Responsible Investing: a Paradigm Shift
From Niche to Mainstream
About the Authors

Robeco, established in Rotterdam, the Netherlands, in 1929, offers investment products and services to institutional and private investors worldwide. It has EUR 146 billion in assets under management (as of 31 December 2007).

Robeco's product range encompasses equity and fixed-income investments, money-market and real-estate funds, RI products and services and alternative investments, including private equity, hedge funds, and structured products. The firm's various strategies are managed from Rotterdam (the head office), Boston, Brussels, Hong Kong, London, New York, Paris and Zurich.

To service institutional and business clients, Robeco has offices in Bahrain, Belgium, China, Germany, France, Hong Kong, Japan, Luxembourg, Poland, Spain, the Netherlands, the United States, Singapore and Switzerland. The firm has a bank license in France and in the Netherlands, where products can be sold directly to private clients.

Robeco holds a 100 percent interest in Corestone (Zug, Switzerland), Harbor Capital Advisors (Chicago, USA), and Transtrend (Rotterdam, the Netherlands). The firm also holds an interest of approximately 64 percent in SAM Sustainable Asset Management (Zurich, Switzerland), a 49 percent interest in Canara Robeco Asset Management (Mumbai, India), and a 40 percent interest in AIM (Rijmenam, Belgium).

Robeco is part of Rabobank Group, one of the few retail banks with the highest credit ratings from Moody’s and Standard & Poor’s. Furthermore, within the banking sector, Rabobank has the highest sustainability cluster score, which is used to assess an organization’s people and environmental friendliness.

Visit www.robeco.com to learn more about Robeco.

Booz & Company is a leading global management consulting firm, helping the world’s top businesses, governments, and other institutions. Booz & Company works closely with clients to create and deliver essential advantage. We bring foresight and knowledge, deep functional expertise, and a practical approach to build capabilities and deliver real impact.

In 1914, our founder, Edwin Booz, began conducting business research and solving problems for clients near his native Chicago. Since this time we are known for our deep industry and functional expertise across public and private sectors, our influential global studies and books, and our management magazine, strategy+business. We developed the concept of human capital in the 1940s, product life cycle in the 1950s, supply chain management in the 1980s, smart customization in the 1990s, and organizational DNA in the current decade.

For Booz & Company’s management magazine strategy+business, visit www.strategy-business.com.

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Introduction
Based on a comprehensive study conducted jointly by Robeco Group and Booz & Company, this paper provides an overview of the current Responsible Investing (RI) market and its future potential. As part of the study, a wide range of information sources were covered to provide an objective overview of the RI market today and to project its state by 2015. More than 50 market interviews were conducted, covering a diverse sample of clients, distributors, and competitors with total Assets Under Management (AUM) of more than USD 5 trillion. In addition, detailed market research leveraging an extensive range of market reports, online data sources, and industry databases was completed. Booz & Company also conducted internal interviews with subject matter experts (SME) to complement and validate the research.

We expect the RI market to become mainstream within asset management by 2015, reaching between 15%-20% of total global Assets Under Management (USD 26.5 trillion) and a total revenue of approximately USD 53 billion*.

Factors driving the growth of the RI market include: increased social awareness and the media attention and pressure this will attract, the increasing prices of energy and raw materials, changing legislation such as mandatory CO2 reductions, the established track record for RI performance, and further technological innovation.

This trend will significantly re-shape the asset management landscape over the next few years. Today, the RI market is heavily fragmented. Larger players have not yet actively pursued RI or are just about to position themselves in the game. By 2015, niche players are likely to be taken over by global players or grow themselves to become sizeable specialists; the current leading players might become laggards if they do not follow this trend.

* Please note: all figures used in this paper are related to SRI only.
Defining RI
In line with market standards, we have defined RI as an investment process that considers the social and environmental consequences and looks at governance aspects, and employs strategies such as positive and negative screening, engagement and integration within the context of rigorous financial analysis. RI covers both SI and SRI (see exhibit 1).

Conversely, Sustainable Investments (SI) may have elements of both SRI and non-SRI. SI may include companies that SRI investors perceive to be ‘unethical’ (e.g., land mine and cluster bomb companies), as long as they meet sustainability criteria. Investors often use the terms SRI, RI and SI interchangeably though.

