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Optimal investment. (English) Zbl 1264.91119

[SpringerBriefs in Quantitative Finance](#). Berlin: Springer (ISBN 978-3-642-35201-0/pbk; 978-3-642-35202-7/ebook). x, 156 p. (2013).

The book is an interesting presentation of stochastic optimal control methods in quantitative finance. Its general plan is to discuss the most basic problems in continuous-time portfolio selection. The considered models include risky and risk-free assets, dividends, consumption and endowments. The dynamics is described in terms of the stochastic differential equations and the goal is to maximize a given functional describing the aggregated utility of consumption and/or the utility of terminal wealth.

Chapter 1 is devoted to the classical Merton problem. Chapter 2 to its variations. Next in chapter 3 the author provides the numerical tools for solving equations derived in the preceding chapters. The final chapter takes a look at the practical usefulness of the presented approach.

Reviewer: [Piotr Jaworski \(Warszawa\)](#)

MSC:

- [91G10](#) Portfolio theory
- [91G80](#) Financial applications of other theories
- [91B16](#) Utility theory
- [91B70](#) Stochastic models in economics

Cited in **20** Documents

Keywords:

[portfolio selection](#); [continuous-time market models](#); [optimal consumption](#); [utility function](#)

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