



94 | 3 | 0
Views | CrossRef citations to date | Altmetric

Original Articles

Pricing Lookback Options with Knock-out Boundaries

Yoshifumi Muroi

Pages 155-190 | Received 27 Jul 2004, Published online: 02 Feb 2007

Cite this article <https://doi.org/10.1080/13504860600563028>

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share

Abstract

In the last decade, many kinds of exotic options have been traded and introduced in the financial market. This paper describes a new kind of exotic option, lookback options with knock-out boundaries. These options are knock-out options whose pay-offs depend on the extrema of a given securities price over a certain period of time. Closed form expressions for the price of seven kinds of lookback options with knock-out boundaries are obtained in this article. The numerical studies have also been presented.

Keywords:

Exotic options

lookback options

knock-out boundaries

Acknowledgements

I am grateful for valuable comments and suggestions from professors Naoto Kunitomo and Masayuki Ikeda. I also thank the editor and the anonymous referee for fruitful discussions. This paper is based on Chapter 5 of my doctoral dissertation submitted to Graduate School of Economics, University of Tokyo and it does not necessarily reflect the opinion of the Bank of Japan or the Institute of Monetary and Economics Studies.

Notes

1. This was pointed out by Professor Masayuki Ikeda.
2. It is also possible to derive the integral formula [\(32\)](#) by taking the limit $\alpha \rightarrow 0$ in integral formula [\(9\)](#). This formula is then derived using l'Hopital's rule. This was pointed by Professor Masayuki Ikeda.

Related Research Data

[Path Dependent Options: The Case of Lookback Options](#)

Source: The Journal of Finance

[Pricing Options With Curved Boundaries¹](#)

Source: Mathematical Finance

[Path Dependent Options: "Buy at the Low, Sell at the High"](#)

Source: The Journal of Finance

[Theory of Rational Option Pricing](#)

Source: The Bell Journal of Economics and Management Science

Linking provided by [ScholeSplorer](#)

Related research

People also read

Recommended articles

Cited by
3

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2025 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)



Taylor & Francis Group
an informa business

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG