

SAM White Paper

Alpha from Sustainability

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About SAM



“Alpha is created by analysing underresearched, sustainability factors which impact the companies’ long-term value. SAM is the market leader in identifying these factors and integrating them into company valuation to create superior investment solutions.”

Stephanie Feigt, CIO SAM

SAM IN BRIEF

SAM is an investment boutique focused exclusively on Sustainability Investing. The firm’s offering comprises asset management, indexes and clean tech private equity. Its asset management capabilities include a range of single-theme, multi-theme and core sustainability investment strategies catering to institutional asset owners and financial intermediaries in Europe, the United States, Asia-Pacific and the Middle East. Through its index activities, SAM has partnered with Dow Jones Indexes and STOXX Limited for the publication and licensing of the globally recognized Dow Jones Sustainability Indexes (DJSI) as well as customized sustainability benchmarks. Furthermore, SAM is the center of expertise for clean tech private equity within Robeco.

Based on its Corporate Sustainability Assessment, SAM has compiled one of the world’s largest sustainability databases and analyzes over 1,000 listed companies annually. SAM’s proprietary research and sustainability data are fully integrated into its offering.

SAM is a member of Robeco, which was established in 1929 and offers a broad range of investment pro-

ducts and services worldwide. Robeco is a subsidiary of the AAA-rated Rabobank Group. SAM was founded in 1995, is headquartered in Zurich and employs over 100 professionals. As of June 30, 2009, SAM’s total assets amount to EUR 8.9 billion.

ROBECO’S QUANTITATIVE STRATEGIES DEPARTMENT

The research presented in this white paper has been carried out by Robeco’s Quantitative Strategies Department, which is central to Robeco’s investment organization and staffed with around 20 dedicated quantitative researchers with backgrounds in econometrics, mathematics, economics, and physics. Some members are affiliated with universities as assistant or associate professors and regularly publish academic research in renowned academic journals.

The role of quantitative investment in Robeco’s professional investment practice has gained considerable importance in recent years. As of March 2009, Robeco manages more than EUR 11 billion based purely on quantitative models.

SAM’s mission is to be a leader in translating sustainability foresight into outstanding investment results.

SAM White Paper Alpha from Sustainability

EXECUTIVE SUMMARY

- SAM was founded in 1995 as an investment group specializing in Sustainability Investing.
- SAM maintains one of the most comprehensive global databases on Corporate Sustainability.

SAM's Corporate Sustainability data was analyzed by Robeco's Quantitative Strategies Department, which reached the following conclusion:

- There is a positive relationship between Corporate Sustainability and financial performance, as measured by stock returns, demonstrating the alpha potential of SAM's data.
- The investment strategy based on SAM's Corporate Sustainability data delivered positive information ratios in bull and bear markets, highlighting its effectiveness as an all-weather approach.
- The correlation between SAM's Corporate Sustainability data and stock selection criteria such as valuation or momentum is low. The combination of SAM's data with other selection criteria offers diversification benefits.

INTRODUCTION

Sustainability Investing is one of the major topics in the field of finance today, generating an increasing amount of interest among a wide range of investors. And the numbers speak for themselves: the UN Principles for Responsible Investment (UN PRI), an initiative that promotes the integration of sustainability factors into investment decisions, now has signatories representing assets worth more than USD 14 trillion globally.¹ Institutional investors can no longer ignore the importance of sustainability factors.

What is the added value of integrating sustainability criteria into traditional financial valuation models? Can financial performance be enhanced by investing in sustainable companies?

These are the questions to be answered in this white paper. It starts by briefly introducing SAM's research philosophy and assessment process before presenting the results of our latest empirical study, carried out by Robeco's Quantitative Strategies Department.

Can financial performance be enhanced by investing in sustainable companies?

¹ PRI Report on Progress 2008, page 2

Research Philosophy

SAM's Sustainability Criteria Enable a Firm's Intangible Assets to be valued

LONG-TERM APPROACH

Sustainability Investing is a long-term investment approach that integrates economic, environmental, and social considerations into the selection and retention of investments.