Different investors use different criteria for RI, and there is no public consensus on the definitions. A broad range of criteria is used for investment analyses within RI, including Environmental, Social and Governance (ESG) and publication of Corporate Responsibility (CR) reports.

The disparity of RI definitions suggests that the RI market is still immature being in the early stages of development. We anticipate a convergence of these RI terminologies as RI becomes a major component of investors’ portfolios. Opportunities remain for future market makers to both (re)define RI and shape the RI market.

<table>
<thead>
<tr>
<th>RI Strategy</th>
<th>Definition</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive screening</td>
<td>Seeking to invest in companies with a commitment to responsible business practices, or that produce positive products and/or services. Includes Best-in-class and Pioneer screening</td>
<td>Core RI</td>
</tr>
<tr>
<td>Negative screening</td>
<td>Avoidance of investment in targeted companies, industries and countries</td>
<td>Best-in-class</td>
</tr>
<tr>
<td>Engagement</td>
<td>Active voting and engagement in companies in which one has invested</td>
<td>Pioneer screening</td>
</tr>
<tr>
<td>Integration</td>
<td>ESG is incorporated into investment analyses and decision making</td>
<td>Thematic investments</td>
</tr>
</tbody>
</table>

Scope of RI

Sustainable Investing Considerations include:
- Environmental
- Legislation
- Governance

Socially Responsible Investing
- An investment process that considers the social and environmental consequences, and looks at governance aspects
- Uses both positive and negative screening and also strategies such as engagement, integration, etc.
- Investing done within the context of rigorous financial analysis

Can include companies perceived to be ‘unethical’ by RI investors as long as they meet sustainability criteria (e.g., landmine and cluster bomb companies)
The RI market today is still a niche market
The global RI market has evolved significantly since the introduction of the first ethical mutual fund in Canada by Vancity Credit Union in 1985. RI has become more and more significant in the investment world, with raised social awareness and the media attention and pressure this has attracted.

Since 2003, the RI market AUM has grown by 22 percent annually, with varied contribution from key regions, while global AUM growth remained at 10 percent (see exhibit 3). By the end of 2007, global RI AUM had reached USD 5 trillion. However, this only represented approximately 7 percent of the total AUM.

The United States is currently the largest RI market with USD 2.7 trillion AUM, followed by the UK with USD 1.2 trillion AUM. However, in terms of penetration, the RI AUM as a percentage of total AUM is the highest in UK, with 20 percent, followed by the United States with 10 percent. With only USD 10 billion RI AUM accounting for a mere 2 percent penetration, Asia is still a nascent market.

Investment strategies too vary by region. In the United States, negative screening is predominant, whereas engagement and positive screening are most popular across Europe and Asia respectively. Depending upon the strategy, currently, premiums are still being charged for RI products and services, however this is expected to change as competition increases.

Today, across the globe, the top RI fund managers are not necessarily the market leaders in terms of AUM. The market is characterised by boutiques, with global players starting to discover the segment and moving very quickly. The larger players have not yet actively pursued RI but quite a few are already in the process of positioning themselves in the game.


![Asset Management Market Growth Chart](chart.png)

- **RI growth outperforms AM market growth**
- **RI underperforms AM market growth**

Exhibit 3
The RI market is expected to accelerate its growth over the medium term

There are several factors driving the growth of the RI market (see exhibit 4). As RI becomes common practice, the implication is a paradigm shift to RI becoming the mainstream component of financial instruments.

Companies are becoming increasingly aware of their social responsibilities. Large firms such as DHL, with its 130,000 trucks worldwide, are constantly measuring and optimising their global CO2 footprint. Media attention is on the rise and with hard hitting documentaries and regular press coverage, the reputational risk of investing in the ‘wrong’ type of investment is quite high. The consensus at the 2008 G8 Summit in Tokyo to halve global CO2 emissions by 2050 has also boosted global awareness of RI issues (also see Case Study: Reducing Carbon Emissions).

An other example is the firm TNT. With their projects ‘Driving Clean’ and ‘Choose Orange’ TNT is substantially reducing its CO2 emissions.

