

# **Risks and Returns of Sustainable and Socially Responsible Indices: Are They Riskier than Their Benchmark?**

Bachelor Thesis

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## **Executive Summary**

Sustainable and socially responsible (SR) investing is an investment approach that allows the investor to consider environmental, social and governance (ESG) factors in portfolio selection and management. I am personally interested in this topic, since I believe that showing that a SR investing strategy does not affect a portfolio's return in comparison with a conventional one, might convince traditional maximal revenue investors and the financial market to steer to a more SR direction.

In the literature, previous investigations into the performance of SR indices and funds have mostly focused on the relative excess returns they generated, the generated alpha, in comparison with their benchmarks. In the majority of cases their results show the same outcome: the SR index or fund's generated alpha does not significantly differ from that of its benchmark. However, a study conducted by Schröder in 2007, to which this thesis closely adheres, showed statistically significant higher risks for some of the analysed SR indices; however, he did not provide any explanations. My study will therefore augment Schröder's results by shedding light on potential explanations, concentrating mainly on the SR indices' generated risks and their source. For this reason, the impact of the applied SR screening procedure on the selection of SR indices' constituents and their market sector exposure has also been analysed. The subjects of this research are 14 SR indices from two different index suppliers, MSCI and FTSE. Both adopt different SR screening approaches to select their SR indices' constituents: MSCI employs a best-in-class screening process, which selects the best ESG rated companies among their sector peers, while the FTSE adopts a negative screening approach, which excludes the worst ESG rated companies inside the analysed universe.

To accomplish the thesis's aim, four different hypotheses are posed and tested. The first hypothesis speculates that the return of SR indices differs significantly from their benchmarks, i.e. conventional ones. The second hypothesis supposes that the risk exposure of SR indices differs significantly from that of their benchmarks. This is the main subject of the thesis, together with comparing the risk profile of SR indices of different suppliers. Looking more closely at the SR indices themselves, the third hypothesis examines the performance comparison between MSCI and FTSE indices. It suggests that FTSE indices are riskier than MSCI ones, based on the different screening approaches adopted by each index supplier. With the last and fourth hypothesis, I want to delve deeper into the results associated with the risk exposure of SR indices' obtained from the second and third hypotheses, suggesting that the risk exposure of SR indices is related to the applied screening procedure.

To test the stated hypotheses, the thesis adopts a single and multiple regression approach by analysing the indices and benchmarks' daily returns over the risk-free rate during the period from 01.01.2010

to 01.05.2015. The employed regressions are the one-factor regression Capital Asset Pricing Model (CAPM) and the Fama-French three-factor model. To test my first two hypotheses, I look at the regression relationship between the SR indices and their benchmark to investigate their relative performance and risk characteristics. By contrast, to test my third hypothesis, the specific SR indices' benchmarks are substituted by another SR index from the same region but the other supplier, to directly compare MSCI's indices with the FTSE's. The Fama-French three-factor model provides further support to reject or accept my first hypothesis. Moreover, this model adds two further macroeconomic variables to the previous one-factor model, which represent possible additional risk factors to which the SR indices might be correlated. To support the fourth hypothesis, the published market sector exposure of these SR indices in comparison with their benchmark was analysed, since a potential market sector weight difference between them might reflect the impact of the applied screening method.

The results show in the first place no statistically significant generated alpha of any SR indices in either regression model. Consequently, the first hypothesis is rejected. The second hypothesis, on the contrary, was confirmed for 13 of 14 SR indices. Those results are consistent with Schröder's study, since he also observed a significantly different risk profile for the majority of the indices he analysed. My third hypothesis has also been confirmed and shows that FTSE indices seem to be riskier than MSCI ones. By looking at the sector exposure of SR indices and benchmarks, it seems that FTSE's negative screening does have a greater impact on weight difference between an SR index and its benchmark than the MSCI procedure does. Moreover, by considering the SR indices' exposure to the two macroeconomic factors of the Fama-French, it turned out that all FTSE indices are more significantly exposed to potential risks generated by economic cycles than MSCI's ones are. Consequently, based on the aforementioned outcomes and reasoning, the fourth seems to be coherent and hints at a correlation between different screening approaches and indices' risk exposure.

In conclusion, according to my results, the analysed indices showed neither an outperformance nor an underperformance. However, they do have different risk characteristics than their benchmark. Moreover, according to further regression results, FTSE indices seem to be riskier than MSCI ones. There are reasons to believe that these risk differences are strongly related to the applied screening procedures. Moreover, a brief section presenting additional intangible risk classes presented by KPMG (2010) further improve the risk profile performance of SR indices. Consequently, by focusing on the main thesis' question, it seems that by looking at the majority of my results and considering additional risks classes, it appears that SR indices are in reality less risky than their benchmarks.

## **Abstract**

The intention of this thesis is to deepen understanding of the risk exposure of SR indices compared with their benchmark and of the effects on SR indices of two different screening methods as applied by MSCI and FTSE. The results show a significantly different risk exposure than their benchmarks for 13 of 14 SR indices. Moreover, the FTSE indices analysed were riskier than the MSCI ones. Furthermore, the results of analysing market exposure and other regressions to the analysed indices' sectors indicate that this risk difference between SR indices from different suppliers and their benchmarks might indeed be related to the applied SR screening procedure.