

Pricing by American Option by Approximating its Early Exercise Boundary as a Multipiece Exponential Function

[Get access >](#)

The Review of Financial Studies, Volume 11, Issue 3, July 1998, Pages 627–646,
<https://doi.org/10.1093/rfs/11.3.627>

Published: 03 June 2015

Abstract

This article proposes to price an American option by approximating its early exercise boundary as a multipiece exponential function. Closed form formulas are obtained in terms of the bases and exponents of the multipiece exponential function. It is demonstrated that a three-point extrapolation scheme has the accuracy of an 800-time-step binomial tree, but is about 130 times faster. An intuitive argument is given to indicate why this seemingly crude approximation works so well. Our method is very simple and easy to implement. Comparisons with other leading competing methods are also included.

© 1998 The Society for Financial Studies

Issue Section: [Article](#)

You do not currently have access to this article.


Sign in

 [Get help with access](#)

Personal account

- Sign in with email/username & password
- Get email alerts
- Save searches
- Purchase content

Institutional access

 [Sign in through your institution](#)

[Sign in through your institution](#)

[Sign in with a library card](#)

- Activate your purchase/trial code
- Add your ORCID iD

Sign in >

Register

[Sign in with username/password](#)

[Recommend to your librarian](#)

Institutional account management

[Sign in as administrator](#)

Purchase

[Subscription prices and ordering for this journal](#)

[Purchasing options for books and journals across Oxford Academic](#)

Short-term Access

To purchase short-term access, please sign in to your personal account above.

Don't already have a personal account? [Register](#)

Pricing by American Option by Approximating its Early Exercise Boundary as a Multipiece Exponential Function - 24 Hours access

EUR €53.00

GBP £44.00

USD \$58.00

Rental



This article is also available for rental through DeepDyve.