the EAI rests on the notion that the stock market is a long-term discounting mechanism that prices in the contributory factors to corporate performance outside of, and in addition to, the narrow metrics of traditional investment decision making, but that it does not always do this with perfect efficiency. This means investors can exploit this fact to their advantage, and to the benefit of the system-wide allocation of capital.

The EAI recognises the inherent paradox contained in the stock market, which is that pervasive evidence of short-term and narrow thinking coexists with incontrovertible evidence that the stock market is a long-term discounting mechanism.

Those who focus on near-term financial indicators of performance would do well to reflect upon the fact that the UK stock market, for example, has traded on average PE multiple of 13.5x since 1965, and that any stock selling on this kind of rating has to be held for an equivalent period for the earnings just to recoup the principal paid[35].

More sophisticated research into the valuation of equities by McKinsey and others confirms that, in almost all industry sectors and almost all stock exchanges, up to 80% of a share's market value can be explained only by cash flow expectations beyond the next three years[36]. Cash flows in the global semiconductor industry, for example, need to grow at more than 10% a year during the next ten years to justify current market valuations.

The Invisible Brain of Collective Intelligence

Our understanding of the discrepancy between the observed behaviour of individual investors and aggregate outcomes in the stock market has been enhanced in the last 10 years by research into the way in which complex systems, comprised of large numbers of autonomous agents, behave.

Consider, for example, the complex system of an ant colony[37]. Ants have been shown to be remarkably adept at solving the logistical problems contained in searching for food, routinely finding the shortest route to and from food sources and their nests. Yet it is impossible to predict the emergence of these efficient solutions by analysing the individual behaviour of the insects that produce them.

Each ant acts independently, within a context of other ants acting independently. There is no single agent in the design; simply a collection of essentially dumb individuals operating to an instruction to follow the strongest pheromone trail available. The shortest route self-organises out of the interaction between the insects on this limited basis.

The same self-organisation manifests itself in the stock market. Like all complex systems, it yields a collective intelligence that belies observation of its constituent parts simply through the interaction of *diverse* entities - from long-only to hedge fund investors - each pursuing their own niche interests, employing a multiplicity of approaches and learning by experiment.

But this model of the stock market also tells us how and why it can make mistakes. The collective intelligence that emerges within complex systems has been shown to be superior to the intelligence of the individuals that comprise them in a host of decision making tasks[38]. Nevertheless, we also know that collective intelligence breaks down when diversity is lost - and we are now at this juncture in the investment management industry.

As efficient as an ant colony's search-and-retrieve algorithm is, if all ants pursued the same proven strategy, the colony would face ruination in the depletion of known food sources. That is why ants are genetically programmed to occasionally wander off even fruitful trails. The presence of a diversity of behaviours ensures the colony's success in finding new and possibly richer sources of sustenance.

In the stock market, the natural preoccupation of analysts and fund managers on single period analysis of traditional and salient financial indicators of performance has siphoned diversity from the system - yielding a fundamental inefficiency in the allocation of capital that supports the empirical findings above, but

which also coexists with a level of informational efficiency that makes the market difficult and expensive to beat.

THE CASE FOR DIVERSITY

"I asked the right questions by seeking the 'variant perception' in each idea... I defined variant perception as holding a well-founded view that was materially different from the market consensus."

Michael Steinhardt[39]

"Everyone can produce financial figures, but what can really make the difference is the story behind the other stuff."

PricewaterhouseCoopers[40]

The outcome of this reduction in the industry's diversity is that most investors access the same information and process it in more or less the same way.

Successful investing, on the other hand, is premised on leaving the trail in pursuit of a better way - to find the variant perception to the market that offers the objective expectation of outperforming it. One of the aims of the EAI is to facilitate this search[41].

Mainstream investment analysts who have not customarily incorporated extra-financial factors into their analysis confirm that by doing so they develop a better sense of the value of the equity in question[42]. The source of this insight? By expanding the set of variables that they consider in their analysis and by combining them into a more diverse array of mental models, they are able to combine novel information with existing information to deliver a different, hitherto unimagined, perspective that changes the data set that they focus on in their analysis.

Members of EAI and their clients are therefore redefining the nature of fiduciary duty as it relates to the investment research function[43].

Intelligent investment processes recognise, first, that the greater the number of building blocks to analysis, the greater the number of scenarios that can be generated and, second, that when investment decisions do not systematically incorporate all relevant variables it is not in human nature to imagine a scenario different from the initial conclusion that results from such analysis. EAI members are therefore encouraging analysts and fund managers to explore extra financial issues in the full expectation that these will coalesce with current knowledge to transform or enhance perceptions and decision making - and with the expectation that they will grab their attention in the future.

EAI members also recognise that it is not in the nature of the stock market that they can preordain the information they should incorporate into their decisions. Rather than conducting all research through in-house teams, or expecting a few SRI/corporate governance analysts to cover all issues in all stocks in all markets, occasionally with the aid of specially commissioned broker research, EAI members - in their search for a better way - recognise that *it is as important for relevant information to find them as it for them to predefine what information may be relevant*. That is why they are playing their part in providing an economic incentive for the sell side to gather and analyse information that maximises diversity within the buy side's investment decision making and on which EAI members and others can then trade.

HOW FUND MANAGERS MIGHT USE EXTRA-FINANCIAL FACTORS

"Over time, more thoughtful decision-making will lead to better overall results, and more thoughtful decision-making can be encouraged by evaluating decisions on how well they were made rather than on outcomes."

Robert Rubin[44]

The EAI is not prescriptive of which extra-financial factors should be researched or how these should be incorporated into investment decisions. Nevertheless, interviews with portfolio analysts and managers from firms that are members of EAI or sympathetic to its goals indicate that there are several actions that individuals and organisations can take to improve performance in this regard and their experience is distilled below.

For individuals

- Equip yourself with a realistic model of the role played by extra-financial factors in operating performance. Doing so will ensure that you are more likely to see them when they have a material role in the determination of stock price

performance. The goal is not to replace your existing mental models but extend them to incorporate the additional relationships that exist between extra-financial factors, operating performance and traditional analytical metrics. When they embed at this level they will become part of the store of patterns that you recognise at work in the stock market. Talking to experienced corporate executives is very valuable in this regard. Research from the sell side houses that have been commended by EAI can also be useful, as can reports from other consultants. For example Innovest[45], McKinsey[46], and the consultancy arms of the "Big 4" have recently produced investor-friendly thematic and sectoral reports on extra-financial factors.

- Determine what information to pay attention to ahead of time. Incorporate extra-financial factors into the filters that you use to sift the information you want to pay attention to. Such filters are essential in the face of the wealth of information that is available to you and which threatens your ability to make rational decisions but they need to be adapted. Without them, material extra-financial factors are unlikely to appear on your radar screen.

- To obviate the possibility that decisions will be premised on a handful of salient but not necessarily predictive factors, use the variables that you consider in the equation for value as a checklist. That way, you are more likely to capture the influence of variables that exist on the periphery of your attentional set.

For organisations

- Become a member of the Enhanced Analytics Initiative.

- Holding a mirror to the objectives of the EAI, consider developing an in-house capability that can take advantage of enhanced analytical research and which can help traditional portfolio analysts/managers interpret this new body of information.

- With regard to internal and external extra-financial data/research providers, encourage them to provide information that is salient, measurable, trustworthy and which is easily integrated into existing models.

- In the spirit of maximising diversity, encourage front office staff to access information from diverse sources. For most fund managers, this will mean talking to relevant non-corporate commentators or other experts.

- Reward decision making that systematically incorporates relevant variables into portfolio construction by ensuring that you reward process in parallel with (historical) performance. Since investing is a probabilistic exercise, judging a fund manager's ability on the basis of his or her short- to medium-term portfolio performance is, at best, challenging and can often induce perverse behaviour. Desired decision making behaviours, on the other hand, can be encouraged in light of a clear understanding of what "good" looks like with respect to the way in which investment professionals cope with large amounts of data, including variables that are currently classed as extra-financial.

