

PARADIGMATIC ROOTS OF POST-GROWTH ECONOMIC MODEL

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Abstract

The global economic crisis that started fully in 2008, stood on the table requirement formulation of a new paradigm of economy, economic theory based on new paradigmatical bases with new theoretical framework. Outdated economic theories, which are dominant in the development of economic policies and strategies have become a major obstacle in the economies on a global scale. The continued dominance of these outdated economic theories is a major source of global economic and social destruction.

The global crisis has also created demand for new solutions that would be based on economic theories developed on the basis of a new paradigm, a paradigm which allows to perceive the economy as a whole, undivided, as a subsystem of higher systems of nature and of the universe as well as the return of ethics as the basis of economic support systems at all levels.

Solution to the current global crisis is undoubtedly linked to the creation of new economic theories that would allow the transition to a new model of sustainable development of civilization. Nowadays we are witnessing a failure of economic theory that has been dominant for the period of the industrial age.

The economy was seen as a mechanism and the economic theories were in this way adapted. In the information age economy works as an living organism. In living organisms entropic processes that are associated with the past are balanced with syntropic processes that are focused on the future. Syntropy must therefore be the central concept of economic theory in which the economy is viewed as a living organism.

Syntropic economic theory has the potential to become a dominant and defining for the formulation of policies and strategies that allow overcoming the current global crisis. The economy as an organism, the economy as anticipatory system and a new understanding of wealth and its role in society will be dominant in the creation of the theory of syntropic economics.

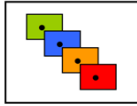
Economic theory therefore awaits big paradigm leap that will change fundamentally the current form of human society and civilization. The transition of the main concept of the growth will be the base for new syntropic economic growth policies and strategies within the framework of limited non-growth world.

Economics as a Mental Map

The view of the partial economic theories and the economic theoretical schools as partial mental maps of the economic reality and as the fragmentary views of one undivided reality enables the view of economics as one science consisted of a great number and diversity of the partial economic theories, all of which have their own time, space, purpose and limits, and no economic theory is possible to be absolute in any time and any space.

The economic theory is not the economic reality as all theories are only the maps of the reality as described Alfred Korzybski in his works on general semantics (Korzybski 1995). Map is not the reality (Korzybski 1995) and economic theory is not economy itself. Each economic theory is limited in time, space and purpose.

The problem of mankind with economic theories is connected with understanding some basic economic theories as such kind of sacred texts together with the view of economics as kind of religion with eternal laws and invisible hand of market as kind of god.



Understanding economic theory as only mental map of economic reality can help us understand how economic theory is creating, what is its purpose and how economic theory is evolving.

We have to allow the plurality of economic theories with the limited area of their purpose. Economic theory therefore has to be a puzzle consisted of the individual economic theories with the possibility of the innovation or the change of the individual pieces of such puzzle.

Futurology and Anticipation

The extraordinary role in creation of anticipative thinking has the futurology as the science of the future. The futurology was coined in the year 1943 by Ossip K. Flechtheim and was designed by him as the opposite to ideology. In the ideology is only one determined future and in the futurology there are several contingent futures.

Ossip K. Flechtheim published several books and articles on futurology as science of the future as History and Futurology (1966), Futurologie - Der Kampf um die Zukunft (1971), Der Kampf um die Zukunft - Grundlagen der Futurologie (1980) and many others.

The science of the future has today various branches as futurology, futures studies, futures research, foresight, anticipation, prevision, scenario thinking and others.

Anticipative thinking has nowadays the great number of methods of futures thinking, futures studies and futures research. The most comprehensive publication on futures research methodology is publication Futures Research Methodology by Jerome C. Glenn and Theodore Gordon, which was created as part of activities of the biggest futures studies project in the world The Millennium Project. It were published three versions of Futures Research Methodology. The last 1300 pages Futures Research Methodology Version 3.0 consists of 49 groups of various futures research methods, methodologies and tools (Glenn, Gordon 2009).

Economy as an Anticipatory System

Reorientation of the economic systems towards the future is interconnected with the implementation of the long-term horizons into the economic models, the economic theory and also into the policymaking. Economy has to be transformed into the anticipatory system in the term of Robert Rosen. Economy as evolving system can be understand as a living organism with permanent transformation of its structure, organization, laws etc.

