

NEW: We have upgraded our email alerts. You can sign up using the 'Email alerts' panel available on most pages, or in your Oxford Academic personal account, where you can also manage any existing alerts.

JOURNAL ARTICLE

Variable Rare Disasters: An Exactly Solved Framework for Ten Puzzles in Macro-Finance

Get access >

The Quarterly Journal of Economics, Volume 127, Issue 2, May 2012, Pages 645–700, <https://doi.org/10.1093/qje/qjs001>

Published: 14 March 2012

Abstract

This article incorporates a time-varying severity of disasters into the hypothesis proposed by [Rietz \(1988\)](#) and Barro (2006) that risk premia result from the possibility of rare large disasters. During a disaster an asset's fundamental value falls by a time-varying amount. This in turn generates time-varying risk premia and, thus, volatile asset prices and return predictability. Using the recent technique of linearity-generating processes, the model is tractable and all prices are exactly solved in closed form. In this article's framework, the following empirical regularities can be understood quantitatively: (i) equity premium puzzle; (ii) risk-free rate puzzle; (iii) excess volatility puzzle; (iv) predictability of aggregate stock market returns with price-dividend ratios; (v) often greater explanatory power of characteristics than covariances for asset returns; (vi) upward-sloping nominal yield curve; (vii) predictability of future bond excess returns and long-term rates via the slope of the yield curve; (viii) corporate bond spread puzzle; (ix) high price of deep out-of-the-money puts; and (x) high put prices being followed by high stock returns. The calibration passes a variance bound test, as normal-times market volatility is consistent with the wide dispersion of disaster outcomes in the historical record. The model extends to a setting with many factors and to Epstein-Zin preferences.

JEL: E43 - Interest Rates: Determination, Term Structure, and Effects, E44 - Financial Markets and the Macroeconomy, G12 - Asset Pricing; Trading volume; Bond Interest Rates

Issue Section: [Articles](#)

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

[Sign in >](#)

[Register](#)

Institutional access

 [Sign in through your institution](#)

[Sign in through your institution](#)

[Sign in with a library card](#)

[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](#)

Variable Rare Disasters: An Exactly Solved Framework for Ten Puzzles in Macro-Finance * - 24 Hours access

Rental



This article is also available for rental through DeepDyve.