So, why consider sustainability in the first place?

In a market economy, the competitive position of a company ultimately determines its potential to create value. Our conviction is that sustainability trends such as climate change, resource efficiency, or demographics have an impact on the environment in which companies compete.

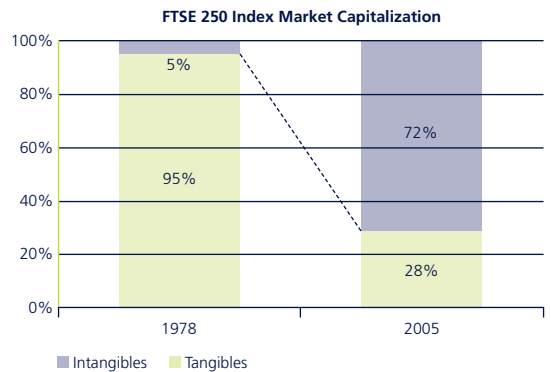
Moreover, capital markets are increasingly aware of the value of intangible assets to the firm. As shown by the following diagram, the average ratio of book value to overall market value has dropped significantly over the past decades; this implies that a firm's ability to grow earnings increasingly depends on intangible assets such as the quality of management, branding power, human capital development, and intellectual capital, to name a few. In view of this fact, it seems clear that investment professionals can

no longer afford to overlook the value of intangibles when performing fundamental analysis. SAM's sustainability criteria act as a suitable proxy for quantifying the value of a firm's intangible assets, leading to better-informed investment decisions.

In a market economy, the competitive position of a company ultimately determines its potential to create value.

THE RISE OF THE INTANGIBLES

Source: Interbrand: Brand Value Management (2006)



By analyzing the sustainability profile of companies, SAM gains additional insights that facilitate the selection of stocks offering the potential for attractive long-term returns, while investing in responsible corporate citizens.

Research Approach

Economic, Environmental, and Social Criteria are included in SAM's Sustainability Analysis

SUSTAINABILITY ASSESSMENT

SAM seeks to identify companies that both:

1. demonstrate a core ability to manage sustainability issues and
2. represent an attractive investment opportunity.

The first step in achieving this goal is to identify the sustainability trends that are likely to have an impact on the creation of shareholder value in the future. Together with its professional network of industry experts and NGOs, SAM then develops a number of criteria designed to assess a company's ability to manage these trends and challenges.

In terms of competitiveness, sustainability performance is of greatest relevance to shareholder value creation when assessed in relative terms. As a result, SAM identifies the leading and lagging companies in each sector. Our screening methodology is based on an assessment questionnaire, with information coming directly from companies.

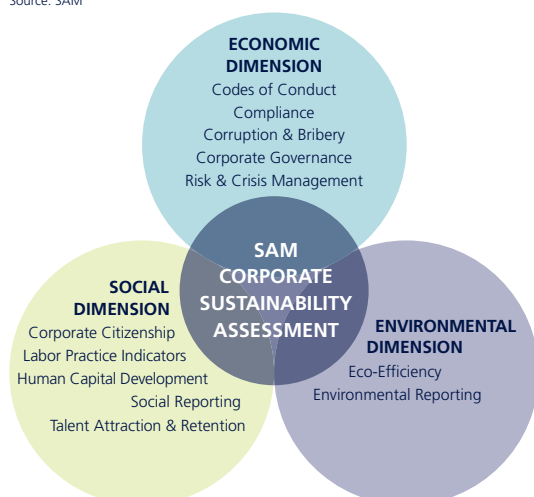
SAM'S SCREENING PROCESS

Every year, SAM invites the 2,500 largest companies worldwide, based on free-float market capitalization, to take part in the assessment. The number of companies that complete this annual survey has been growing steadily since 1999. This assessment is complemented by a media and stakeholder analysis which enables analysts to consider additional information from NGOs and the media. Lastly, our screening process is reviewed on an annual basis by an independent third-party auditing firm.

In terms of competitiveness, sustainability performance is of greatest relevance to shareholder value creation when assessed in relative terms.

GENERAL SUSTAINABILITY CRITERIA

Source: SAM



SAM makes the general section of its assessment questionnaire publicly available on the web.²

² SAM makes the general section of its assessment questionnaire publicly available at the following link:
http://www.sustainability-index.com/07_html/assessment/infosources.html

Alpha from Sustainability

SAM's Sustainability Scores Lay the Foundation for Alpha Generation

OBJECTIVE

This research investigates whether sustainability, as measured by SAM's sustainability scores, has predictive power for stock-picking. In other words, we investigate whether sustainability leaders outperform sustainability laggards, once the main risk factors have been neutralized.

DESCRIPTIVES

Our population sample includes all companies that directly participated in SAM's annual assessment between 2001 and 2008, i. e. a eight-year observation period. Emerging markets and Canada were excluded from this sample for purposes of reconciliation with Robeco's quantitative databases. Our final population sample includes approximately 400 companies for each year.

METHODOLOGY

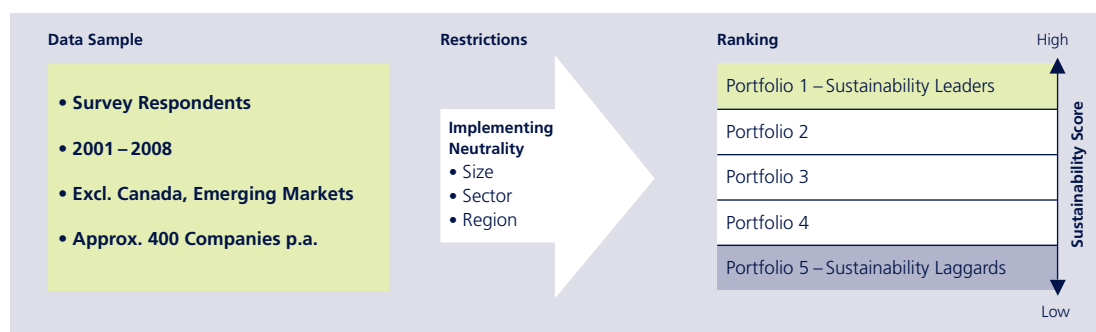
Portfolio construction is performed on the basis of a ranking methodology, which means that our population sample has been split into five individual portfolios containing an equal number of companies. Stocks are allocated to these different portfolios according to their sustainability score. Portfolio 1 is composed of the sustainability leaders and Portfolio 5 of the sustainability laggards.

Portfolios are rebalanced on a monthly basis so as to contain an equal weighting for all companies.

In order to capture the alpha potential of sustainability independently of other risk factors, a number of restrictions have been put in place to neutralize the effect of size, sector, and region.

PORTFOLIO CONSTRUCTION

Source: SAM



RESULTS

The results of the statistical analysis are shown in the graph below. The dark-blue line tracks the cumulative outperformance of Portfolio 1 sustainability leaders versus the overall sample of companies. The turquoise line tracks the cumulative underperformance of Portfolio 5 sustainability laggards versus the

broader sample. The green line tracks the outperformance of an investment strategy that consists of maintaining the sustainability leaders on a long position and short-selling sustainability laggards. The outperformance of the Long/Short Portfolio was accentuated during the credit crisis of 2008.

SUSTAINABILITY CAN OUTPERFORM

Cumulative Log Outperformance in %
Source: SAM



| | Portfolio 1 – Sustainability Leaders | Portfolio 5 – Sustainability Laggards | Long/Short (Pf. 1 vs. Pf. 5) |
|------------------------------------|--------------------------------------|---------------------------------------|------------------------------|
| Outperformance (p.a. in %): | 1.48 | -1.46 | 2.98 |
| Tracking Error (in %): | 3.17 | 3.22 | 4.90 |
| Information Ratio: | 0.47 | -0.45 | 0.61 |
| T-Stat: | 1.28 | -1.25 | 1.68 |

TERMINOLOGY

Outperformance (p.a. in %) refers to the average annualized outperformance of a given portfolio relative to the overall sample of companies (Portfolios 1, 2, 3, 4, and 5).