Increasing prices of energy, raw materials, etc. is putting enormous economic pressure on companies and pushing demand towards alternative sources. Energy giants such as BP have started heavily investing in Alternative Energies. Currently at USD 1.6 billion per year, BP’s investments in this area could become as much as USD 8 billion per year.

In comparison to the general asset management market, the track record of RI performance has been mixed. However, several RI themes have shown attractive relative returns over the past few years and investors believe that the ESG integration will continue to have a positive impact on returns going forward.

Changes in legislation have also significantly influenced the development of the RI market. There have been several national legislations and international protocols in favour of RI.

Key drivers for market change
Atmospheric CO2 levels have been rising at unprecedented rates of speed over the past century. The current level is 430 parts per million (ppm) CO2 emission, and it is rising at more than 2 ppm each year. The risks of the worst impacts of climate change can be substantially reduced if greenhouse gas levels in the atmosphere can be stabilised between 450 and 550 ppm CO2 emission equivalent. At 550 ppm, there is a 70 percent probability of the earth temperature rising 3 degrees Celsius. Even at 450 ppm, there is a 75 percent chance of the earth temperature rising 2 degrees Celsius.

Stabilisation – at whatever level – requires annual emissions to be brought down to more than 80 percent below current levels. (see exhibit A) There is growing pressure from governments and international bodies to achieve this target, and media attention is high.

The costs of stabilising the climate are significant, leading to increasing investment opportunities (and the size of the RI market) as a consequence. Investments taking place in the next 10 to 20 years will only have a profound effect on the climate in the second half of this century and in the next.

Source: Booz & Co. Energy practice research

### Case Study: Reducing Carbon Emissions

Projected OECD CO2e country emissions

- **Projected emissions if unabated (BAU)** – growth of ~1.2% p.a.
- **Illustrative stabilisation pathway**
- **Target level, 60% reduction vs. 1990 levels** – reduction of 2.1% p.a.
- **80% reduction vs. Business as Usual (BAU)**

Exhibit A
The launch, and rapid growth, of the UN Principles of Responsible Investing is a major driving force for promoting RI globally. The pension disclosure regulation on fund RI policies in the UK, CR reporting standards across the US and the requirement of newly conceived private pension schemes in Germany and Italy to disclose their RI policies in order to be certified and qualify for tax deductions are only a handful of legal requirements driving the RI market.

Finally, technological innovations are functioning as catalysts and providing significant RI investment opportunities. Examples are renewable energy which is fast becoming a viable economic option, with solar power expected to become cheaper than oil by 2010; or the clean energy market which is growing significantly (e.g. wind power), leading to an increased demand for investment (also see Case Study: Clean Technology).

By 2015, we expect the RI market to become ‘mainstream’

RI is expected to grow by 25 percent per annum over the next few years and become mainstream by 2015 at the latest. The RI penetration is expected to reach between 15 to 20 percent of total AUM or around USD 26.5 trillion. Should the RI market enter a proliferation phase, global RI growth rates could grow to 30 percent per year.

Europe – particularly the UK and Switzerland – will drive much of the growth. With a growth rate of 28 percent per annum, the size of the RI market will reach USD 14.2 trillion, overtaking the US RI market (see exhibit 5).

Currently the largest RI market, the US will grow to USD 9.5 trillion. However, several factors could drastically trigger the growth rate in the US. Rising oil prices, natural disasters and a dynamic political climate can all cause a shift in US public opinion, leading towards pro-environmental market development and subsequent growth in the RI space.

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**Exhibit 5**

**RI Market Growth (AUM as % of total AUM)**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>20%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>United States</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Asia</td>
<td>2%</td>
<td>2%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Total RI AUM (2015 $ trillion) 14.2 9.5 2.8
Clean technology can be defined as those technologies that increase resource efficiency, decrease ecological impact, and create economic value.

Various clean tech markets and applications are experiencing rapid growth, as much as 30-40 percent per year. According to the clean tech research and publishing firm Clean Edge, the combined clean energy markets of solar photovoltaics, wind, biofuels, and fuel cells amounted to USD 77.3 billion in 2007. This represents an annual increase of 40 percent, on par with the average annualized growth rate of 35-40 percent of these four markets since 2002. Clean Edge expects these markets to grow to USD 254.5 billion by 2017.

