Performance of Sustainable Investments

Evidence and Case Studies

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1. Sustainability and Corporate Performance

Facts

- 90% of the studies on the cost of capital show that sound sustainability standards lower the cost of capital of companies (Clark et al., 2015).
- 88% of the research shows that solid ESG practices result in operational outperformance of firms (Clark et al., 2015; Friede et al., 2015).
- 80% of the studies show that stock price performance of companies is positively influenced by good sustainability performance (RobecoSAM, 2014 ; Clark et al., 2015).
- 75% of investors agree that company’s good sustainability performance is materially important when making investment decisions (Krüger, 2015; Unruh et al., 2016).
- Consistent finding of added value of Corporate Sustainability over time, indicated by the positive relationship between financial outperformance and sustainability quality before, during and after the 2009 crisis period (Friede et al., 2015).

Selected Sources

- RobecoSAM (2014) Alpha from Sustainability
1. Sustainability and Corporate Performance: Case 1
Outperformance of Sustainable Companies

Financial performance of companies with weak vs. strong ESG performance

Source
1. Sustainability and Corporate Performance: Case 2
Increasing Investor Preference for Sustainable Companies

FIGURE 1: CORPORATE PERFORMANCE ON SUSTAINABILITY METRICS IS INCREASINGLY IMPORTANT TO INVESTORS

A strong majority of all respondents recognize that good sustainability performance matters to investors more today than in past years. And yet, investors indicate that they care more about good sustainability performance than respondents in public companies believe.

FIGURE 4: MANY TOP MANAGEMENT-LEVEL INVESTORS AVOID COMPANIES WITH POOR SUSTAINABILITY PERFORMANCE

Board members of investment companies are more likely to encourage their companies to avoid or divest from companies with poor sustainability performance.

Source
2. Overview on Sustainable Investment Performance

Facts from Meta studies

• Large number of studies indicate positive correlation between ESG performance and share performance (Kleine et al., 2013; Friede et al., 2015).

• Generally sustainable funds have similar, but not worse, performance in comparison to classical funds (Kleine et al., 2013; Friede et al., 2015).
  • While these results apply ‘on average’, the performance of individual SRI funds varies considerably.

• Studies highlight particularly strong correlation between ESG and financial performance for asset classes such as emerging markets, corporate bonds and green real estate (Friede et al., 2015).

Selected Sources

2. Sustainable Investment Performance: Meta Study by Steinbeis University

<table>
<thead>
<tr>
<th>Analyse-dimension der Studien</th>
<th>Anzahl der untersuchten Studien</th>
<th>Studienergebnisse zum Einfluss der Nachhaltigkeitsorientierung auf das Anlageergebnis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positiv</td>
</tr>
<tr>
<td>Meta-Studien</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Aktien</td>
<td>55</td>
<td>21</td>
</tr>
<tr>
<td>Anleihen und Kredite</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Fonds</td>
<td>74</td>
<td>11</td>
</tr>
<tr>
<td>Indizes</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Mehrere Assetklassen</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>(Performanceanalyse im engeren Sinne)</td>
<td>178</td>
<td>48</td>
</tr>
<tr>
<td>Sonstige**</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Durchschnitt</td>
<td></td>
<td>195</td>
</tr>
</tbody>
</table>

Source

3. Performance of Sustainable Investments: Equity

Facts

- On average research indicates a positive correlation for sustainable funds (Weber et al., 2010; Morgan Stanley, 2015). Nevertheless, important differences among the different funds (Plinké et al., 2006).

- On a single equity level:
  - ESG analysis serves as a risk management tool that enables investors to identify material ESG issues. Poor management of ESG issues exposes businesses and investors to financial risk through brand/reputational damage, as well as hard law and soft law litigation. ESG enhances long-term, risk-adjusted investment performance (Trunow and Linder, 2015).
  - ESG analysis helps identify market and business opportunities that are developed by companies in their product and service offerings (Trunow and Linder, 2015).

Selected Sources

3. Performance of Sustainable Equities: Case 1
Sustainability Adding Value to Emerging Markets Investments

Performance MSCI EM ESG vs. MSCI EM (in USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>MSCI EM ESG</th>
<th>MSCI EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>-11.99</td>
<td>-14.60</td>
</tr>
<tr>
<td>2014</td>
<td>5.20</td>
<td>-1.82</td>
</tr>
<tr>
<td>2013</td>
<td>1.63</td>
<td>-2.27</td>
</tr>
<tr>
<td>2012</td>
<td>21.64</td>
<td>18.63</td>
</tr>
</tbody>
</table>

Source
- Datastream, MSCI (2015)
3. Performance of Sustainable Equities: Case 2
BP suffered underperformance after Deepwater Horizon event

Event
- Accident on the Deepwater Horizon drilling platform on 20 April 2010
- Eleven deaths, seawater polluted with 4.9m barrels of oil

Financial consequences
- USD 26bn in known costs to date, further fines and punitive damages may be imposed
- BP has set aside USD 42bn in reserves (net profit 2012: USD 11bn)
- Share price losses after the accident: around 40%

Sources
- Thomson Reuters, Datastream, (2015)
- Vescore, (2016)
3. Performance of Sustainable Equities: Exclusion Approach

“Even with a strict approach to ESG screening, such as that used by CSI which excludes around 30% of the investable universe on average, as well as entire industries, the resulting opportunity set does not prevent investment portfolios from achieving a fully diversified set of risk factor exposures.” (Trunow and Linder, 2015)

