







Q

Home ► All Journals ► Economics, Finance & Business ► Quantitative Finance ► List of Issues ► Volume 1, Issue 1 ► Financial markets as nonlinear adaptive

Quantitative Finance >

Volume 1, 2001 - <u>Issue 1</u>

650 203 0

Views CrossRef citations to date Altmetric

Miscellany

Financial markets as nonlinear adaptive evolutionary systems

C.H. Hommes

Pages 149-167 | Published online: 08 Apr 2010

Sample our
Economics, Finance,
Business & Industry Journals
>> Sign in here to start your access
to the latest two volumes for 14 days

66 Citations

Metrics

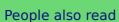
Reprints & Permissions

Read this article

Share

Abstract

Recent work on complex adaptive systems for modelling financial markets is surveyed. Financial markets are viewed as evolutionary systems between different, competing trading strategies. Agents are boundedly rational in the sense that they tend to follow strategies that have performed well, according to realized profits or accumulated wealth, in the recent past. Simple technical trading rules may survive evolutionary competition in a heterogeneous world where prices and beliefs coevolve over time. The evolutionary model explains stylized facts, such as fat tails, volatility clustering and long memory, of real financial series. Although our adaptive belief systems are very simple, they can match the autocorrelation patterns of returns, squared returns and absolute returns of 40 years of S&P 500 data. Some recent laboratory work on expectation formation in an asset pricing framework is also discussed.



Information for Open access

Authors Overview

R&D professionals Open journals

Editors Open Select

Librarians Dove Medical Press

Societies F1000Research

Opportunities Help and information

Reprints and e-prints

Help and contact

Advertising solutions Newsroom

Accelerated publication All journals

Corporate access solutions Books

Keep up to date

Register to receive personalised research and resources by email









Accessibility

Copyright © 2025 Informa UK Limited Privacy policy Cookies Terms & conditions



Registered in England & Wales No. 01072954 5 Howick Place | London | SW1P 1WG