New global investments in sustainable energy – including venture capital, project finance and other asset finance, public markets, and research and development – have expanded by 60 percent to USD 148.4 billion in 2007, according to the research firm New Energy Finance. Investment in new renewable energy capacity was the main driver for this surge in investment, rising 68 percent to USD 84.5 billion in 2007, fuelled mainly by the wind sector. Furthermore, total sustainable energy investment is anticipated to reach USD 450 billion per year by 2012, rising to more than USD 600 billion per year from 2020 onward.

Source: Booz & Co. Energy practice research
In comparison, the Asian RI market, starting from a much smaller base, will grow at a rate of over 150 percent per annum, rapidly expanding its lagging share, to reach a market size of around USD 2.8 trillion.

As the RI market grows, in Europe up to 50%, and in the US over 30% of all net inflow to AUM will be RI and mostly cannibalizing non-RI products.

Another factor driving the RI market growth is the increasing retail demand. A majority of the demand currently is from pension funds and other institutional investors, with retail accounting for a tiny portion of the market.

Over time, primarily due to raised social awareness, retail investors, in particular high net worth / affluent individuals will move into this space. However, although retail share of the market will significantly increase, it will remain well below institutional share.

Demand for RI funds comes predominantly from retail investors. The investors are bullish on several RI themes, with clean energy, climate change and water leading the pack.

Today, investors are also increasingly asking for multi-theme funds, as multi-theme funds are more diversified, show less volatility than pure plays and returns are more predictable, being better able to withstand market downturns. The popularity of the themes changes continuously. As certain themes gain popularity, they tend to become overvalued, leading to the emergence of new themes.

Against this backdrop, there will be a convergence of RI strategies across geographies, with engagement and integration dominating in terms of AUM by 2015 (see exhibit 6).

Shareholder engagement will become a key service offerings for clients. Most investors also believe that ESG integration will have a positive impact on returns, leading to the extensive use of these strategies. This represents a shift in

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**Convergence of RI Strategies** (as % of total RI AUM)

<table>
<thead>
<tr>
<th></th>
<th>Engagement</th>
<th>Negative Screening</th>
<th>Positive Screening</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe 2007</td>
<td>75</td>
<td>50</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>Europe 2015</td>
<td>67</td>
<td>67</td>
<td>80</td>
<td>68</td>
</tr>
<tr>
<td>Asia 2007</td>
<td>27</td>
<td>77</td>
<td>30</td>
<td>80</td>
</tr>
<tr>
<td>Asia 2015</td>
<td>20</td>
<td>20</td>
<td>51</td>
<td>40</td>
</tr>
<tr>
<td>US 2007</td>
<td>0</td>
<td>22</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>US 2015</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

Exhibit 6
the current landscape – negative screening is currently predominant in the US, engagement in Europe and positive screening in Asia. Currently premiums can still be charged for RI products and services. However, as the market is becoming more mainstream, we do expect these premium to decrease significantly over the next years. Engagement will become a common good for which a premium cannot be charged any longer, negative screening will be dropping from 15bps to 5bps and integration from 10bps to 3 bps (see exhibit 8).

This also has implications on the RI revenue pool. While today mandates represent more than 90% of total RI AUM and generate app. 66% of the total RI revenue, this will change significantly over the next few years. By 2015 the total revenue pool is expected to have reached USD 53 billion from USD 9 billion today – but main revenue source will be funds business generating app. 80% of the total RI revenue (see exhibit 7).

Developments in the RI market will, of course, also have an impact on the competitive environment. Today, the RI market is characterised by various niche players. By 2015, niche players are likely to be taken over by global players or grow themselves to become sizeable specialists. Larger players are just about to position themselves in the RI market and will soon take a more dominant role. Players such as Deutsche Bank have already started focusing on themed funds, with three RI funds launched within the last two years, with over USD 2.8 billion AUM. BlackRock has set a target to increase its RI holdings from 9 percent of its total AUM to 15 percent by 2010. Currently leading players missing this opportunity might become laggards soon.

