

221 | 3 | 1
Views | CrossRef citations to date | Altmetric

Articles

An ecological/evolutionary perspective on high-frequency trading

Bogdan Dragos & Inigo Wilkins

Pages 161-175 | Received 31 Jan 2013, Accepted 10 Jan 2014, Published online: 26 Feb 2014

Cite this article <https://doi.org/10.1080/20430795.2014.883300>

Check for updates

Sample our
Economics, Finance,
Business & Industry Journals

>> [Sign in here](#) to start your access to the latest two volumes for 14 days

Full Article | Figures & data | References | Citations | Metrics

Reprints

We Care About Your Privacy

We and our 855 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting "I Accept" enables tracking technologies to support the purposes shown under "we and our partners process data to provide," whereas selecting "Reject All" or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the ["privacy preferences"] link on the bottom of the webpage [or the floating icon on the bottom-left of the webpage, if applicable]. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

I Accept

Reject All

Show Purpose



apply to an
text
s a complex
more precise,
t it can be
such as
tors,
ncial
s, such as
ance from
e discursive

econophysics and experimental economics and particularly the ongoing research

around 'computational evolutionary economics' [Mirowski, P. 2007. "Markets Come to Bits: Evolution, Computation and Markomata in Economic Science." *Journal of Economic Behavior & Organization* 63: 209-242; Mirowski, P. 2010. "Inherent Vice: Minsky, Markomata, and the Tendency of Markets to Undermine Themselves." *Journal of Institutional Economics* 6: 415-443]. This becomes particularly relevant in the context of the so-called robot phase transition from human-dominated trading to the more automatic electronic trading. The current microstructure of automatic market-making can be understood as an 'ecological niche' developed by ultra-fast trading algorithms which 'feed' on the asymmetries and disparities of the wider 'financial ecology'. They do this by dissipating noise and adding to the complexity of market microstructure a behaviour that can push the whole ecology to critical thresholds, sometimes referred to as flash crashes. This whole process can ultimately be described by Philip Mirowski's notion of 'inherent vice', as well as by Sir Robert May's concept of instability 'which develops in ecosystems upon increasing bio-diversity' [Caccioli, F., M. Marsili, and P. Vivo. 2007. "Eroding Market Stability by Proliferation of Financial Instruments." *The European Physical Journal B - Condensed Matter and Complex Systems* 71: 467-479 ; Haldane, A., and R. May. 2011. "Systemic Risk in Banking Ecosystems." *Nature* 469: 351-355].

Keywords: sustainability capital markets financial services regulation sustainable development
accountab

Notes

† An ear
2013. W
exte

zine, January
this



Relate

An ecol

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 updates
by email



Copyright © 2013 Taylor & Francis Group

Accredited by the

Registered
5 Howick Place



Taylor & Francis Group
an informa business