"By choosing to allocate a small percentage of our overall fees, we have significantly changed the internal debate. Our analysts have sell side colleagues they trust and when these organisations and individuals produce these reports our staff do take notice."

Peter Moon, CIO, USS

As with other EAI members, USS is very clear that sourcing diverse information and equipping fund managers and analysts with the tools to look at information from a different angle is beneficial. But not all fund managers have, as yet, decided to join EAI. It is particularly surprising that this includes many fund managers who have a formal commitment to corporate governance or SRI. In some quarters it is believed that allocating 5% of commission to encourage research into extra financial factors is excessive; a surprising conclusion given academic evidence of the importance of intangibles in defining firm value. In some other cases, fund managers argue that they are already giving more and do not wish to decrease this payment; an argument which reflects a basic misunderstanding of EAI 5% minimum commitment.

Some investment managers, both SRI and traditional, believe that taking authority away from senior fund managers to allocate broker commission is a mistake in principle. But USS has found that the tapping into the collective intelligence of the EAI membership is a very effective way of achieving high quality evaluations. "Of course, mobilising the political will to allocate commissions in an objective and transparent way is not as easy as it looks," says Moon "but nor is it impossible in an organisation that has good leadership and which isn't frightened by change. It takes the CIO to want to break the chicken and egg dilemma - most analysts haven't been trained to understand the importance of these issues, so you can't expect them to pay for it off their own back. No one really objects when we pay 5% for macro economic research and the extra-financial notes are much more useful to bottom-up stock pickers."

Fund managers who accept these points nevertheless assert that the bespoke broker research they commission with respect to extra financial factors gives them an edge. EAI members take a longer-term approach. "Reliance on purely quantitative analysis is appropriate in the short term," says David Blood, Chairman of the EAI and Managing Partner at Generation Investment Management, "but long term research means embracing intangible and qualitative aspects of performance as well. The longer term the focus, the more inherently uncertain things become, thus the more emphasis required on understanding a broader scope of qualitative factors. We therefore want to encourage our research partners to produce research which help us better understand the qualitative and intangible aspects of performance."

Peter Moon agrees. "Gaining an informational advantage over the market may be one way to outperform it in the short-term," he says. "But a far more sustainable advantage accrues to those investors able to process information differently and more rationally than the market and, for that, we need quality information rather than the pseudo inside information which, in reality, is available to anyone with a cheque book."

This attitude reflects awareness that even long-term investors will trade on short-term numbers and that it would be better to do this in light of a complete understanding of a company's performance, and not just on the basis of one aspect of this. EAI members also highlight that much bespoke ESG research has, in the past at least, been designed to support screening processes for SRI funds or engagement projects. These are worthy uses of research money, and indeed several EAI members also make use of bespoke work for these purposes. But they also acknowledge, as Moon says, "that such research is largely unrelated to what traditional buy sides analysts use in their actual investment decision making."

Do EAI members think the design of the EAI pull signal is perfect? "Of course not," says Virginia

Holmes, Chair of USS's Investment Committee "but the bottom line is, if all the clients who said they were interested in these issues had in fact been sending credible client signals to the sell side, why have we only seen such a big change since EAI was started? Will research houses try to game the scoring system? Sure, and I trust EAI will keep modifying the system to reduce this factor. Does EAI reward access to analysts? No, but we don't need EAI for everything and EAI does what it says on the tin - it rewards research houses for written research which the entire market can trade on."

ENHANCED ANALYTICS IN ACTION: CASE STUDIES

The EAI conducts a six monthly evaluation of research that EAI members have found useful, using criteria established by EAI's members. There are generally 5-10 winners and the 5% commission pot is allocated to this group.

The number of research providers producing relevant extra-financial analysis increased from 17 to 31 in the 12 months following the December 2004 Baseline Evaluation. In the same period the number of reports qualifying for evaluation has increased by 500%. Whilst it is impossible to attribute this development only to EAI, it is clear that many analysts see this project as a significant factor as evidenced in the 2005 Thomson Extel survey.

Sanford C. Bernstein and Deutsche Bank have both been rated highly by the EAI evaluation process for their treatment of extra-financial factors. Citigroup is one of the newer providers of extra-financial research and as yet, has not been highly ranked by this process. Examples from these research providers are shown below, followed by a case study from a fund manager member firm, Generation Investment Management.

1. SANFORD BERNSTEIN PHARMACEUTICAL RESEARCH

"Our work has shown that pharmaceutical investors typically wait for a drug to be approved before they discount it into the stock price. But this hit or miss approach fails to appropriately assess the longer-term value of a company's investment in R&D. Richard Evans has attempted to value what was perhaps measurable, yet ignored."

Richard Galiardo, Director of Pan-European Research

According to Sanford Bernstein "drug stock valuations arguably consist of both tangible and intangible components; tangibles being things about which we can gather objective data and accordingly can value rationally; intangibles being assets we know must exist, but about which we have no specific information. In the context of drug stocks, tangibles are marketed and very late stage (phase III) products; intangibles are research and development projects in phase II or earlier - in essence from phase II all the way back to emerging brainstorms."

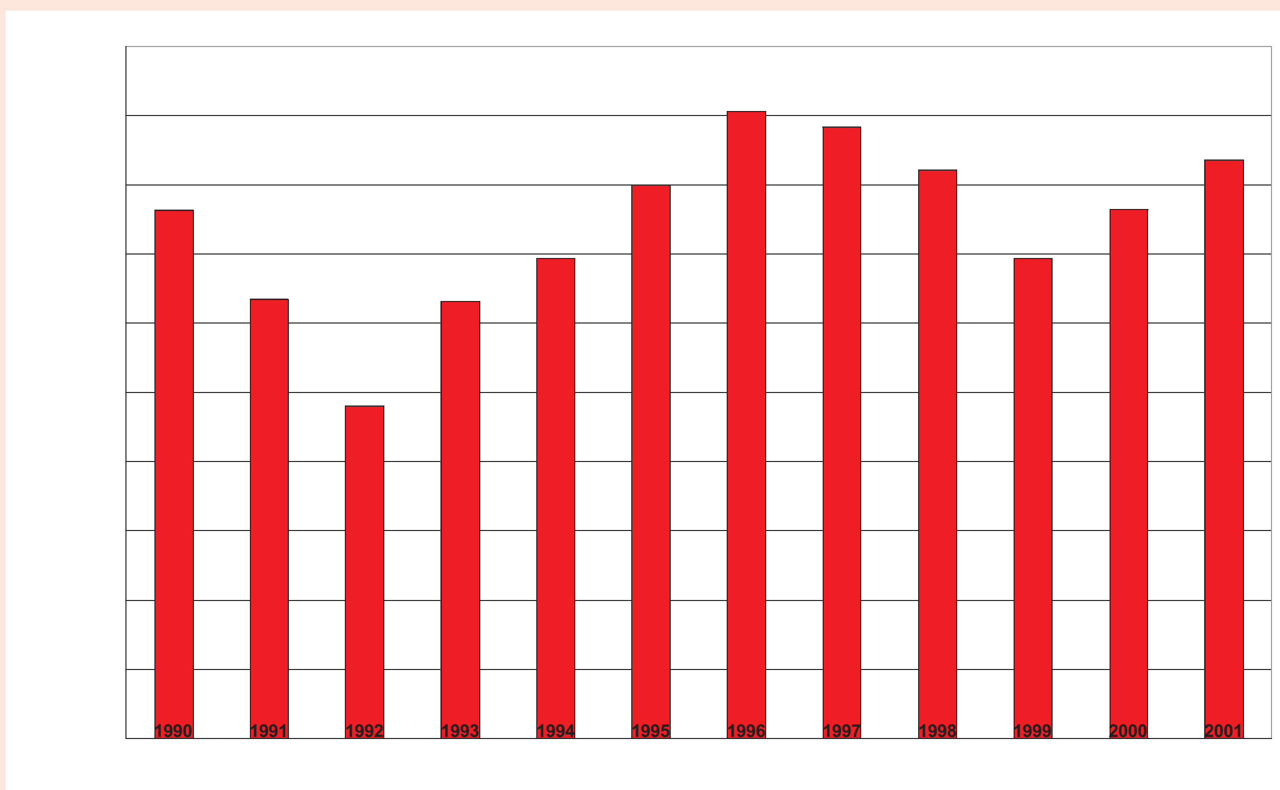
The Integration of R&D into Valuations

Sanford Bernstein's approach to quantifying the contribution of R&D to company profitability furnishes investors with a model for effectively embedding the probable value of R&D into stock prices. First, it measures the payoff from R&D by subtracting from patent protected industry profits the amount of profits companies would have earned if they sold simply generic products. Second, by applying generic companies' PE multiples to the profits branded companies would have earned without patents, it determines the market capitalisation brand companies would have had absent the exclusive positions attributable to R&D. Finally, it subtracts this from actual brand market capitalisation to leave the portion of brand company capi-

talisation attributed to the exclusive products of R&D.

