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Master Thesis

Style and Factor Risks from ESG Investments in Stocks and Bonds

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Abstract

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by Marc STAUB

Pension funds have come under increased political pressure to meet environmental, social, and governance (ESG) standards with their investment decisions. Three questions arise with regard to an ESG investment strategy. Does a green risk premium exist? Are the risks from ESG investments different from conventional investments? And, do the ESG constraints on the investment universe come with diversification costs? Using extended risk factor models I do not find evidence of a green or ESG risk premium in the cross-section of equity and bond mutual funds. Further, I find evidence of significantly higher small cap and growth risk exposures in green equity investments compared to conventional investments. ESG equity investments exhibit a lower market risk exposure compared to conventional investments. ESG bond portfolios have a significant negative credit risk exposure and significant volatility risk exposure compared to conventional bond portfolios. The results are confirmed in an asset allocation environment. Green and ESG equities and bonds are significantly more correlated than conventional asset classes. This thesis implies that investors cannot expect to harvest a premium. Pension funds have to be aware that green or ESG strategy risk exposures can deviate from conventional risk budgets.

Keywords: factor risks, style analysis, ESG, green bonds