



607 Views | 129 CrossRef citations to date | 0 Altmetric

Miscellany

Power laws in economics and finance: some ideas from physics

J-P. Bouchaud

Pages 105-112 | Published online: 08 Apr 2010

🗨️ Cite this article 🔗 <https://doi.org/10.1080/713665538>

Sample our
Mathematics & Statistics
Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

🗨️ Citations

📊 Metrics

🖨️ Reprints & Permissions

Read this article

🔗 Share

Abstract

We discuss several models in order to shed light on the origin of power-law distributions and power-law correlations in financial time series. From an empirical point of view, the exponents describing the tails of the price increments distribution and the decay of the volatility correlations are rather robust and suggest universality. However, many of the models that appear naturally (for example, to account for the distribution of wealth) contain some multiplicative noise, which generically leads to non-universal exponents. Recent progress in the empirical study of the volatility suggests that the volatility results from some sort of multiplicative cascade. A convincing 'microscopic' (i.e. trader based) model that explains this observation is however not yet available. It would be particularly important to understand the relevance of the pseudo-geometric progression of natural human time scales on the long-range nature of the volatility correlations.

People also read

Recommended articles

Cited by
129

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