Bernstein has found that that the stock market ascribes around 75% of pharmaceutical companies' valuations to the profits derived from R&D (see Figure 3, following) and that, on average it takes 10 years before the benefits of R&D materialise in income statements.

Figure 3: The market capitalisation of pharmaceutical companies attributable to the profits derived from research and development



Using its approach, Bernstein has also been able to calculate the long-term trend of R&D productivity in the pharmaceutical industry and has equipped itself and its clients with the capability to make reasoned assumptions with respect to future productivity and the value that investors should ascribe to it.

Perhaps not surprisingly, given the long-term nature of Bernstein's research, it detected significant risk in the safety profile of VIOXX one year in advance of the product's withdrawal from the market because of serious cardiovascular side effects. And, as far as EAI members are aware, it was the only broker that lowered its price target on Merck, the manufacturer of VIOXX, ahead of the dramatic fall in its valuation when the news leading up to the withdrawal broke.

Whilst far from commonplace, analysis of R&D is perhaps the obvious intangible to start with. It will be interesting to see if Bernstein or other houses will be able to integrate analysis of factors, which are less easy to quantify and which are clearly of critical business importance in this sector including. These include, inter alia, trust in the brand, alignment of executive compensation with business strategy, and exposure to emerging markets.

2. DEUTSCHE BANK CORPORATE GOVERNANCE RESEARCH

"The influence of corporate governance standards on a company's long-term equity performance is beyond doubt. Incorporating these risk metrics into the investment decision-making process is a necessary - and ultimately - profitable step for portfolio managers."

Gavin Grant, Director Global Corporate Governance Research

Deutsche Bank defines corporate governance as the means by which equity investors assure themselves of an equitable and adequate return on their investments. The firm has been reporting on the link between corporate governance and stock prices for over five years and has researched the performance of over 2,000 companies across the UK, Continental Europe, the US, South Africa and emerging markets in this regard.

It has two objectives in doing so. As befits the context, the first of these is to present the key corporate governance factors for a company in a straightforward, easy-to-use format. And the second is to seek to measure the link between corporate governance and equity price performance.

Beyond the Numbers

Deutsche Bank has identified 50 factors relevant to the incorporation of corporate governance into investment decisions. It splits these into the four pillars shown below and rates the factors in each against best practice, and according to their materiality with respect to financial and stock market performance.

Pillar of Governance	Principles
Board Independence	Separation of chairman from CEO Majority board independence Independence of board committees
Shareholder Treatment	One share one vote No shareholder agreements No anti-takeover mechanisms
Information Disclosure	Procedural transparency Defined and appropriate auditor interests Comprehensive shareholder resolutions
Executive Remuneration	Simple and transparent structure Management and shareholder interests aligned All remuneration policy changes approved by shareholders

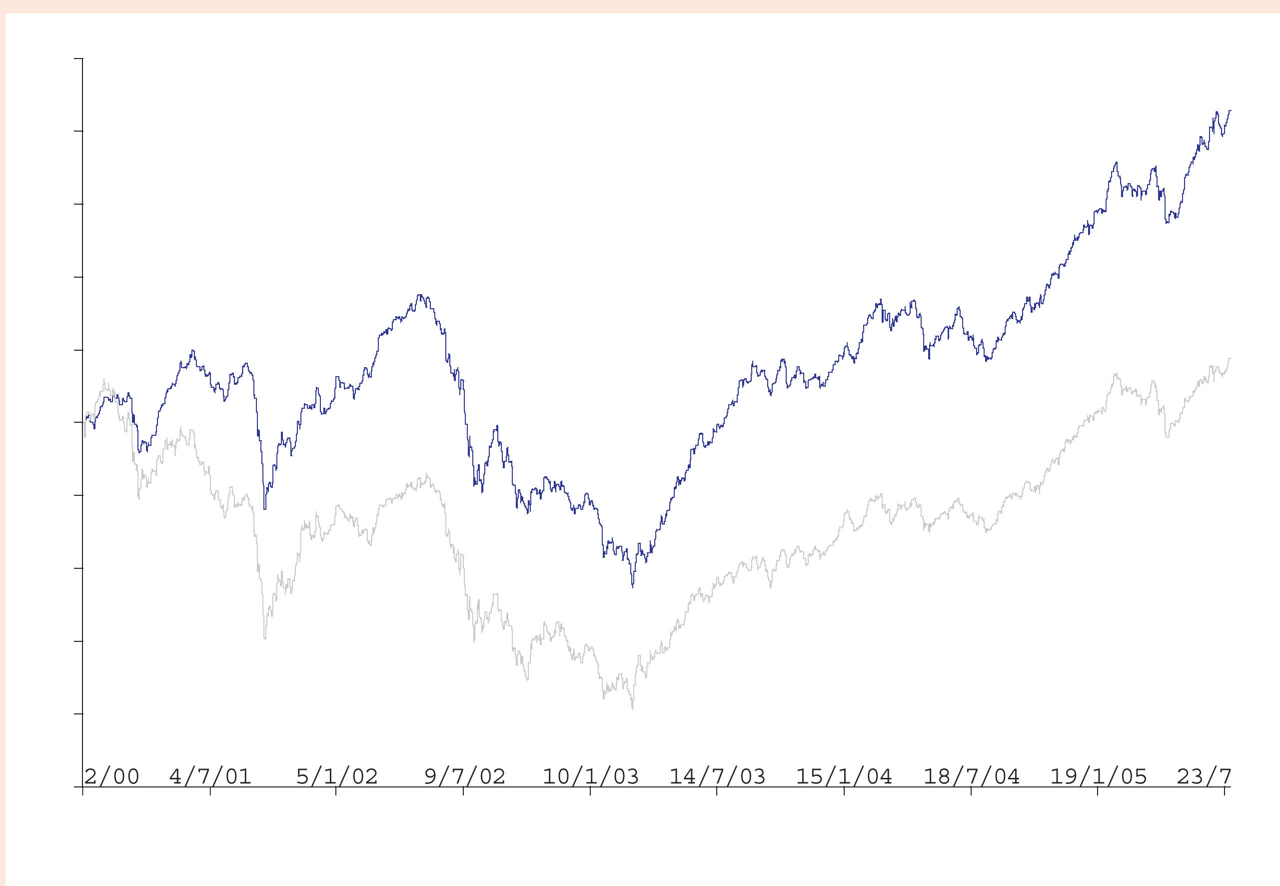
Deutsche Bank is mindful of the need for transparency in its research and documents each of the 50 factors it includes in its analysis, together with notation that indicates the weighting in its model.

Finally, it presents the product of its analysis along side the results of 'fundamental' research in a format that quickly summarises its assessment of a company's corporate governance; its ranking against market averages, the rate of change in governance against the market average, and how the company's governance standards relate to corporate valuation and corporate profitability.