Tracking Error (in %) refers to how closely a portfolio follows the wider sample to which it is benchmarked, as measured by the standard deviation of the relative stock returns.

Information Ratio = outperformance/tracking error. This is basically a measure of risk-adjusted returns.

T-Stat in this context is a measure of statistical significance.

Conclusion and Discussion

The Results Clearly Indicate a Positive Relationship between Sustainability and Financial Performance

FINDINGS

This white paper has aimed to introduce SAM's research philosophy, which places sustainability at the heart of any fundamental analysis, before presenting the results of the latest empirical study carried out by Robeco's Quantitative Strategies Department. This study is based on data from SAM's proprietary corporate sustainability database, which is one of the most extensive of such databases.

The results clearly indicate a positive relationship between sustainability and financial performance, as measured by stock returns, demonstrating the alpha potential of SAM's sustainability data. This can be illustrated by the positive information ratio (0.5) of the portfolio of sustainability leaders.

SUSTAINABILITY CREATES VALUE

Value is created both from picking sustainability leaders and avoiding sustainability laggards, as shown by the positive information ratio for long/short investment (0.6), a strategy which consists of maintaining the sustainability leaders on a long position and short-selling sustainability laggards.

All three regions (US, Europe, and Japan) have contributed to the outperformance. In addition, the information ratios of the strategy have been positive during bull and bear markets, confirming the additional risk management benefits of incorporating SAM's sustainability data into investment decisions.

The positive relationship between sustainability and financial performance is not artificial, as our statistical models account for the key risk factors that could potentially confound the relationship under investigation, including firm size, sector, and region.

As far as statistical significance is concerned, a t-stat of 1.7 (for long/short) means that we can say with a 90% confidence level, that the performance of this investment strategy is statistically significantly different from 0 (i.e. not caused by chance). A t-statistic of 1.3 (for the portfolio containing sustainability leaders) implies a confidence level of 80%.

The study further revealed that SAM's sustainability data is weakly correlated with stock selection criteria such as valuation (21%) or momentum (17%). The combination of SAM's sustainability criteria with traditional stock selection criteria provides diversification benefits.

DOING GOOD BY DOING WELL

Overall, the findings of this research provide us with credible evidence that firms adhering to sustainability are not contradicting their primary function, which is to maximize the profits of shareholders. On the contrary, it would appear that the puzzle of corporate financial performance broadly encompasses both financial and extra-financial considerations.

Investing in sustainability leaders ultimately contributes to superior long-term investment results with improved risk/return profiles.

Appendix

Linking Sustainability to Financial Performance – a Review of the Academic Literature

BRIEF REVIEW OF ACADEMIC LITERATURE

In recent years, a growing number of academic studies has been dedicated to the subject of sustainability and financial performance. In this appendix, you will find a short overview of basic concepts and research contributions in this field of finance.

For sustainability to translate into financial performance, it must have an impact on either i) the amount of cash flow generated by the company or ii) the cost of external financing to the company (weighted average cost of capital). Free cash flow is a function of revenues and expenses, as well as taxes and reinvestment rates. The weighted average cost of capital is a function of short-term interest rates and the risk premiums a company must pay for acquiring equity, debt financing, and cash.

So, why should sustainability have a positive impact on the financial performance of a firm?

Let us briefly review some of the main theoretical arguments.

MANAGING STAKEHOLDERS

Stakeholder theory predicts that sustainability should have a positive impact on financial performance because firms benefit from “addressing and balancing the claims” of multiple key stakeholder groups.³ On the other hand, constant failure to address the concerns and expectations of those groups will ultimately reduce investors’ confidence in the firm’s stock, impacting its cost of financing (weighted average cost of capital) and thus its profit-making opportunities.