Economy as the anticipatory system has to deal with the cause located in the future which are the new attractors forming the economic, the social and the civilization systems. Leon S. Fuerth created the concept of Forward Engagement (Fuerth 2006, 2007, 2009) which is oriented toward the implementation of the long term horizons into the policymaking and can be the tool of reorientation of the economic systems towards the future.

In the year 2013 he published with Evan M. H. Faber the publication Anticipatory Governance (Fuerth, Faber 2012, 2013), in which they presented the vision of Anticipatory Governance for implementing the long term horizons in the policy making.

The implementation of the long term perspectives into the policymaking is one of the 15 global challenges of The Millennium Project (Glenn, Gordon, Florescu 2010). The 15 global challenges were selected by the panel of experts in the year 1997 and the last version of the report 2012 State of the Future, in which are included also the global challenges, has more than 10 000 pages on CD.

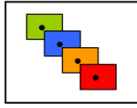
Syntropic Theory of Value

The core problem of industrial age economics was the source of economic value and how this value was realized on the market. Working theory of value was dominant in the mainstream economic theories of industrial age from Adam Smith, David Ricardo and Karl Marx to the time of first emerging of information age economic structures in the third part of 20th century. Some visionary thinkers as Daniel Bell, Peter Drucker, John Naisbitt and some others asked in their books and publications for creation of information or knowledge theory of value.

Understanding the economic laws as evolving similar as the economic reality is evolving can incorporate the aspect of the dynamics and the irreversibility in the economic theory.

The basic law of the syntropic theory of economics can be the syntropic theory of value. During the industrial age the dominant law of the economics was the working theory of value, which was the subject of the discussions between the various economic theoretical schools.

The concepts of entropy and syntropy and their implementation into the economic theory can help the creation of the syntropic theory of value as the main anti-entropic law of syntropic stage of human evolution. The information is the main source of the value in the information age instead of the work as the main source of the value in the industrial age. In syntropic stage of human evolution all syntropic activities will have the value in the sense of economic value.



According to syntropic theory of value the value is creating by all anti-entropic activities including non-market economic activities with syntropic economic impact today as also in the future.

Economy as an Implicate Order

The view of the global world economy as one undivided whole, the view of this economy as implicit order and the view of economic development and the globalization process as holomovement, with using the theory of wholeness and implicate order, which was created by David Bohm (Bohm 1980, 1995), can help us to understand the processes of the globalization and their impacts on the individual countries and their economies.

David Bohm created and described the theory of the holomovement, the implicate order and the explicate order in his books *Fragmentation and Wholeness* (1976), *Wholeness and the Implicate Order* (1980), *Unfolding Meaning* (1985), *Thought as a System* (1995), and others. He proposed there the concepts of the holomovement, the implicate order and the explicate order.

In his book *Unfolding Meaning* David Bohm characterized his new concept of order:

“The proposal is that the holomovement is the basic reality, at least as far we are able to go, and that all entities, objects, forms, as ordinarily seen, are relatively stable, independent and autonomous features of the holomovement, much as the vortex is such a feature of the flowing movement of a fluid. The basic order of this movement is therefore enfoldment and unfoldment. So we’re looking at the universe in terms of a new order, which I’ll call the enfolded order, or the implicate order” (Bohm 1985, 1996).

David Bohm described here what means the word implicate and what is the principle of holomovement:

“The word “implicate” means to enfold – in Latin, to fold inward. In the implicate order, everything is folded into everything. But it’s important to note here that the whole universe is in principle enfolded into each part actively through the holomovement as well as all the parts. Now this means that the dynamic activity – which is fundamental to what each part is, is based on its enfoldment of all the rest, including the whole universe (Bohm 1985, 1996).

Understanding the economy as implicate order according to David Bohm with the hidden code of the civilization in form of the main principles of civilization can show us how the hidden code of the civilization, described by Alvin Toffler (Toffler 1990), is changing our economy, society and civilization.