As shown in Figure 4, which compares the performance of the top quintile of stocks rated by Deutsche Bank for standards of corporate governance against the bottom quintile, the firm has found clear and consistent evidence in favour of its method of incorporating standards of corporate governance into investment decisions.

The firm is now embedding its governance model into notes on sectors and on individual stocks to create a "seamless" link with its more traditional approach to analysis. Reflecting growing competition for the commended category, Deutsche Bank was not included in the list at EAI's last evaluation in January 2006 having been included in previous rounds. As the integration that is planned is seen in its mainstream written notes, it highly likely that Deutsche Bank would, once again, return to EAI's top rated category on the back of this valuable, but currently at least, largely stand-alone service.

Figure 4: Absolute performance of historical corporate governance top quintile vs. bottom quintile portfolios (December 2000 - July 2005)



Source: Deutsche Bank Corporate Governance Research, PIRC, and Bloomberg

3. CITIGROUP METALS MINING RESEARCH

"The consensus view is that mining is less risky in countries where political systems are stable and transparent. In this respect, mining has been viewed as any other business or investment activity and as such the financial community has relied on bond markets as the key indicator of risk and driver of valuations. Our analysis suggests that risk is more company-related, than country dependent. Two mining companies operating in the same country could have substantially different discount rates based on; the commodities extracted, mine development, the ability to control HSEE in operations and sustainable governance."

Heath Jansen, Director Metals and Mining Research

Although Citigroup has not been previously ranked in EAI's top category, the organisation has set up a specialist unit and significantly increased its coverage of extra-financial issues. It would therefore seem to be a strong candidate for being rated favourably in the future, although the competitive nature of EAI's evaluation process makes it (intentionally) hard to predict this.

Citigroup's metals and mining research is premised on the notion of translating sustainable development issues into conclusions which have real investment implications.

Its research looks beyond the list of the traditional factors used on a sustainable development basis in this sector, such as environmental pollution, health, safety and human rights, to consider, under five headings, the broader range of factors shown in the table below that have the potential to add or destroy value for metals and mining companies, and thereby for investors.

Commodities Exposure	Country Exposure	Mine Development	HSEE	Sustainable Governance
Recycling Product life cycle Emissions Energy use Health Safety Environmental impact	Bond rating Corruption Terrorism Sovereign risk Legal & Regulatory Political interference Supply chain vulnerability	Corruption Track record on HSE & human rights Stakeholder engagement Land access Mine closures	Resource usage Risk management Waste management Pollutant emissions Workforce diversity & remuneration Health and Safety	Management commitment Strategic outlook Integrated management systems Risk management Innovation Transparency

The Citigroup Sustainable Mining Index (CSMI)

By combining these factors the firm has created the Citigroup Sustainable Mining Index to evaluate how metals and mining companies conduct their business relative to sustainable development priorities and to identify those companies that are best positioned to create value from sustainable development, and those which are at risk of destroying value. It has also derived alternative discount rates for the valuation of companies which incorporate sustainability risk.

Expanding the list of variables that normally get attended to in investment decisions:

- Commodity exposure measures the influence of sustainability considerations on the supply and demand for individual commodities.

- Country exposure looks beyond bond market ratings of risk to incorporate insurance and corruption indicators.

- Mine development measures the improvement in normal development lead times that a company can expect from integrating sustainable issues into its capital allocation.

- HSEE captures the wide range of sustainability issues that contribute to the overall operating efficiency of a mine, which can be attributed to cost management and risk reduction.

- Sustainable governance measures the degree to which good practice lessons from projects can be replicated across a company's portfolio.

Citigroup and its clients are able to conduct sensitivity analyses in order to determine the effect that these factors might have on bottom line numbers, according to the variable discount rates that might attach to them. Naturally, there are debates to be had about such weighting decisions and the quality of the data on which comparative assessments are made. But without a baseline against which annual performance can be measured, there can be no learning from the model or adaptation of the model.

Whilst the CSMI approach did not engender any recommendation changes in the metals and mining sector, it did induce Citigroup to lower its weighted average cost of capital assumptions for the large diversified miners of BHP, Rio and Anglo, and this increased its valuation estimate for those stocks in support of prior positive recommendations. The approach also supported the firm's sell recommendation on Kazakmys and flagged additional risks with the mining company.

4. GENERATION INVESTMENT MANAGEMENT LLP

Generation Investment Management is an independent employee-owned partnership that invests in public global equities with a concentrated portfolio of 30-50 companies. Sustainability research plays an important role in forming the firm's views on the quality of the business, the quality of management and equity valuation, and its approach is exemplified in the firm's investment in the shares of the asset management firm, T. Rowe Price.

The T. Rowe Price Investment

In considering whether to invest in an asset management firm, Generation considers investment performance of the firm's strategies, its brand and its access to clients, the client type and its products. To the admission of David Blood, a managing partner at Generation, all of these factors reflect mainstream thinking about the valuation of such firms. "Probably every analyst and research provider will consider these issues," says Blood. And they also reflect a focus on what might be considered the salient factors in the equation for value. Do the firms distribute on a retail or wholesale basis? Do they distribute domestically or internationally? What proportion of the firm's funds have 4 or 5 Morningstar ratings? Are there any capacity issues in the funds that are attracting inflows? Etc.

"Where we begin to veer off the path"

In addition, Generation places emphasis on human capital management practices. It looks at how fund management companies attract and retain employees. It measures staff turnover and investment in the training and development of the staff. It also tests compensation programmes to see if they promote investment

results as well as encourage team work and communication. It wants to see remuneration spread more evenly across the firm and it wants to ensure that a firm's compensation programme is just one of element of a human resource strategy that straddles several dimensions.

Generation also considers the company's investment and corporate culture and its ethics. This was particularly relevant in 2003/4 when a series of scandals tarnished the reputation of certain players in the industry and sparked a migration within their client base.

"We *knew* that T. Rowe Price's management philosophy and ethics were of an extremely high standard," says Blood. "We therefore expected that the quality of T. Rowe Price's people, their integrity as an organisation and their commitment to their clients would lead to an increasing market share. And indeed, that is what's happened."

What the market was missing

Generation does not classify the variables it looks at under labels such as 'soft issues,' 'SRI,' or 'extra-financial.' It simply commits to researching any factor it deems material to long-term business success. Accordingly, Blood maintains that Generation's focus on human capital management and firm culture as a source of competitive advantage in the asset management industry is "really just common sense."

"But," he continues, "while the beneficiaries from the scandals should have been obvious to the market, it wasn't obvious at the time to those who had a narrow perspective on corporate success and failure."

He also asserts that Generation's focus on human capital management as a driver of business success allows it to understand the contribution this factor makes to stock market performance in a way that others do not. And his hope for EAI is that it will encourage written research that delves beneath current results to explore the organisational elements that have to be in place in order to deliver those results.

PART THREE:
A PARTNERSHIP FOR INVESTING

"Investors want a new deal before they come back in number; so the clear message is: Say what you mean, mean what you say, and deliver it."

Amin Rajan and David Ledster [47]

Thus far, long-term investing based on a broader perspective of corporate success and failure, has been crowded out by human tendencies that naturally exist in the investment management industry: be these a focus on salient data or the illusion of control contained in short-term investing and its rule-of-thumb approach.

In order to change this state of affairs, investing needs to be founded upon an *informed partnership*. For their part, and as one - albeit a critical - component of this re-think, EAI's members recommend that extra-financial factors are made more salient to investors and that fund managers fulfill their role in changing the way in which investment decisions are made.

Progress to Date

The good news is that there has been significant progress over the last few years in particular. Factors, which hitherto have been classed as extra-financial, such as some corporate governance factors - most recently executive remuneration - are starting to become part of mainstream analysis, breaking through the filters imposed by existing mental models to capture analysts' attention. Arguably the cost of carbon has also made this transition, at least for some of the most affected sectors (e.g. utilities).

Yet much remains to be done.

