Indexing for ESG Performance: Corporate Governance

Master's thesis-internship project at Finance Ideas B.V.

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Executive summary

From the institutional investors' perspective, the goals of building a passive portfolio to match the market returns and achieving the environmental, social and governance (ESG) targets seem to be incompatible. While the former tries to mimic the performance of the benchmark index, the latter involves an active investment strategy that would take the portfolio composition away from the market composition and thus would lead to increased tracking errors [1]. But do they really contradict each other? This master's thesis attempt to answer the question by investigating the two following hypotheses:

> ***Hypothesis 1:*** *The passively managed Good Governance Index, which comprises constituents that have good corporate governance practice, can generate returns similar to or better than those of the benchmark index.*
>
> ***Hypothesis 2:*** *The exclusion of up to fifty percent of the benchmark index's constituents that have low corporate governance scores will not lead to tracking errors of more than one percent.*

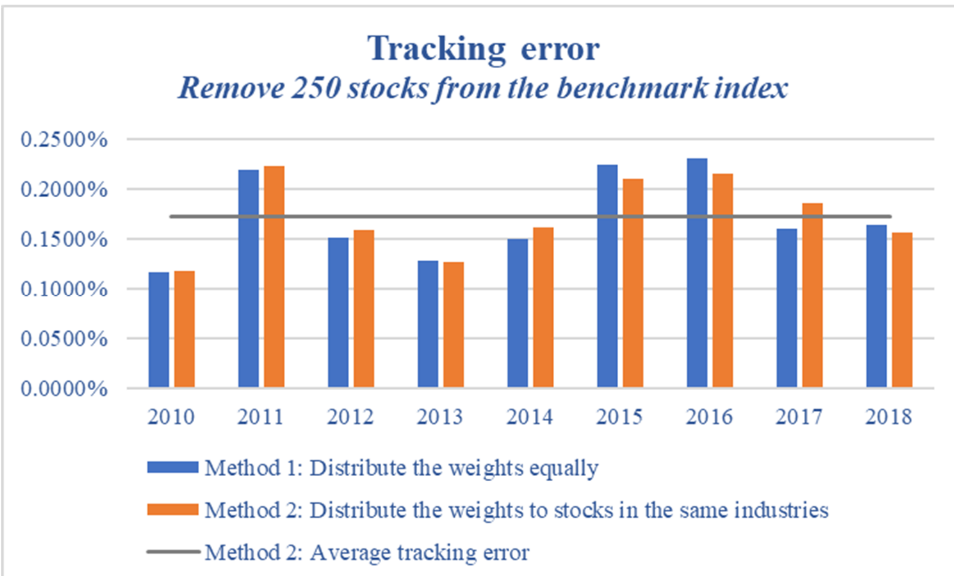
The S&P 500 index was chosen as the benchmark index of the Good Governance Index. The parent index's constituents were ranked according to their governance scores. The scores were calculated using data on nine governance metrics obtained from Bloomberg and ASSET4 for the period from 2008 to 2016. This study follows the approach outlined by Andersson, Bolton, and Samama (2016)[2] by first removing a predefined number of stocks with the worst score. The weights are then distributed to the remaining constituents using two straightforward methods:

- Method 1: Distribute the weights of the removed securities equally among the remaining stocks in the index.
- Method 2: Distribute the weights of the removed securities among the remaining stocks in the same industry.

[1] Tracking error is the key measure of risk for funds using a passive approach, which is the return differences between the portfolio and its benchmark index.
[2] Andersson, M., Bolton, P., & Samama, F. (2016). Hedging climate risk. *Financial Analysts Journal, 72*(3), 13-32.

The returns and tracking errors of the Good Governance Index were computed for the period from 2010 to 2018[3]. The results of this research support both hypotheses. When removing from 10% to 50% of the S&P 500 index constituents with the lowest scores, the Good Governance Index achieved higher annualized returns with smaller standard deviations than those of the benchmark index. In addition, the two mentioned rebalancing approaches generated tracking errors from 0.06% to 0.23%. The second method was chosen as the optimal rebalancing strategy as it requires less index turnover, and thus lower the cost for investors. Figure 1 displays the tracking errors of the Good Governance Index over the studied period when the 250 worst performers were removed.

Figure 1: Tracking errors of the Good Governance Index when 250 stocks were removed



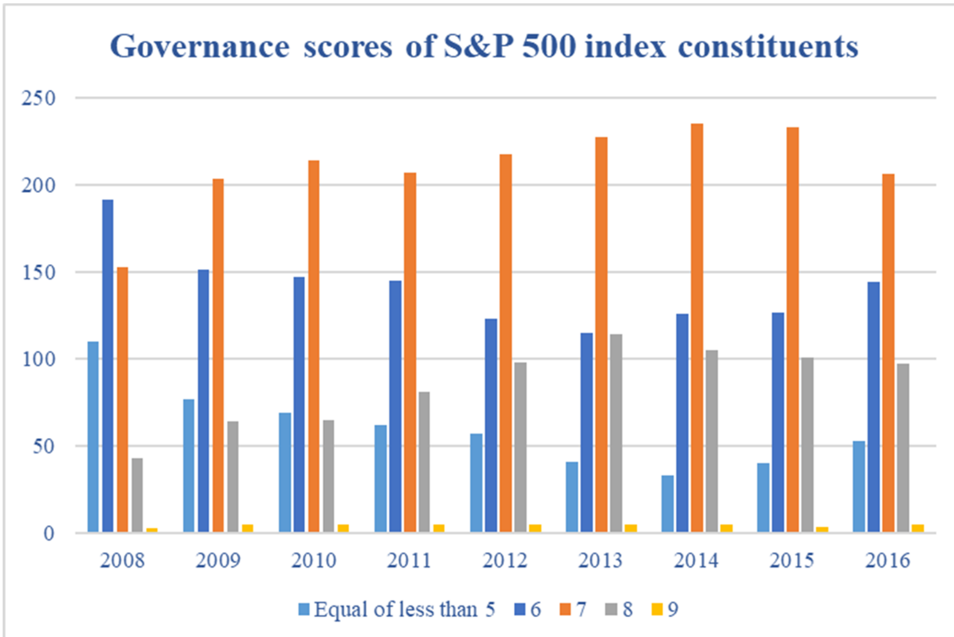
The findings are consistent with the existing literature by showing that the SRI index fund can achieve similar or better risk-adjusted returns compared to its parent index. This study also presents a reweighting methodology that is straightforward and simple for investors to understand. The Good Governance Index has stable performance that matches well with the long run liabilities of many institutional investors while its low management fees and simple approach suit the investors' operation capacity.

The study also finds some interesting data which suggests that the growth of passive investing does not relegate the firms' corporate governance standards. Contradicting to the concerns of many

[3] Data on returns and tracking errors is only available up to and including May 2018.

researchers and finance professionals, the governance scores of the S&P 500 index constituents improved over the studied period (Figure 2).

Figure 2: Corporate governance scores of S&P 500 index constituents from 2008 to 2016



In summary, this master's thesis acts as a proof of concept, demonstrating the approach which institutional investors can use to incorporate ESG elements into their investment strategy. The outcomes are encouraging and could help to attract more investors to SRI passive investment products. Future research can be built on this paper to test the procedure on other benchmark indices, or other ESG elements.