Alvin Toffler in his book *The Third Wave* (1980) described the hidden code of the industrial age Second Wave civilization also as of the Third Wave information age civilization. He wrote there:

“Every civilization has a hidden code – a set of rules of principles that run through all its activities like a repeated design. As industrialism pushed across the planet, its unique hidden design become visible. It consisted of a set of six interrelated principles that programmed the behavior of millions. Growing naturally out of the divorce of production and consumption, these principles affected every aspect of life from sex and sports to work and war” (Toffler 1980).

Alvin Toffler described in the hidden code of Second Wave civilization the implicate order, which is unfolded to the explicate order different in various countries, but with the same roots of civilization’s hidden code or the implicate order of civilization. Alvin Toffler described the implicate order of the Third Wave civilization as the set of six guiding principles:

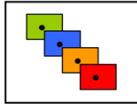
“What we see, therefore, is a set of six guiding principles, a “program” that operated to one degree or another in all the Second Wave countries. These half-dozen principles – standardization, specialization, synchronization, concentration, maximization and centralization – were applied in both capitalist and socialist wings of industrial society because they grew, inescapably out of the basic cleavage between producer and consumer and of the ever-expanding role of the market” (Toffler 1980).

The evolution of the economy is therefore part of the holomovement of the whole civilization. The interdependence of the global economic system and the synchronicity of the economic and societal changes in the individual countries as e.g. in the year 1989, can be understood via the concept of the holomovement and the processes of unfolding the hidden code of civilization in form of the implicate order.

Syntropic Order from Entropic Chaos

We can understand the ongoing civilization transformation with using Global Civilization Change Model (Klinec 2005). Global Civilization Change Model is designed on the base of holistic economic theory (Klinec 2005). The core of this model is the view of economy as a dissipate structure, which is dissipating energy, materials and information and creating a new structure of the society and the whole civilization around the civilization attractors in the form of economic productive factors as are soil, work, capital and information and which are determining for the structure and the profile of the economy, the society and the civilization during their evolution (Klinec 2005).

We can understand the civilization evolution as a change of civilization attractors which are identical with the economic productive factors. The change of such attractors in the information age is the main cause of the transformation of the whole civilization around the information and the information networks (Klinec 2005).



The industrial age attractors were work and capital. The information age attractors are information and knowledge. Therefore the new structure of global civilization is network-centric instead of industrial age hierarchic structure (Klinec 2005).

Field Theory of the Economy

We can understand the global economy as a field. The disruption of the field in one area is leading to the instability of the whole global economy. The field theory of economy is the key to the understanding of the current global crisis.

The global interdependence is the other view of the global economy as the global field. The turbulences on the financial markets, the security threats, the poverty, the climate change and many other disbalances are the disequilibrium creating processes with global impact on the economies all over the world.

Holistic Roots of Syntropic Economic Theory

The search for new economic theories for a sustainable world is one of the preconditions of change of present patterns in economic life of the individual, the society and the whole civilization. The whole present human civilization is under pressure to change its activities toward sustainable development, toward support of sustainable living and toward the creation of a new sustainable world. We are witnesses of failure of old classic economic theories especially when the global crisis of human civilization and the global economy is growing with high speed and the danger of destruction of human civilization is interconnected with present economic theories and the international economic and financial institution. Especially now, monetary theory is a huge source of destruction of economies and societies on the national and also global level.

The time of global crisis is also characterized by an emerging number of new economic theories. All these new economic theories are characterized by diversification of the view of economic reality, search for designing new economic theories based on the law of Nature and the Universe and common dialog or multilog in searching for ways from the present global crisis of mankind. Common for all these theories is also a holistic view of economic, social and civilization reality. We are witnesses of an emerging holistic economic theory, which is created together by all new economic thinkers oriented toward sustainable development and a sustainable world.

Ethical Roots of Syntropic Economic Theory

We can track the roots of all economic theories to householding, which was throughout the whole history based on the basic set of ethical principles and moral norms. The development of economic systems and economic theories was connected with changing economic reality and transformation of the household systems to economic systems containing also wealth creation and distribution, exchange and commerce, shopping and business. In era of the globalization householding worldwide was replaced by commerce and financial systems as the core of economy and economic theories were primarily connected with exchange of wealth instead of wealth creating and using by household or similar systems on all levels from global to local.

Ethical principles were wiped out from economic systems and abstract economic systems based on free market utopia was set as economic systems without ethics similar to machine and that was connected with dehumanization of economic activities on all levels.