There is, for example, little anticipatory analysis of the 70% of mergers and acquisitions that either fail to add value or destroy it, even though many senior management consultants in this field are confident that it is possible to define many of the predictive factors for M&A success/failure[48]. And the coverage of human capital factors is also surprisingly weak.

There is, of course, a link with corporate readiness - or more accurately, a lack of readiness - to report on these issues. More than 90% of corporate managers confirm that extra-financial factors are either critical or important drivers of success[49]. Nevertheless, 40% of these managers rate themselves as being average at measuring and monitoring these factors, with 23% describing their ability to do this as being only fair or poor. In a parallel study, McKinsey & Co found that more than 50% of directors admitted to having a limited sense of their company's prospects over the next 5-10 years and only 4% said they fully understood their company's long-term prospects[50].

Clearly there is an information gap within companies and seen in this light, the corporate push back in the UK against the Operating & Financial Review (OFR) is not surprising[51]. Although this debate happened in the UK, this is a global phenomenon and until the internal information gap is addressed, management will not be able to provide quality extra-financial reports to their investors, even if they wanted to.

The UK debate also highlights how some investors and their trade bodies contributed to the abolition of the OFR[52]. Whilst the specifics of who was responsible for the abolition of the OFR will always be contested, what is clear is that investors were less a part of the solution than their clients may have assumed they would have been.

Passive fund managers do not have a business case for worrying about corporate disclosure, all active fund managers believe that imperfect disclosure and market inefficiency benefit them (a logical impossibility) and trade associations have multiple agendas such that better corporate reporting is not a high priority.

In such a context, corporates who want to see more intelligent and long-term investing and who want to cultivate a relationship with their shareholders that frees them to manage the long-term interests of their businesses, rather than their short-term stock prices, will have to play their part in stimulating systemic change[53].

What CEOs Can Do

"Through our policies and communications - our "advertisements" - we try to attract investors who will understand our operations, attitudes and expectations. (And, fully as important, we try to dissuade those who won't)."

Warren Buffett[54]

Many managers are put - or feel - under considerable pressure to manage to the short-term expectations of investors. Duke University academics Graham, Harvey and Rajgopal find, for example, that 80% of managers are willing to engage in uneconomic operating manoeuvres in order to meet an earnings target, with almost half admitting they would reject value creating projects in order to meet analysts' consensus earnings estimates[55].

However, since investors want *all* the companies in which they invest to grow earnings faster than average, they set hurdle rates that are impossibly high in the aggregate. A vicious cycle often emerges in which executives that are known to manage earnings are punished severely when they miss expectations by even a small margin - the assumption being that if they miss a number in spite of managing results, there must be something seriously wrong with the business. Include the risk to personal remuneration (given the importance of TSR/EPS targets for stock options) and the possibility of hostile bids, and it is not surprising that there is such an emphasis on "earnings management".

This state of affairs inevitably works against long-term shareholder wealth creation, occasionally leads to large scale fraud[56] and - in a way which is rarely measured let alone investigated - potentially results in companies externalising costs on to other parts of the economy, society, the environment or future generations, in order to meet consensus expectations of "the number"[57].

Assuming CEOs are serious that they would like to see a longer-term and more informed investment approach, CEOs and CFOs have several steps they can make to step off the treadmill without harming their relationship with the stock market[58]:

- For many investors, believing is seeing. So, CEOs and CFOs who want to change investor belief systems need to talk openly and confidently about the influence that extra-financial factors have on operating performance or other bottom-line financial indicators.

- In this, companies should use their experience of giving good guidance on financial indicators as a model. For example, the analysis of sustainable development metrics, which can be shown to have a financial impact on the firm, reveals that much of the data that companies provide investors are descriptive in nature, and that only around 10% of it is easily used to perform valuation calculations[59]. Recognising the limit of investors' ability to attend to relevant extra-financial information, it needs to be presented in a consistent format that is easy to absorb. It also needs to be accompanied by measurements that are demonstrably trustworthy, which allows for comparison of the same company over time and comparison with other companies in the sector, and - above all - that reflects a clear understanding of the link to financial performance. Most companies are a long way from being able to do this, including those considered leaders in CSR or sustainability reporting, and it is noteworthy that, in an area where joined up thinking is critical, Investor Relations is rarely involved in such reporting.

- Companies also need to communicate with investors on a consistent basis. If *they* appear to attend to accounting-based information, *their investors* are likely to attend to this information. If they appear to be pre-occupied with the analysis and explanation of short-term results, their shareholders will also focus on these. If, however, a CEO or CFO presents a holistic view of corporate performance, which not only acknowledges the role of extra-financial factors but which also repeatedly couches short-term performance in a long-term context, management has a chance of encouraging investors to think in like fashion.

- CEOs and CFOs could also use their influence with their own corporate pension funds to encourage these funds to take a long-term approach to investing, which also incentivises their fund managers to engage with the debate about extra-financial factors.

What Trustees and Consultants Can Do

"Sponsors hire new managers showing large prior positive returns for up to three years. But post-hiring returns are indistinguishable from zero. Managers showing underperformance get fired, but then proceed to produce positive excess returns afterward. If sponsors had stayed with fired managers, their excess returns would have been larger than what they actually achieved."

Amit Goyal and Sunil Wahal [60]

In face of the difficulty of determining whether a fund manager is likely to generate consistent alpha, those who employ and select fund managers can easily latch on to their most recent performance. In turn, this focuses portfolio analyst and manager attention even more intently on the short-term. To break this cycle, it is important that trustees and consultants recognise their part in sustaining it *and* that a fund manager has no objective basis for forecasting the changes in expectations that drive stock prices over the short-term[61].

Equally, they should know that those attempting to forecast changes in expectations on this basis cannot ensure that the feedback they get on the quality of their decisions is accurate[62]. That means they should have no objective expectation of learning from experience.

And, finally, as the practice of short-term investing has evolved into the art of predicting earnings surprises, consultants and trustees should also be aware that elements of the investment management industry have opted for a strategy that is practically impossible to execute. The odds of forecasting corporate results to within 5% of outcomes over four consecutive quarters approximate 1 in 130[63]. To the extent that analysts can forecast accurately over this time period, they do so in a continuous process of revision that sees earnings estimates simply getting closer to outcomes, the closer the reporting period, which is of little use with respect to generating alpha[64]. And Robert Hagin has shown that attempting to exploit analysts' year ahead forecasts is a fruitless exercise since a small number of (unpredictable) inaccuracies in the sample destroy the gains to be had from the strategy[65].

The good news is that there is now an active debate amongst asset owners concerning the appropriate response of trustees and consultants to these issues[66]. The way forward is to be smarter and tougher on how critical business risk/reward issues (including benchmarks, fees, etc) are negotiated at the outset and how they are monitored during the period of the contract. Inter alia, this suggests that trustees and consultants should:

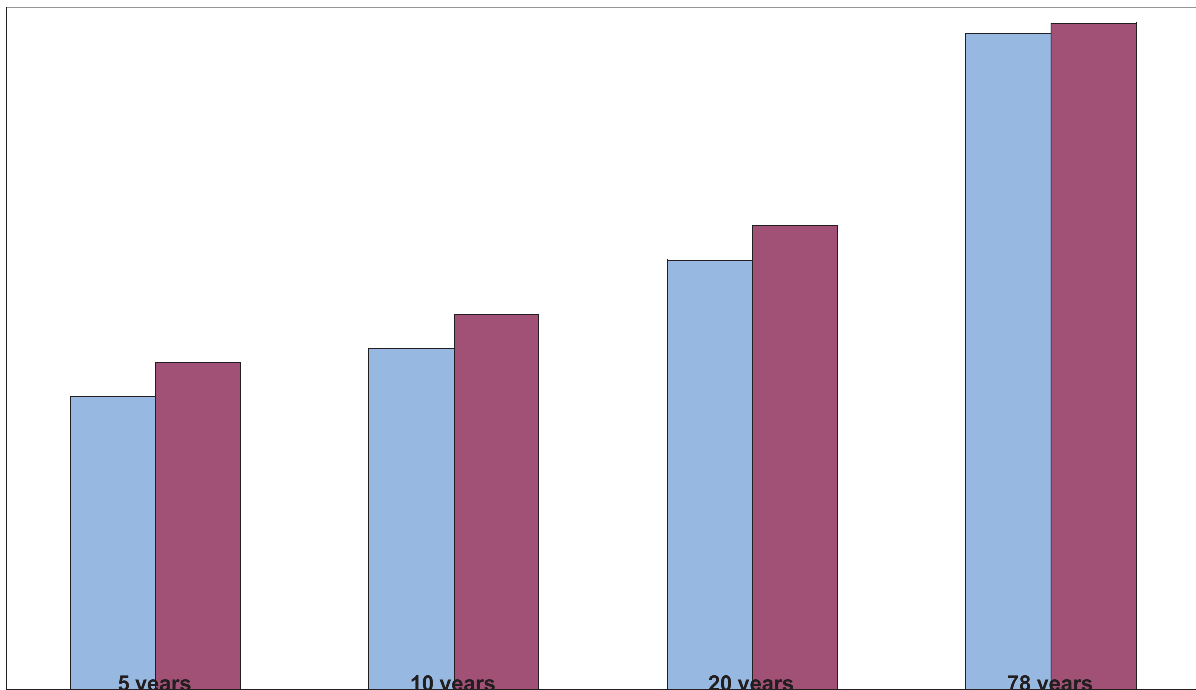
- Look beyond facades and easy to manipulate "process" information for real evidence that investment is premised on a systematic integration of all relevant data. This is critical given that the mental simulations that investment decision makers run tend to rely on rarely more than three factors[67].

- Ensure that quality data are being obtained with respect to extra-financial factors - being content only when investment professionals are exposing themselves to everything that diversity has to offer, rather than predefining sufficient diversity - and review the models used for incorporating those data into valuations and buy/sell/weighting decisions.

- Build the resource or develop the tools that will better enable them to identify the coping strategies fund managers require in order make rational decisions in a complex system.

- Find some "hard" indicators of short-termism that they understand and have confidence in and compare fund managers on these indicators. No single indicator should be trusted to be perfect but together they will give you a picture of the real mental models that underpin a fund manager's decision making. Indicators worth testing include: churn rates in portfolios; voting patterns (in particular on remuneration packages); and whether the investor is focused on capital gains or income. Since short-term investors expect to derive the bulk of their returns from capital gains[68], they ignore one of the most important facts of investing: that the income component of the return from equity investing is large, and increasing over the duration of holding periods, as shown in figure 5.

Figure 5: Income component of total returns over rolling periods: 1926 - 2003



Clients of the fund management industry also have to recognise that fund management only excels in the presence of a trust that encourages fund managers to focus on what is *likely* to happen (the balance of probabilities), rather than what *might* happen (the possibilities) in the narratives they construct, and in the absence of unnecessary stress. That is because the fund manager who is unsure of his position is most likely to gravitate towards making those decisions that can be most easily defended after the fact - *in case he gets them wrong* - and because in the presence of stress fund managers are unlikely to access all the information available to them in making their decisions[69]. Since trustees are by definition non-executive and lay people, a key factor in defining their ability to engage on the above kind of agenda is their choice of internal executive and or external adviser[70].

What Unions Can Do

Arguably the wild card in the pack is the trade union movement. Recent legislation requires all occupational pension funds to appoint member nominated trustees. In the UK alone unions now have the potential to influence in excess of £800bn in pension fund assets and, internationally, trade union members who are trustees are involved in the investment of several trillion pounds of assets[71].

To date, union efforts in the investment arena have been mostly directed at what might be described as 'symptoms' of the system including specific "problem" companies (e.g. RioTinto, Safeway and Wal-Mart) or aspects of how the system works (e.g. lack of disclosure of proxy voting). Although this work has been effective enough to provoke a corporate backlash in the US[72], the systemic impact of this approach has been less obvious, not least because such work has often by-passed the normal investment chain, which has continued sending the signals it always has.

Whilst union trustees may be increasingly willing to challenge fund managers on their voting and engagement activity in relation to investee companies, to date

at least, they have been less willing to challenge the underlying structure of pension fund investment, including the role and nature of investment analysis and the part played by trustees[73]. In many countries, when it comes to investment matters, unions are often passive observers at best, and occasionally fall back into old rhetoric against "shareholders" that demonstrates a failure, or unwillingness, to grasp the true nature of the modern investment system and the positive role unions, and union trustees, could play within it.

There are, however, promising signs that unions are beginning to take a more systemic approach to reforming the investment system. A recent report from the Trades Union Congress in the UK includes an assessment of investment analysis and how it might be improved[74]. The report recommends unions support the EAI; the TUC's own pension fund is already an associate member and the news that the CPP Investment Board had become a member was given a positive response by Ken Georgetti, President of the Canadian Labour Congress. Trade Union support for EAI would also appear to be spreading to the Continent.

Although as yet small steps, if unions continue to develop their thinking and practice in pension fund investment they could become important proponents of systemic change. A more informed trade union movement has the chance to focus on the systemic causes of why company management adopt a short-term approach and why they are so keen to externalise labour and other costs.

A BETTER WAY

"Our governance structures are faltering. If the business community cannot get its house in order, regulators and legislators will seek to do so. I applaud EAI's efforts to bring these issues to the fore, through the invisible hand of the economy, rather than waiting for misguided regulation and legislation to effect change."

Robert Arnott [75]

A customer base that is interested in financial performance *and* the way in which that performance is generated already exists for a new generation of investor that is able to make use of extra-financial factors in investing.

Moreover, there are strong grounds for anticipating significant growth in this market. Regulators are creating mounting pressure for change. There is much positive momentum as trustees and investment consultants update their understanding of what fiduciary good practice means in the 21st Century[76], and some investment consultants are already making clearer distinctions between the nature of investment processes, which allows their clients to make a more informed choice. Above all some of the best respected and largest owners of assets and investment managers are now moving in this direction[77].

By configuring investment management upon an informed and "adult to adult" partnership, the new generation of investor, that this papers refers to, can emerge, which is able to make use of extra-financial factors in investing.

The "Additional" Prize

And, of course, there is also an "additional" prize on offer for the fund managers who seize this opportunity. They can know they are playing their part in presenting signals to corporate management that enhance the system-wide allocation of capital, and which provide for better long-term and sustainable investment returns. As Knut Kjaer, executive Director of the Norwegian Government Pension Fund says; "Investors must collaborate to support well-regulated markets and sustainable development."

Properly done, the incorporation of extra-financial factors into investing is unambiguously welfare enhancing, with potential gain coming from three sources[78]:

- There is a productivity effect that sees return on capital enhanced through more efficient capital allocation;
- There is a growth effect that sees higher productivity feed through to economic growth through the reinvestment of higher corporate profits; and
- There is a risk effect, which sees a reduction in business risk feed through to a lower cost of capital - which has associated production effects through the mobilisation of capital to productive use that would otherwise be allocated/deposited elsewhere.

These effects can be expected to raise the equilibrium levels of economic growth and return on capital to a higher level - so that the gains from incorporating extra-financial factors into investing are permanent. And, in a properly functioning financial market these welfare gains should be quickly factored into higher asset prices.

For asset owners who are focused on their liabilities and *the purpose* for most investment - the quality of retirement life of their beneficial members or customers - this is no small additional benefit, even if it is one which is hard to measure and currently not well valued in the investment chain. As some fund managers come to accept that they are corporate citizens in their own right, and that they have responsibilities to discharge, client awareness of what they should be expecting from their service partners will grow.

In this way, the new generation of investors will set the benchmark for its peers.

And, by systematically integrating all relevant variables into their decision making, the 'extra' in extra-financials will finally be dropped from the lexicon of investing.

EAI MEMBERS AND ASSOCIATE MEMBERS AS OF MAY 2006

Full members

ABP Investments (Netherlands)

AGF Asset Management (France)

BNP Paribas Asset Management (France)

CPP Investment Board (Canada)

Dresdnerbank Investment Management (Germany)

Generation Investment Management LLP (UK/USA)

Hermes Pension Management Ltd. (UK)

Investec Asset Management (UK/RSA)

PGGM (Netherlands)

RCM (UK), Deutscher Investment Trust (Germany)

SNS REAAL Groep (Netherlands)

Sogeposte (France)

Universities Superannuation Scheme (UK)

Associate members

BT Pension Scheme (UK)

Calvert (USA)

LPFA - The London Pensions Fund Authority (UK)

Mistra (Sweden)

Trades Union Congress (TUC) Superannuation Society (UK)

ENDNOTES

1 William H. Donaldson: Remarks to the CFA Institute Annual Conference Philadelphia Pennsylvania, 2005

2 For evidence that institutional investors tend to buy stocks with positive prior year returns see, for example, Fang Cai, Gautum Kaul & Lu Zheng: "Institutional Trading and Stock Returns," University of Michigan Business School, December 2001

3 John R. Graham, Campbell R. Harvey and Shiva Rajgopal: "The Economic Implications of Corporate Financial Reporting," ssrn.com, January 11, 2005

4 Robert D. Arnott: "The Fiduciary Time Line: Implications for Asset Allocation," "Financial Analysts Journal, March/April 2006, Vol 62, No 2: 8-10

5 For a parallel paper for passive or universal investors on the importance of extra-financial factors (i.e. the beta and engagement/activism link), see Raj Thamotheram and Helen Wildsmith: "Putting the Universal Owner Hypothesis into Action: Why large retirement funds should want to collectively increase overall market returns and what they can do about it," unpublished, April 2006. Email Helen@105.org.uk for copy)

6 Charles T. Munger, in Peter D. Kaufman (ed): "Poor Charlie's Almanac: The Wit and Wisdom of Charles T. Munger," PCA Publications, L.L.C., 2005

7 Robert A. Olsen: "Professional Investors as Naturalistic Decision Makers: Evidence and Market Implications," The Journal of Psychology and Financial Markets 2002, Vol. 3, No. 3, 161 - 167

8 Efthimios Demirakos, Norman Strong and Martin Walker: "What Valuation Models Do Analysts Use?," Accounting Horizons, Vol. 18, No. 4, 221 - 240, 2004

9 Mark T. Bradshaw: "How Do Analysts Use Their Forecasts in Generating Stock Recommendations?" Harvard University, December 2000

10 Mark T. Bradshaw: "Analysts' Reports, Target Prices, and Stock Recommendations," Working paper, Harvard University, December 2000. See also R. Barker: "The role of dividends in valuation models used by analysts and fund managers," The European Accounting Review 8 (2): 195 - 218, 1999

11 R. Barker: "The role of dividends in valuation models used by analysts and fund managers," The European Accounting Review 8 (2): 195 - 218, 1999

12 A. Mack and I. Rock: "Inattentional Blindness," Cambridge, MA: MIT Press, 1998. One sell side analyst has made the following comment: "Strategic research on future social and environmental risks and opportunities got me my five minutes of fame. But there were no buyers for the work, and this is what counts at the end of the day. Given the choice again, if I want to stay in business, I would not do such research." http://www.weforum.org/site/homepublic.nsf/Content/

13 Robert Olsen

14 PricewaterhouseCoopers: "Knowing the price but also the value? Financial analysts on social, ethical and environmental information."

15 See Richards J. Heuer, Jr.: "Psychology of Intelligence Analysis," Center for the Study of Intelligence, Central Intelligence Agency, 1999 and Robert Olsen

16 Alfred Rappaport: "The Economics of Short-Term Performance Obsession," Financial Analysts Journal, Volume 61, No. 3, 2005

17 By kind permission of Mr. Buffett, taken from Warren E. Buffett: Letter the shareholders of Berkshire Hathaway, 1987

ENDNOTES

18 See, for example: Mark T. Bradshaw, Scott A. Richardson and Richard G. Sloan: "Do Analysts and Auditors Use Information in Accruals," Journal of Accounting Research, Volume 39, No. 1, pp 45- 74, June 2001

19 A list of EAI members and associate members appears on page 35.

20 Robert Olsen

21 Reflecting the stage of development, there are many terms currently being used to describe this kind of reporting: MD&A; management commentary; forward-looking; corporate health; enhanced business; extra-financial; non-traditional; non-financial; ESG (environmental, social & governance). Each term has its own advocates and opponents and reflects the polarisation between shareholder value advocates (who are interested in narrative commentary on forward-looking aspects but not ESG reporting) and stakeholder advocates (who want to see detailed ESG reporting and are less interested in forward-looking agenda). The way the OFR debate in the UK evolved is a consequence of this polarisation. If there is a shift towards enhanced analysis, there would then be a constituency in favour of a "middle way" - namely reporting suited to long-term owners, where material extra-financials are addressed in a more rigorous way than simple narrative commentary (i.e. with key performance indicators).

22 Jay Dahya and John J. McConnell: "Board Composition, Corporate Performance, and the Cadbury Committee Recommendation," March 2006, ssrn.com

23 Leonard Nakamura: "Investing in Intangibles. Is a Trillion Dollars Missing from GDP?" Federal Reserve Bank of Philadelphia, Business Review, Q 4, 2001

24 Tim Gardner, Global Practice Leader, Mercer Investment Consulting, has noted that awareness of extra-financial issues has the potential to become a self-fulfilling dynamic - that it raises the bar for social responsibility, which in turn raises the cost of capital for riskier firms and creates a financial reward for "good" firms.

25 See, for example: David Aboody and Baruch Lev: "Information Asymmetry, R&D, and Insider Gains," The Journal of Finance, Vol. LV, No.6, December 2000

26 Kent Daniel and Sheridan Titman: "Market Reactions to Tangible and Intangible Information," May 24, 2001, ssrn.com

27 Nadja Guenster, Jeroen Derwall, Rob Bauer and Kees Koedijk: "The Economic Value of Corporate Eco-Efficiency," 2005 Academy of Management Conference Paper

28 Paul A. Gompers, Joy L. Ishii and Andrew Metrick: "Corporate Governance and Equity Prices," Quarterly Journal of Economics 118(1), February 203, 107 - 155

29 Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny: "Investor Protection and Corporate Value," Working Paper, Harvard University, 2001

30 Guenster et al

31 Bruce Pfau: "Watson Wyatt's Human Capital Index: Human Capital as a Lead Indicator of Shareholder Value." Watson Wyatt Worldwide, 2001

32 Laurie J. Bassi, Paul Harrison, Jens Ludwig, and Daniel P. McMurrer. "The Impact of U.S. Firms' Investments in Human Capital on Stock Prices." Working Paper, June 2004

33 Alison Thomas, PricewaterhouseCoopers: "A Tale of Two Reports," EBF, issue 16, winter 2003/4

34 G. Bennett Stewart: "The Quest for Value: The EVA Management Guide," Harper Business, 1991

35 G. Bennett Stewart

ENDNOTES

36 Ian Davis: "How to escape the short-term trap," The McKinsey Quarterly, Web exclusive, 2005. See also Michael Mauboussin: `http:/www.capatcolumbia.com` for a discussion.

37 See Norman L. Johnson: "What a Developmental Perspective Can Do for You," Credit Suisse First Boston Thought Leader Forum, Santa Fe, September 2000

38 James Suroweicki: "The Wisdom of Crowds: Why the Many are Smarter than the Few, and How Collective Wisdom Shapes Business, Economies, Societies and Nations," Doubleday, 2004

39 Michael Steinhardt: "No Bull: My Life in and out of Markets," New York, John Wiley and Sons, 2001

40 PricewaterhouseCoopers

41 Hence the EAI's counter-intuitive features of not listing the issues that brokers should cover and its exclusion of bespoke research from the evaluation process. The EAI's independent evaluation process only considers written research which is widely available to the buy side. It does not consider bespoke research or verbal briefings. This does not mean that EAI's members do not individually reward such work; simply that it is not part of the research that is evaluated.

