Dimensional

Sustainability Investing

October 2014

Investors around the world have grown increasingly aware of how certain business practices may potentially affect the environment. As a result, many individuals and institutions are asking how they can align their investment decisions with their environmental views.

Sustainability investing is one approach within the broader socially responsible investing (SRI) universe.[1] While "sustainability" may have different meanings to different people, the term is often associated with general concern for the environment. The United Nations describes sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[2] With this framework in mind, business practices that are believed to exhaust resources or cause irreversible changes to the earth's climate are considered unsustainable.

Dimensional offers investors a way to reinforce environmentally sustainable business practices while pursuing their long-term investment goals through a broadly diversified strategy.

This paper explores Dimensional's approach to sustainability investing and explains how our patented strategy is designed to deliver the benefits of our time-tested philosophy and innovative core equity approach, while investing in companies considered to have favorable sustainability practices.[3]

1. Socially responsible investing, which is also known as sustainable and responsible investing, broadly refers to any investment strategy that seeks to consider both financial return and social good. The three main advocacy issues within SRI are environmental, social, and corporate governance. Sustainability investing falls within the environmental category; ethical investing falls within the social category. According to the Forum for Sustainable and Responsible Investment (formerly the Social Investment Forum Foundation), SRI is implemented mainly through investment analysis, portfolio construction, shareholder advocacy, and community investing.
2. United Nations, "Report of the World Commission on Environment and Development," General Assembly Resolution 42/187 (December 11, 1987).
3. The implementation and management of Dimensional's sustainability portfolios are protected by US Patent Nos. 7,569,525 B1 and 7,599,874 B1.

DIMENSIONAL'S METHODOLOGY

Many SRI approaches involve the use of positive or negative screens.[4] The criteria informing these screens are based on subjective standards that may be difficult to measure. Additionally, the screening methods typically are applied to business practices in absolute (or binary) terms, with a company stock being either included or excluded.

This all-or-nothing approach may result in reduced diversification and a smaller investment opportunity set. Companies with strong environmental policies might be excluded because of a single detail, or an entire category of firms might be deemed ineligible because of an industry's environmental reputation. Since environmental business practices can vary considerably among companies, their practices are better characterized along a sustainability spectrum. An investment methodology that reflects this spectrum may better serve investors.

Dimensional has developed a way to apply environmental sustainability criteria in an investment strategy. The approach incorporates sustainability standards that are quantitative and objectively applied. We start with our core equity approach, which provides broad diversification across the equity market, and then apply an overlay based on third-party research that rates or scores companies on multiple environmental criteria.

When applying the rating methodology in the overlay, Dimensional looks at all major sectors, emphasizing investment in companies with high environmental sustainability scores and minimizing or excluding investment in companies with low scores. Weighting companies according to their relative sustainability scores results in a larger investible universe, broader diversification across industries, and a more robust application of environmental values in a portfolio. The process is illustrated in the chart below.

This combined approach gives investors a way to reinforce environmentally sustainable business practices and pursue their long-term investment goals through a broadly diversified strategy.

CORE EQUITY APPROACH

Dimensional's sustainability strategy uses the same architecture as other Dimensional core equity strategies, which seek to hold a broad and diverse group of securities across their respective markets. Rather than replicating the market weightings of an index, core engineering targets increased weighting to stocks with higher expected returns, such as small cap stocks, stocks with low relative prices, and stocks with higher profitability.[5] The core approach places greater emphasis on these dimensions through multipliers that adjust the target weights of stocks relative to their natural market weights.

APPLYING SUSTAINABILITY TO CORE EQUITY

CORE ENGINEERING	SUSTAINABILITY OVERLAY	SUSTAINABILITY CORE
Eligible stock market	Eligible stock markets are evaluated on environmental sustainability ratings scale.	Core and sustainability targets are combined to determine stock weights.
Sort stocks on size, relative price, and profitability characteristics.	Adjust weightings to normalize industry and other biases.	Portfolio trades with reduced turnover and costs.
Gradually over- and underweight stocks to achieve desired emphasis while considering market frictions.	Gradually over- and underweight stocks to reflect environmental sustainability ratings.	Ongoing portfolio adapts to changing size, relative price, profitability, and environmental sustainability factors.

