

Overview of the Stochastic Theory of Portfolios

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We shall provide an overview of Stochastic Portfolio Theory (SPT), a flexible framework for analyzing portfolio behavior and equity market structure. This theory was developed by E.R. Fernholz in several papers culminating with his monograph *Stochastic Portfolio Theory* (Springer 2002); more recent results are presented in the survey by Fernholz & Karatzas (2009) and in the book-in-progress by Karatzas & Kardaras (2017).

SPT is a descriptive, as opposed to normative, theory. It is consistent with observable characteristics of actual portfolios and markets, and provides a theoretical framework which is useful for practical applications.