≜ | SPECIAL VIEWPOINT



Complexity and the Economy

W. BRIAN ARTHUR Authors Info & Affiliations

SCIENCE • 2 Apr 1999 • Vol 284, Issue 5411 • pp. 107-109 • DOI: 10.1126/science.284.5411.107



Abstract

After two centuries of studying equilibria—static patterns that call for no further behavioral adjustments—economists are beginning to study the general emergence of structures and the unfolding of patterns in the economy. When viewed in out-of-equilibrium formation, economic patterns sometimes simplify into the simple static equilibria of standard economics. More often they are ever changing, showing perpetually novel behavior and emergent phenomena. Complexity portrays the economy not as deterministic, predictable, and mechanistic, but as process dependent, organic, and always evolving.

Get full access to this article

View all available purchase options and get full access to this article.



ALREADY A SUBSCRIBER OR AAAS MEMBER? SIGN IN AS AN <u>INDIVIDUAL</u> OR VIA YOUR <u>INSTITUTION</u>

REFERENCES AND NOTES

- P. Anderson, K. J. Arrow, D. Pines, Eds., *The Economy As an Evolving Complex System* (Addison-Wesley, Reading, MA, 1988).

 GOOGLE SCHOLAR
- W. B. Arthur, S. N. Durlauf, D. A. Lane, Eds., *The Economy As an Evolving Complex System II* (Addison-Wesley, Reading, MA, 1997).

 GOOGLE SCHOLAR
- 3 Arthur W. B., *Sci. Am.* **262**, 92 (1990).

 GOOGLE SCHOLAR
- _____, Increasing Returns and Path Dependence in the Economy (Univ. of Michigan Press, Ann Arbor, MI, 1994).

GOOGLE SCHOLAR



0

eLetters (0)

eLetters is a forum for ongoing peer review. eLetters are not edited, proofread, or indexed, but they are screened. eLetters should provide substantive and scholarly commentary on the article. Embedded figures cannot be submitted, and we discourage the use of figures within eLetters in general. If a figure is essential, please include a link to the figure within the text of the eLetter. Please read our <u>Terms of Service</u> before submitting an eLetter.

LOG IN TO SUBMIT A RESPONSE

No eLetters have been published for this article yet.

CURRENT ISSUE



<u>Host control of the microbiome: Mechanisms, evolution, and disease</u>

BY JACOB WILDE, EMMA SLACK, ET AL.

<u>Diversity and scale: Genetic architecture of 2068 traits in the VA Million Veteran Program</u>

BY ANURAG VERMA, JENNIFER E. HUFFMAN, ET AL.

<u>Multiscale photocatalytic proximity labeling reveals cell</u> <u>surface neighbors on and between cells</u>

BY ZHI LIN, KAITLIN SCHAEFER, ET AL.

TABLE OF CONTENTS >

ADVERTISEMENT

Sign up for ScienceAdviser

Subscribe to ScienceAdviser to get the latest news, commentary, and research, free to your inbox daily.

SUBSCRIBE >

ADVERTISEMENT

LATEST NEWS

SCIENCEINSIDER | 20 JUL 2024

<u>Virus spreading in Latin America may</u> <u>cause stillbirths and birth defects</u>

SCIENCEINSIDER | 18 JUL 2024

In a first, botanists vote to remove offensive plant names from hundreds of species

SCIENCEINSIDER | 18 JUL 2024

By killing a lunar rover, NASA puts commercial delivery program on notice

NEWS | 19 JUL 2024

<u>'Cocaine sharks' found in waters off Brazil</u>

NEWS | 18 JUL 2024

More than 1 trillion microbes live inside the average tree trunk

NEWS | 18 JUL 2024

News at a glance: A precise atomic clock, a close asteroid flyby, and flood-resistant rebuilding

ADVERTISEMENT

otics

Signaling

Science Translational Medicine

Science

Advances

Immunology Immunology

FOLLOW US











GET OUR NEWSLETTER

<u>NEWS</u>	CAREERS	COMMENTARY	<u>JOURNALS</u>	AUTHORS & REVIEWERS
All News	<u>Careers Articles</u>	<u>Opinion</u>	<u>Science</u>	Information for Authors
<u>ScienceInsider</u>	Find Jobs	<u>Analysis</u>	Science Advances	Information for Reviewers
News Features	Employer Hubs	<u>Blogs</u>	Science Immunology	
Subscribe to News from Science			Science Robotics	
News from Science FAQ			Science Signaling	
About News from Science			Science Translational Medicine	
Donate to News			Science Partner Journals	
<u>LIBRARIANS</u>	<u>ADVERTISERS</u>	RELATED SITES	ABOUT US	HELP
<u>Manage Your Institutional</u>	<u>Advertising Kits</u>	AAAS.org	<u>Leadership</u>	<u>FAQs</u>
<u>Subscription</u>	Custom Publishing Info	AAAS Communities	Work at AAAS	Access and Subscriptions
<u>Library Admin Portal</u>	<u>Post a Job</u>	<u>EurekAlert!</u>	<u>Prizes and Awards</u>	<u>Order a Single Issue</u>
Request a Quote		Science in the Classroom		Reprints and Permissions
<u>Librarian FAQs</u>				TOC Alerts and RSS Feeds
				Contact Us



© 2024 American Association for the Advancement of Science. All rights reserved. AAAS is a partner of HINARI, AGORA, OARE, CHORUS, CLOCKSS, CrossRef and COUNTER. Science ISSN 0036-8075.

Terms of Service | Privacy Policy | Accessibility