

“On the waves of economic Fluctuations”

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ARTICLE INFO	Tetiana Lepeyko (2020). On the waves of economic Fluctuations. <i>Environmental Economics</i> , 11(1), 65-66. doi: 10.21511/ee.11(1).2020.06
DOI	http://dx.doi.org/10.21511/ee.11(1).2020.06
RELEASED ON	Monday, 01 June 2020
RECEIVED ON	Friday, 01 May 2020
ACCEPTED ON	Friday, 29 May 2020
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Environmental Economics"
ISSN PRINT	1998-6041
ISSN ONLINE	1998-605X
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 1st of May, 2020

Accepted on: 29th of May, 2020

Published on: 1st of June, 2020

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ON THE WAVES OF ECONOMIC FLUCTUATIONS

(Review of the monograph of Oleksandr Kubatko
"Fluctuations in the development of ecological and
economic systems")¹

Over the last decades of the past century, the attention of economists to economic fluctuations and, accordingly, a decline in business cycles began to increase. Recent studies on the development of methods for filtering fluctuations in a series of economic dynamics have revealed mainly cyclical fluctuations. They did not find distinct classical business cycles in real economic time series. Despite the latter, the business cycle concept has already become a convenient term used in economics.

The categorical apparatus of synergetics, its main ideas, and methodology have gradually penetrated into various areas of the economy, and many scientific papers have appeared that use synergetic methods and terminology. The use of synergetic approaches to analyzing economic systems opens up a new branch of economic knowledge, *Development Economics*, the subject of which is the pattern of changes in socio-economic systems under the influence of external and internal factors.

There are many methods and approaches for assessing the level of synchronization, and the book discusses the similarities in the dynamic development of economic indicators. Among the most common methods are the following:

- 1) correlation of fluctuations in the study of indicators;
- 2) assessment of forwarding or lag dynamics;
- 3) development phase coordination;
- 4) volatility of fluctuations;
- 5) the presence of long-term memory in time series; and
- 6) analysis of the similarities in the impulse response functions.

The scientific properties of economic time series are characterized by concepts such as trend, cycle, and fluctuations. The book notes that economic growth, economic downturn and stable equilibrium (stability) are essential and descriptive properties of the trend category. For the economic cycle category, the descriptive features are the phases of growth (economic expansion) and recession. Amplitude, volatility, and inertia of economic time series are essential and expressive prop-

1 Kubatko, O. V. (2017). *Fluktuatsii rozvytku ekoloho-ekonomichnykh system [Fluctuations in the development of ecological and economic systems]* (monograph) (384 p.). Sumy: Universytetska knyha – University Book. (In Ukrainian). http://book.sumy.ua/book/?task=callelement&format=raw&item_id=913&element=5c2eec3-3c7b-427a-9a20-13b52a024c93&method=download



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Conflict of interest statement:

Author(s) reported no conflict of interest

erties of fluctuations. The monograph substantiates the general and distinctive features in the definitions of economic cycles, fluctuations, and shocks.

Given the requirements for ensuring the development of the national economy, fluctuations in rising energy prices are an important deterrent to eco-destructive activity based on the following effects: rising energy prices do reduce final output and reduce the use of pollution-intensive resources in the short term. Due to the existence of inter-resource substitution reserves and increased energy efficiency, emissions of harmful substances should also decrease with rising energy prices.

In this regard, to justify the use of pro-cyclical (anti-cyclical) economic policy and ensure sustainable development, the book proposes scientific and methodological provisions for determining the amplitude gap and phase shifts of interrelated environmental and economic fluctuations based on multifactor correlation analysis and detrending time series by bandpass filters.

The monograph is characterized by a vivid structure, logic and consistency and presents the material in an accessible form, taking into account the latest research.

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