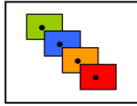
As in the history most famous book about relationships between economy, economics and ethics by Max Weber *The Protestant Ethics and the Spirit of Capitalism* was replaced by kind of ideological book by Ayn Rand *Atlas Shrugged*, in which ethics has no place in economic activities. *Atlas Shrugged* is therefore presented as kind of economic literature contained the core of free market system without ethics and with no sign of ethical principles in economic systems and their functioning as a kind of machine.

Wiping out of ethical principles from economic theory is also connected with creation of industrial age ideology and understanding economy as a machine with a man as only a part of such machine with no human rights, but only source of profit making and profit orientation.

Good examples of entropic economic theories with destructive results in praxis are those economic theories and their application in praxis, in practical economic policies based on eliminating or wiping out the part of societal and economic structure as e.g. Marx's theory of class struggle, theoretical roots of real socialism or communism with dominating ideology of Marxism-Leninism or economic foundations of Hitler's system of national socialism based on racial struggle aimed to wiping out some races.

The struggle within system between parts or subsystems are basically entropic and the results are destructive ending with collapse of such systems as collapse of system of communism or system of fascism with deep irreversible impacts on development of economy and society.

Profit as highest value of current civilization is primarily source of destructive worldwide entropically functioning economic systems. As stated R. Buckminster Fuller profit orientation is main entropic principle of current entropic stage of



human civilization. Syntropic stage of human civilization is achievable on different set of basic functioning principles oriented towards cooperation and co-creation instead of struggle and destruction.

In The Millennium Project lookout study Some Elements of the Next Global Economic System over the Next 20 Years in the year 2008 ethics was identified as key element of such system (Glenn, Gordon, Florescu 2010). Within the next 20 years is great challenge for the humankind to transform current global system of casino capitalism to ethical market economy and to redesign the markets in the direction to be the servant of humankind instead of its current state as the main threat to human civilization. Ethical market economy is the other face of syntropic economic system, in which the ethics will be the key element.

Growth in Transition

The search for new economic growth theory is deeply interconnected with the search of economic theory for sustainable development model. In Austria there is ongoing project Growth in Transition under the auspices of Austrian Lebensministerium. In the year 2012 was published Future Dossier No. 3 (Zukunftsdossier No 3) Alternative Economic and Social Concepts, in which was published list of main alternatives to mainstream economic growth model.

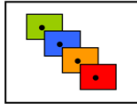
The economic and social alternatives according to this publication are following:

- **Green Growth, Green Economy, Green New Deal** - alternatives created within UNDP, OECD etc. based on the green or ecological economic theories.
- **Europe 2020 – The European Growth Strategy** – official strategy of European Commission based on smart growth, sustainable growth and inclusive growth.
- **Study Commission on Growth, Wellbeing and Quality of Life – The debate about social progress in the German Bundestag** based on the topic of qualitative growth.
- **The Blue Economy – 10 Years, 100 innovations, 100 millions of Jobs – Report to the Club of Rome** – new business model designed by Belgian entrepreneur Gunter Paul - based on inspiration from nature and ZERI (Zero Emission Research Initiative) methodology.
- **Cradle to Cradle** – business model designed by Michael Braungart and William McDonough based on closed-loop cycles.
- **Factor X – The absolute reduction of resource consumption by a factor X** – designed by co-president of Club of Rome Ernst Ulrich von Weizsäcker and Friedrich Schmidt-Bleak from Factor 10 Institute.
- **Steady State Economy – The optimal size model of an economy** based on economic theories of Herman Daly, Nicholas Georgescu-Roegen and Frederic Soddy.
- **De-Growth – Downsizing as a way out of the crisis** – based on the economic theory of Nicholas Georgescu-Roegen and publication of Serge Latouche, Joan Martinez-alier and others.
- **Post-Growth Society** – economic and managerial theories of Tim Jackson, Peter Victor, Nico Peach based on concepts and models without growth.
- **Buen Vivir (The Good Life) – Spirit of change in the Andes** – The south American concept based on the balance with nature, the reduction of social inequality and economy based on solidarity and a pluralistic democracy – designed by Alberto Costa and Eduardo Gudyans.
- **Common Welfare Economy** – vision of an alternative economic system based on values that support common welfare, cooperation and solidarity – designed by Christian Falber.
- **The Solidarity Economy** – number of concepts and initiatives designed and organized from the bottom mainly by local actors.
- **The Transition Movement** – number of concepts and initiatives designed and organized by communities as a response to climate change and Peak Oil.
- **New Forms of Measuring Wellbeing and Progress** – all alternatives to mainstream indicators as Beyond GDP by European Commission, Stiglitz-Sen-Fitoussi Commission Report, OECD Better Life Initiative and Gross National Happiness Index in Bhutan.