REPUTATIONAL BENEFITS

Sustainability can also lead to certain reputational benefits. Firstly, sustainable firms have a greater ability to attract and retain high-quality employees.⁴ They may also reap benefits in terms of sales, as customers are becoming increasingly sensitive to sustainability issues.⁵ Lastly, an enhanced reputation and brand image can positively affect relationships with current and potential investors, as well as attract trading partners and suppliers.

³Freeman, E.; Evan, W.: “Corporate Governance: A Stakeholder Interpretation”: *Journal of Behavioral Economics*, 19 (4): 337 – 359 (1990)

⁴Turban, D.; Greening, D.: “Corporate Social Performance and Organizational Attractiveness to Prospective Employees”: *Academy of Management Journal*, 40 (3): 658 – 672 (1997)

⁵Russo, M.; Fouts, P.: “A Resource-Based Perspective on Corporate Environmental Performance and Profitability”: *Academy of Management Journal*, 40 (3): 534 – 559 (1997)

Appendix

“Financial performance tells me what a company has already done. Non-financial performance tells me what it is likely to do.”

ENHANCING OPERATIONAL EFFICIENCY

Porter and van der Linde (1995) argue that a firm’s sustainability performance can also be considered as a measure of operational efficiency.⁶ Adhering to sustainability principles, they argue, requires structural changes that may lead to competitive advantages such as technological innovativeness. They claim that environmental best practices, for instance, can trigger innovations which may outweigh the costs of implementing them.

A good example is that of Japanese car manufacturers, who have resiliently pursued energy efficiency in response to a number of trends such as governmental regulation (taxes on fuel and monetary incentives for “clean technologies”) as well as economic developments (rising oil prices). As we can clearly observe today, these companies have gained a considerable competitive advantage as a result of their forward-looking strategic orientation, which is currently being translated into market share gains and earnings growth.

A LONG-TERM PERSPECTIVE

Corporate sustainability can also be seen as a good indication of a firm’s financial viability because it emphasizes a long-term business perspective. In theory, firms that adhere to sustainability principles should outperform those that do not because they prioritize long-term investment opportunities over short-term profits, thus benefiting from more stable earnings growth and less downside volatility.

Also, due to this long-term focus, these firms need to have a much better understanding of how they relate to their competitive environment and society at large, as well as how that relative position may evolve over time. To quote a senior portfolio manager cited in an Ernst & Young report: “Financial performance tells me what a company has already done. Non-financial performance tells me what it is likely to do.”⁷

⁶Porter, M.; van der Linde, C.: “Green and Competitive: Ending the Stalemate”: Harvard Business Review (1995)

⁷Ernst & Young: Measures That Matter (2003)

Bibliography, Further Readings and Other Sources

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FURTHER READINGS

Other studies using SAM’s corporate sustainability data (can be made available upon request)

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SAM at a Glance

FOCUS

SAM focuses exclusively on exploiting sustainability insights to generate attractive long-term investment returns.

METHODOLOGY

SAM is one of the market leaders when it comes to integrating financial and sustainability insights into a structured investment process. Our research underpins the globally recognized Dow Jones Sustainability Indexes (DJSI).

DATABASE

SAM maintains one of the largest proprietary databases for corporate sustainability – a database that forms an integral part of our investment process.

EXPERIENCE

SAM has been one of the pioneers in Sustainability Investing since 1995.

PEOPLE

SAM maintains a unique, cross-disciplinary research team combining leading-edge financial analytical skills with in-house technology and scientific know-how. Additionally, SAM is supported by an unparalleled global sustainability network.

NETWORK

SAM is a member of Robeco, which was established in 1929 and offers a broad range of investment products and services worldwide. Robeco is a subsidiary of the AAA-rated Rabobank Group.



GAS TURBINE SYSTEM

This innovative gas turbine combined cycle system generates enough electricity for 300,000 private homes. It has a 60 percent fuel efficiency capability and therefore delivers reduced emissions and consumes less fuel per megawatt generated.

SAM

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