

Valuation and Analysis of Collateralized Mortgage Obligations

John J. McConnell, Manoj Singh

Published Online: 1 Jun 1993 | <https://doi.org/10.1287/mnsc.39.6.692>

Abstract

This study develops a model for the valuation of Collateralized Mortgage Obligations (CMOs). The model is based on a two-factor model of the term structure of interest rates and embeds an empirically estimated mortgage prepayment function. The model is used to analyze various CMO tranches, including standard sequential pay fixed-rate tranches, Planned Amortization Class (PAC) tranches, Targeted Amortization Class (TAC) tranches, floating-rate tranches, Interest Only (IO) and Principal Only (PO) tranches, Z-bonds and Residuals. The results of this analysis illustrate the sensitivity of the various tranches to differences in CMO structure, changes in interest rates, the characteristics of the underlying collateral, and mortgage prepayments.

[< Previous](#)
[Back to Top](#)
[Next >](#)


Volume 39, Issue 6

June 1993

Pages 657-776

Article Information

Metrics

INFORMS site uses cookies to store information on your computer. Some are essential to make our site work; Others help us improve the user experience. By using this site, you consent to the placement of these cookies. Please read our [Privacy Statement](#) to learn more.

[Agree](#)

Downloaded 6 times in the past 12 months

Cited 10 times

Cite as

John J. McConnell, Manoj Singh, (1993) Valuation and Analysis of Collateralized Mortgage Obligations. Management Science 39(6):692-709.

<https://doi.org/10.1287/mnsc.39.6.692>

Keywords

- collateralized mortgage obligations
- CMOs
- mortgage-backed securities
- tranche

PDF download



Sign Up for INFORMS Publications Updates and News

SIGN UP

Partners





The Institute for Operations Research and the Management Sciences

5521 Research Park Drive, Suite 200
Catonsville, MD 21228 USA

phone 1 443-757-3500

phone 2 800-4INFORMS (800-446-3676)

fax 443-757-3515

email informs@informs.org

Get the Latest Updates

[Discover INFORMS](#)

[Explore OR & Analytics](#)

[Get Involved](#)

[Impact](#)

[Join Us](#)

[Recognizing Excellence](#)

[Professional Development](#)

[Resource Center](#)

[Meetings & Conferences](#)

[Publications](#)

[About INFORMS](#)

[Communities](#)

[PubsOnLine](#)

[2024 INFORMS/ALIO/ASOCIO International Conference](#)

[Certified Analytics Professional](#)

[Career Center](#)

[INFORMS Connect](#)

Copyright 2024 INFORMS. All Rights Reserved

[INFORMS Code of Conduct](#) | [Terms of Use](#) | [Privacy](#) | [Contact INFORMS](#) | [Sitemap](#)

Follow INFORMS on:  [Twitter](#)  [Facebook](#)  [LinkedIn](#)

INFORMS site uses cookies to store information on your computer. Some are essential to make our site work; Others help us improve the user experience. By using this site, you consent to the placement of these cookies. Please read our [Privacy Statement](#) to learn more.

Agree