

1. Record Nr.	UNINA9911002558603321
Autore	Rom Niels
Titolo	Callable Mortgage Bonds : Numerical Methods and Valuation Models for Pricing and Risk Analysis // by Niels Rom
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031878893
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XX, 206 p. 43 illus.)
Collana	Finance for Professionals, , 3059-3530
Disciplina	332.0415
Soggetti	Capital market Financial risk management Social sciences - Mathematics Statistics Financial engineering Capital Markets Risk Management Mathematics in Business, Economics and Finance Statistics in Business, Management, Economics, Finance, Insurance Financial Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Fixed Income -- Chapter 3. Mathematical Finance -- Chapter 4. Prepayment Model Estimation -- Chapter 5. Stochastic Interest Rate Model -- Chapter 6. Simulation -- Chapter 7. Finite Difference -- Chapter 8. Semi-Analytic MBS Pricing -- Chapter 9. adjustable-rate Mortgages -- Chapter 10. Valuation of a Mortgage Credit Institute's Loan Book -- Chapter 11. Cash Settled Swaptions.
Sommario/riassunto	Callable mortgage bonds are utilized by individuals and companies to finance the purchase of real estate, and this asset class therefore plays a crucial role in modern society. Callable mortgage bonds constitute an enormous asset class and often offer long-term stable investments that are very attractive for pension funds. This book focuses on the pricing and calculation of risk numbers of callable fixed-rate mortgage bonds.

Owing to the, from a financial perspective, irrational behaviour of borrowers, the pricing of these instruments usually requires the use of numerical solutions. Traditionally, it has been either a Monte Carlo simulation or a Finite Difference method. This book covers both methods and, in addition, the relatively new Fourier technique. This latter technique also creates a link between the interest rate derivatives market and the market for callable mortgage bonds. Finally, a chapter presenting a model for the valuation of a mortgage credit institute's loan book is included. .

---