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Title: Optimal long-term sustainable investment

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## Abstract:

We construct two sustainable ESG-screened S&P 500 portfolios weighted either by market capitalization or using the Refinitiv ESG score. In the classic Merton consumption-investment problem, and for moderate sustainability preferences, we show that (1) risky asset allocation with the sustainable portfolios is higher than in the S&P 500 case and it increases with a more stringent sustainability preference, (2) consumption and welfare are comparable between the market cap-weighted sustainable portfolio and the S&P 500, but higher with the ESG-weighted sustainable portfolio. Results in a more realistic setting with stochastic labour income, annuities and bequest will be reported.

Keywords: optimal consumption, portfolios, annuities, retirement