

Evaluating Government Bond Fund Performance with Stochastic Discount Factors

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August 26, 2004

This paper shows how to evaluate the performance of managed portfolios using stochastic discount factors (SDFs) from continuous-time term structure models. The approach addresses a bias in performance measurement, described by Goetzmann, Ingersoll and Ivkovic (2000) and Ferson and Khang (2002), that arises when fund managers may trade dynamically within the return measurement interval or hold positions in replicable options. The solution gives rise to empirical factors formed as time-averages of the underlying state variables in the model. We find that these empirical factors contribute explanatory power in factor model regressions and reduce the pricing errors of the models. We illustrate the approach on a sample of U.S government bond funds during 1986-2000.

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