New Economic Models for Sustainable Development

At the the end of 20th century and at the beginning of the 21st century we can see emergence of several economic systems with the characteristics compatible with the syntropic economic theory. We can mentioned the Blue Economy of Gunter Pauli, Gross National Happiness GNH of Jigme Wangchuck or 6th Kondratieff of Leo A. Nefiodow.

1. **The Blue Economy** is the new business model developed by Belgian entrepreneur and visionary Gunter Pauli. Gunter Pauli published this new model in the year 2010 in the book The Blue Economy, which is also report to the Club of Rome. The Report to the Club of Rome Blue Economy by Belgian entrepreneur Gunter Pauli is based on new business model with potential of creating 100 millions of jobs during ten years via 100 innovations



based on the natural principles. At the beginning of the second decade of the 21st century the new agenda was created with the goal of supporting the transition of economy and society toward sustainable future. The Blue Economy model is based on 100 innovations inspired from the nature. Gunter Pauli used for the Blue Economy ZERI methodology and part of this methodology is concept ekropy which is synonym to concept syntropy. It is mentioned in his article Twelve Axioms of Economics (Pauli 2013) which is part of broader article The Science behind ZERI (Pauli 2013).

2. **Gross National Happiness GNH concept** is new complex concept of economy, which is based on more comprehensive set of indicators of Gross National Happiness. This concept was developed by king of Bhutan Jigme Wangchuck in the year 1972. The purpose of Gross National Happiness is to measure the quality of life as the happiness of citizens of Bhutan. The concept of Happiness is similar to the concept of syntropy because we can state that happiness is incompatible with entropic environment and compatible with syntropic environment.
3. **6th Kondratieff Wave Economy** - German economist Leo A. Nefiodow published the book 6th Kondratieff, based on the theory of long waves of economic cycles with period 50 to 60 years. The economy of 6th Kondratieff wave will be according to Leo A. Nefiodow primarily anti-entropic (Nefiodow 2006). We can characterize it as syntropic or as a syntropic economic system.

Sustainable Development and Dawn of the Syntropic Civilization

The threshold of new syntropic civilization is now visible and under the cover of bankrupting global industrial economic system as also the system of global casino capitalism we can see new patterns of emerging syntropic economic and societal systems, which are to replace the old unethical entropic economic and societal systems.

We can see the new emerging syntropic economic theory in the works of R. Buckminster Fuller, Hazel Henderson, Ernst F. Schumacher, Helena Norberg-Hodge, Sara Parkin, Steven Gorelick, Barbara Marx Hubbard, Gunter Pauli, Ernst Ulrich von Weiszäcker, David Korten, Alvin Toffler, Heidi Toffler, Jigme Wangchuck, Karma Ura, Leo Nefiodow, John L. Petersen, Mark Anielski, Ulisse Di Corpo, Antonella Vannini, Guy Dauncey, recent reports, publications and concepts of Club of Rome and many others.

We can see the dawn of syntropic civilization, a world without struggle and destruction, a world of new humanity, a world of abundance, a world without poverty.

This new syntropic civilization will be also the big step to transition to space age stage of human civilization. The Spaceship of Earth has therefore be navigated with using of new manual of syntropic economic theory.

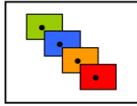
Conclusion

The time of global crisis is also characterized by an emerging number of new economic theories as the new economics; green economics; steady-state economics; geonomics; bioeconomics; socioeconomics; regenerative economics; humanistic economics, real-life economics and many others.

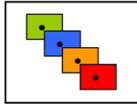
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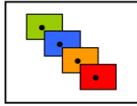
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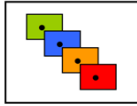
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