



**University of
Zurich** ^{UZH}

Department of Banking and Finance
Chair of Quantitative Finance

Master thesis

Sustainability Indices

Performance and Exposure to Investment and
Macroeconomic Factors

Supervisors:

Prof. Dr. Marc Chesney
Jonathan Krakow

Author:

Jan Lanz

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Abstract

This thesis analyses the return and risk characteristics of 14 global broad sustainability indices, which act as a substitute for a comprehensive market index, and 14 thematic indices. The results suggest that during the specific full measurement periods many indices are unable to outperform their corresponding benchmarks. Seven broad and three thematic indices produce a statistically significant negative Jensen's alpha, while none of the indices achieve a statistically significant positive Jensen's measure. Furthermore, the typical sustainability index is subject to higher volatility. However, after the Paris Agreement in December 2015 around half the indices beat the benchmark risk adjusted. The Carhart four-factor model reveals that broad sustainability indices are heavily exposed to equities with a large market capitalisation. In contrast, thematic indices tend to overweight small-capitalized stocks. The high R-squared values of the factor models and the generally low tracking errors to the benchmarks indicate that broad sustainability indices are representative for the global stock market.

Keywords: Sustainability indices; performance measurement; downside risk.

JEL Classification: G01; G15; Q56;