<table>
<thead>
<tr>
<th>PORTFOLIO</th>
<th>TOTAL RETURN (Annualized)</th>
<th>VOLATILITY (Annualized)</th>
<th>TRACKING ERROR</th>
<th>INFORMATION RATIO</th>
<th>DOWNSIDE DEVIATION</th>
<th>PAIN INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSI</td>
<td>3.68%</td>
<td>16.66%</td>
<td>2.97</td>
<td>-0.35</td>
<td>11.92%</td>
<td>19.77%</td>
</tr>
<tr>
<td>Optimized CSI</td>
<td>5.24%</td>
<td>15.41%</td>
<td>1.50</td>
<td>0.34</td>
<td>10.91%</td>
<td>13.29%</td>
</tr>
<tr>
<td>Size-Constrained Optimized CSI</td>
<td>4.83%</td>
<td>15.41%</td>
<td>1.61</td>
<td>0.06</td>
<td>10.94%</td>
<td>14.46%</td>
</tr>
<tr>
<td>Russell 1000 Index (Benchmark)</td>
<td>4.72%</td>
<td>15.48%</td>
<td></td>
<td></td>
<td>11.07%</td>
<td>15.27%</td>
</tr>
</tbody>
</table>

Source: Style Advisor, MSCI BARRA, Calvert Research

- **Volatility**: Annualized standard deviation of returns, measures portfolio risk
- **Tracking Error**: Annualized standard deviation of excess (active) returns, indicates how closely performance tracks a benchmark
- **Information Ratio**: Ratio of excess returns to the volatility of excess returns (tracking error), measures risk-adjusted performance
- **Downside Deviation**: Annualized standard deviation of negative returns only, measures downside risk
- **Pain Index**: Mean value of drawdowns over the entire analysis period, downside risk measure that captures the depth, duration, and frequency of loss periods

3. Performance of Sustainable Equities: ESG Momentum

“Portfolios consisting of companies showing the greatest improvement in their ESG profiles outperform both comparable broad market indices and portfolios made up of companies with deteriorating ESG profiles. This finding is consistent across datasets and regions. The strong performance by companies with the largest improvement in their ESG scores may reflect investors’ willingness to reward companies showing progress in managing ESG risks and opportunities.” (Trunow and Linder, 2015)

Source
4. Performance of Sustainable Investments: Corporate Bonds

Facts

• Evidence that ESG factors are correlated with credit quality (UN PRI, 2013).
  • “A study of bonds issued by 582 US corporations between 1996 and 2005 found that firms with environmental concerns and poor environmental management had a higher cost of debt, lower bond ratings and lower issuer ratings” (Bauer and Hann, 2011).
  • “Lenders charge on average 20 percent higher interest rates to companies which manage environmental risks poorly compared to those where environmental concerns are offset with environmental ‘strengths’, according to a study of US firms between 1995 and 2007 (Chava, 2011).

Selected Sources

• Chava, S.,( 2011) Environmental Externalities and Cost of Capital, Working Paper, Georgia Institute of Technology
4. Performance of Sustainable investments: Sovereign Bonds

Facts

• Corruption as one of the key social factors of ESG. Tax avoidance and false financial statements on a massive scale undermine nations’ credit strength and mislead investors. Academic research show that corruption and sovereign debt performance are clearly correlated. (UN PRI, 2013)

• «Research shows little correlation to date between environmental issues and bond performance. One of the biggest problems is agreeing on which indicators should be used to measure environmental risks in the context of sovereign fixed income.» (UNPRI, 2013)

Source

5. Investments for Development: Target Return and Characteristics

Facts

• Average of 4.5% target return
• Investments correlate only marginally with global equity and bond markets
• Contribution to economic development in developing and emerging markets.

Source
5. Microfinance Investments: Performance and Correlations

Cumulative returns of microfinance vs. other asset classes over the last 10 years\(^1\)

![Graph showing cumulative returns of microfinance vs. other asset classes over the last 10 years.](image)

### Correlations between various asset classes and microfinance index

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>0.57</td>
</tr>
<tr>
<td>Bonds</td>
<td>0.02</td>
</tr>
<tr>
<td>MSCI World</td>
<td>-0.09</td>
</tr>
<tr>
<td>Hedge funds</td>
<td>-0.13</td>
</tr>
</tbody>
</table>

\(^1\) As of 31.12.2015 based on monthly returns in USD

**Source**
- Symbiotics, (2016)
6. Performance of Sustainable Investments: Real Estate

Facts

- «Commercial buildings with energy efficiency ratings command significantly higher rents, higher and more stable occupancy rates, and higher prices than otherwise comparable conventional buildings» (Eichholtz et al., 2010; Bauer et al., 2011)
- Real estate investment portfolios are positively related to operating performance (Eichholtz et al., 2012; UN PRI, 2012).
- «Increase in the share of «green» properties in real estate investment portfolios by one percent, increases return return on equity significantly by 4.3 to 5.5 percent for LEED-certified properties.» (Eichholtz et al., 2012)
- «On the whole, evidence from the US, the Netherlands and Singapore has begun to demonstrate a convincing case that the financial performance of certified office buildings is superior to that of non-certified properties. » (UN PRI, 2012)

Selected Sources

Performance of Sustainable Real Estate Investments: Case 1

Price Premium of Sustainable Compared to ‘Traditional’ Real Estate

<table>
<thead>
<tr>
<th>Country</th>
<th>Sustainable</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>26.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>GB</td>
<td>8.5%</td>
<td>7.0%</td>
</tr>
<tr>
<td>AU</td>
<td>8.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>FR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Single family house: 7%, Condominium: 3.5 %

Source:
- J. Safra Sarasin, (2015); based on:
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We are interested in your feedback and business cases for sustainable investing.
Please contact us if you have:
• Case studies for other asset classes
• Swiss case studies