42 The authors are grateful to analysts and fund managers from F&C, Henderson Global Investors, GE Asset Management and ABP for sharing data on this issue.

43 The current definition of fiduciary duty is coming under unparalleled scrutiny. The report by Freshfields - "A legal framework for the integration of environmental, social and governance issues into institutional investment", 2005 - concludes that there are no fiduciary grounds for excluding extra-financial analysis if it is material.

44 Robert Rubin, Former Secretary of the Treasury of the United States: Commencement Day Address, June 7th, 2001, `http://www.commencement.harvard.edu/2001/rubin.html`

45 Innovest's North American Insurance Sector Report (June 2005) is a good example of its approach. The report highlights the marked increase in the financial and competitive significance of extra-financial factors in the industry and two major risk issues as climate change and emerging markets exposure. As is common with most specialist research providers, this report does not go the final step and integrate the analysis with financial data. But once specialist providers do this, either as independent entities or in partnership with traditional analysts, it is likely they will give the traditional sell side stiff competition.

46 "When social issues become strategic: Executives ignore sociopolitical debates at their own peril," Sheila M. J. Bonini, Lenny T. Mendonca, and Jeremy M. Oppenheim, McKinsey Quarterly, 2006 Number 2

47 Amin Rajan and Barbara Martin (CREATE) and David Ledster and Neil Fatharly (KPMG): "Revolutionary Shifts, Evolutionary Responses: Global Investment Management in the 2000s," June 2003

48 Scott A Christofferson, Robert S McNish and Diane Sias: "Where mergers go wrong," The McKinsey Quarterly, 2004 Number 2

59 Deloitte LLP and the Economist Intelligence Unit: "In the Dark: What boards and executives don't know about the health of their business."

50 "The view from the boardroom: a McKinsey survey of directors shows that they're tired of playing defense," Robert F. Felton and Pamela Keenan Fritz, 2005 special edition: Value and performance, McKinsey Quarterly

51 Sean Brierly: "Labour carries the can in OFR debacle," Finance Week, 8 February 2006

52 UK government meeting notes released to FoE as part of pre-action response

ENDNOTES

53 In response to the abolition of the OFR, several investors and others came together to lobby the Government to hold on to the best of the OFR project through a proactive voluntary approach. No corporations signed the letter. In a follow on project with the IASB on its "management commentary", one corporation to their credit - BP plc - signed. For details see http://www.tomorrowscompany.com/

54 By kind permission of Mr. Buffet, taken from Warren E. Buffett: Letter to the Shareholders of Berkshire Hathaway, 1983

55 Graham, Harvey and Rajgopal

56 Frank Partnoy: "Infectious Greed: Restoring Confidence in America's Companies," Financial Times Prentice Hall, 2003

57 Michael Blowfield, http://www.law.uiuc.edu/conferences/capitalmarkets/pdf/blowfield.pdf

58 James O'Loughlin: "Seven Steps to a Cure: Managing Market Expectations the Warren Buffett Way," forthcoming in Business Voice. Julie Froud, Sukhdev Johal, Adam Lever and Karel Williams point out in "Financialisation and Strategy: Narrative and Numbers," Routledge, 2006, that large company strategy has changed radically in nature since the 1980's, from considering how to compete in product markets to how to maintain the support of financial markets.

59 Yachnin & Associates, Sustainable Investment Group Ltd, and Corporate Knights Inc.: "The sdEffect™: Translating Sustainable Development into Financial Valuation Measurables," copyright Yachnin & Associates and Sustainable Investment Group Ltd. 2005, 2006

60 Amit Goyal and Sunil Wahal: "The Selection and Termination of Investment Management Firms by Plan Sponsors," unpublished manuscript, quoted by Peter L. Bernstein: http://www.peterlbernsteininc.com/. Watson Wyatt ("Whatif?" November, 2005: "Hiring and firing fund managers: An excellent opportunity to destroy value"), makes a similar observation based on UK data and, interestingly, suggest that fund manager selection can be improved by the incorporation of qualitative analysis of non-financial factors in manager appraisals.

61 Keith Ambachtsheer: "Beyond Portfolio Theory: The Next Frontier," Financial Analysts Journal, Jan - Feb 2005

62 James O'Loughlin: "The Real Warren Buffett: Managing Capital, Leading People," Nicholas Brealey, 2003

63 David Dreman: "Contrarian Investment Strategies: The Next Generation," Simon & Schuster, 1998

64 Scott A. Richardson, Siew Hong Teoh and Peter D. Wysocki: "The Walkdown to Beatable Analyst Forecasts: The Role of Equity Issuance and Insider Trading Incentives," MIT Sloan Working Paper No. 4221 - 01; AFA 2002 Atlanta Meetings

65 Robert L. Hagin: "Investment Management: Portfolio Diversification, Risk, and Timing - Fact and Fiction," John Wiley & Sons, 2004

66 See, for example, the consultation paper from the Marathon Club: http://www.marathonclub.co.uk/publications.htm

67 Gary Klein: "Source of Power: How People Make Decisions," The MIT Press, 2001

68 Rappaport, Alfred: "The Economics of Short-Term Performance Obsession," FAJ, Volume 61, Number 3.

69 Gary Klein

70 With regards to evaluation of fund managers on extra-financial factors there is a clear distinction developing between investment consultants. Mercer Investment Consulting has the highest profile, with three full-time and two part-time staff in this unit and has evaluated 100 fund managers covering all major markets and looking at the full range of ESG

issues (www.merceric.com/ri). This evaluation service is currently offered only on a bespoke basis and not as part of the normal contract although, since Mercers have recently signed to the Principles of Responsible Investment as the corporate body, this may herald further changes. Watson Wyatt has a professional dedicated to this role, with a corporate emphasis on governance as traditionally defined. In addition, its blue-sky team has developed some impressive thought-leadership work on long-termism. Hewitt has been the secretariat for the Marathon Club and as such, it has played a critical role in the consultation paper on long termism. They also have the equivalent of two full-time staff members covering these issues.

71 http://www.workerscapital.org/

72 Jon Entine, "Pension Fund Politics: The Dangers of Socially Responsible Investing", American Enterprise Institute (2005)

73 For example, although unions have been critical of corporate short-termism they may be encouraging it as pension fund trustees. A recent survey of UK trustees found that many believed fund managers put too much pressure on companies for short-term results. The same trustees overwhelmingly supported the proposition that they should be able to terminate fund managers' mandates early for underperformance.

74 As a marker of what may be possible, see "Investment Chains: Addressing corporate and investor short-termism", Trades Union Congress, March 2006

75 Correspondence to EAI: Robert Arnott; Editor, Financial Analysts Journal and one of EAI's new "partners". These are prominent individuals who are not fund managers or asset owners and who cannot join as full or associate members but who, nevertheless, support EAI.

76 "Mainstreaming of SRI", Pension & Investment, Vol. 34, No 3 (6 February 2006)

77 One example is the Principles of Responsible Investment project which was launched on 26th May 2006 with founder members who collectively have assets under management of $4 trillion. See: www.unpri.org

78 The authors are grateful to insights from Helen Wildsmith, Keith Ambachtsheer, James Hawley, Andrew Williams, Linda Selbach, Spencer Glendon, Andrew Clearfield and Keith Johnson on this subject.

Enhanced Analytics for a New Generation of Investor

How the Investment Industry Can Use Extra-Financial Factors in Investing

Layout - Tom Gordon (0771 891 0457)
Print - Production Relief Ltd (www.productionrelief.co.uk)

Enhanced Analytics for a New Generation of Investor

How the Investment Industry Can Use Extra-Financial Factors in Investing

By

James O'Loughlin (JOL Consulting) and Raj Thamotheram (USS), May 2006

For

The Universities Superannuation Scheme (www.usshq.co.uk)