4. A negative (or avoidance) screen excludes companies that do not meet the criteria. Positive screening involves choosing exemplary companies within an industry or those whose business practices are aligned with the investor's values.

5. Relative price as measured by the price-to-book ratio. Profitability is a measure of current profitability, based on information from individual companies' income statements.

What are the costs of sustainability investing?

Whatever screening approach is adopted, investors should consider the explicit and implicit costs associated with sustainability and other socially responsible investment approaches:

- The screens adopted to implement SRI policies are a cost to a portfolio.
- Some high-performing stocks may be excluded.
- Diversification may be reduced by screening out stocks.

Dimensional's approach to sustainability investing aims to minimize these costs by applying a quantitative screen to its core equity investment process. The screen overweights companies with higher sustainability scores (relative to their core equity strategy weightings) and underweights or excludes companies with lower sustainability scores. The goal is to provide an environmentally sustainable strategy without compromising the benefits of Dimensional's core equity investment approach.

The core equity approach can offer investors several advantages. It is broadly diversified to provide consistent market coverage, while focusing on the dimensions of higher expected returns. By spreading the investment gradually across the entire market, a portfolio can hold stocks for maximum efficiency, resulting in reduced turnover and lower transaction costs. Finally, the core equity structure provides opportunities for Dimensional to add value through disciplined and patient trading.

SUSTAINABILITY OVERLAY

Dimensional applies an overlay that adjusts the core equity stock weightings according to the respective companies' sustainability scores. The stocks of companies with higher (favorable) scores receive larger weights relative to their core equity strategy weightings; stocks with lower scores are underweighted or eliminated.

Dimensional uses a third-party firm to research and rate companies, and the company scores are reviewed periodically for companies held in the portfolios and for those being considered for investment. The ratings are based on three broad categories:

- **Climate change:** Considers a company's carbon emissions per dollar of revenue. The analysis evaluates the thoroughness and transparency of carbon reporting by companies participating in the Carbon Disclosure Project, an organization that works with companies to measure and disclose their greenhouse gas emissions. It also takes into account a company's use or production of clean energy and alternative fuels, energy-efficient programs, and the production of goods promoting energy efficiency.

- **Environmental vulnerability:** Focuses on a company's environmental impact, particularly where that impact is causing harm. This includes issues with hazardous waste, substantial fines or penalties stemming from environmental law violations, and other concerns, including damage to natural resources and environmental controversies with an impact on communities.

- **Environmental strength:** Examines a company's processes and systems for managing and reducing overall impact on the environment. The analysis considers systems that track resource use and waste production, pollution prevention (including clearly defined goals), and regular progress reports. Scoring also reflects other initiatives, such as the substantial use of recycled materials or revenue derived from products and services with environmental benefits.

This process differs from traditional screening approaches in that it sorts companies by industry and applies gradual weighting that emphasizes companies considered to have a stronger commitment to sustainable practices while preserving core equity characteristics.

Evaluating companies at the industry level prevents the elimination of an entire industry from investment due to low sustainability ratings among companies in that sector. This approach helps ensure that the portfolio remains highly diversified across industries, and recognizes that companies engaged in the same industry can have significantly different levels of environmental business practices.

The rating methodology also considers the potential impact of company size on ratings. For example, a large company, even one operating at maximum efficiency, may have substantially higher total emissions than a small company in the same industry. To adjust for company size, variables in the climate change and environmental vulnerability analyses are weighted by revenue. Additionally, some environmental strength variables are measured in comparison to similar-sized firms because large companies typically have more resources to pursue initiatives that may be environmentally beneficial.

PUTTING IDEAS INTO PRACTICE

Dimensional has a long history of creating custom investment solutions to address the evolving needs of clients. First introduced in the US in 2008, our sustainability strategies offer investors an opportunity to integrate environmental values into Dimensional's core equity approach. The strategies are designed and managed to deliver consistent, value-added access to the dimensions of higher expected returns, and employ cost-effective execution.

To this end, Dimensional's patented, research-driven approach to sustainability offers a broader strategy for investors to pursue their environmental and investment goals simultaneously.