

One-period pricing strategy of 'money doctors' under cumulative prospect theory

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Abstract We focus on the interaction between investors and portfolio managers, employing a cumulative prospect theory approach to the investor's preferences. In an original way, we model trust in the manager and the relative anxiety about investing in a risky asset. Moreover, we investigate how trust and anxiety affect the manager's fee and the portfolios of cumulative prospect theory investors. The novelty of our contribution relative to previous work is that we rely on cumulative prospect theory (CPT) rather than the classical mean-variance framework. Moreover, our research differs from traditional CPT work through an improved value function that accurately characterizes the reduction in anxiety suffered by the CPT investors from bearing risk when assisted by the portfolio managers' help relative to when they lack such assistance. Our results differ in several respects from those obtained when using on classical preferences. First, the optimal fees are not symmetric. Specially, the dominant managers obtain higher fees than subordinate managers regardless of changes in risk of risky assets (a risky asset) and changes in the dispersion of trust in the population. Another difference is that these fees are not proportional to expected returns. In particular, the optimal fees increase nonlinearly as risk of risky assets (a risky asset) increases and the dispersion of trust in the population increases.

Keywords Money doctor · Money manager · Cumulative prospect theory (CPT) · CPT-investor · Value function · Objective function · Optimal fees

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