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1 2015 premiums are a pan-European weighted average across asset class and client segment.
2 2015 fees are a pan-European weighted average across institutional and retail
Appendix: Robeco on RI

Robeco embraces Principles for Responsible Investment
Robeco has been a signatory to the United Nations Principles for Responsible Investment since December 2006. The six principles are defined as follows:

1. We will incorporate environmental, social and governance (ESG) issues into investment analysis and decision-making processes.
2. We will be active owners and incorporate ESG issues into our ownership policies and practices (engagement/voting).
3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4. We will promote acceptance and implementation of the principles within the investment industry.
5. We will work together to enhance our effectiveness in implementing the principles.
6. We will each report on our activities and progress towards implementing the principles.

Each year, for the first time in 2007, the signatories fill in an assessment framework. For each Principle, this framework enables the signatories to indicate how they implement the principles and what their ambitions entail.

Filling in the framework is a self-assessment exercise. The scores for each of the six principles relative to our peers have been released by UN PRI. For each principle Robeco’s score for 2007 was higher than for 2006. For principles 2, 5 and 6 Robeco scores in the top quartile.

Engagement
Robeco is affiliated to the Carbon Disclosure Project. This joint initiative of institutional investors world wide, asks companies to be transparent about their CO2 emissions. That not only happens for the sake of ‘knowledge is power’. When you acquire data and reproduce them in a transparent manner, more often than not improvements are implemented. A number of companies in the portfolios that failed to complete the questionnaire have been asked by Robeco still to do so. The results are positive; some companies eventually completed the questionnaire.

Opening a constructive dialogue with specific companies also helps to make additional information publicly available. An example is a utility company that made their targets for reduction of their CO2 emissions publicly available as was the aim of Robeco’s dialogue with this particular company prior to disclosure. Such additional information is highly relevant to investors to make better informed investment decisions.

Disclosure of relevant information for better understanding of a company’s strategic risks and opportunities is certainly an aim of engagement. Another aim of engagement is to improve a company’s behaviour, for instance by adoption of certain policies on environmental or social issues and setting more ambitious targets in these areas. This will decrease the risks in these companies and will make Robeco’s investments on behalf of our clients more valuable in the long term.

Clean tech private equity
Robeco has been offering its clients the opportunity to invest in clean tech private equity since 2004. Through their fund of funds, they invest in a diversified portfolio of clean tech private equity funds worldwide. In addition, Robeco makes selective co-investments directly into clean tech companies alongside the clean tech funds they have invested in. They were amongst the first investors to recognize the growth and potential of the clean tech private equity sector and therefore the first to start a fund of funds in this area. Not only was Robeco early, currently they are also one of the largest investors in the clean tech funds sector. Through this, they have built up solid relations with many of the leading clean tech funds, giving preferential access to new funds and co-investments.

The historic returns of investing in clean tech have been good. Robeco expects the trend towards clean tech to continue, offering the potential for above-average returns in the future as well.

SAM: Leader in Sustainability Investments
SAM (Sustainable Asset Management, Zurich) was founded in 1995 as the world’s first asset management company for sustainability investment. Today, the company ranks as one of the leading managers in the world for sustainability investments and theme-based funds in the areas of new energy sources, water, new materials, healthy living and climate. In addition, it offers institutional investors a broad range of various investment solutions. SAM affords investors a great sense of responsibility and transparency in terms of their investments.

SAM evaluates and analyzes leading companies using industry-specific sustainability criteria that take into account economic, environmental and social aspects. Integrating those future-oriented investment criteria into the company valuation and investment process represents the foundation of its investment philosophy. Sustainability investing enhances traditional valuation as it also considers intangible assets and criteria that affect shareholder value.

SAM’s know-how is based on its proprietary, independent research approach and an active, international sustainability network.
Together with Dow Jones Indices and STOXX, SAM has launched a family of sustainability indices, and published and licences the Dow Jones Sustainability Indexes to track the performance of companies that are industry leaders in the field of sustainability. To this end, SAM analyzes over 1,000 companies a year.

The challenge is to identify those sustainable cutting-edge companies from a universe of companies that call themselves sustainable players. This task is highly research-driven and knowledge-intensive.

In December 2006, SAM and Robeco joined forces to create the world’s leading platform for sustainability investments. Robeco now holds an approx. 64% stake in SAM. At the end of 2007, SAM’s assets under management and under advice amounted to EUR 9.1 billion (up from EUR 6.4 billion in 2006).