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On the Road to the 'New Economy': Labels, Patterns, Blueprints, Strategies and Policies

The phenomenon of "new economy" requires deeper research, good conceptualisation, and correct interpretations, which will not follow scientific or journalistic trends. Rash labelling of both economic and social phenomena and processes must be replaced with a comparative analysis of the emerging conceptions and theories. On this basis models can be generated of how to understand and deregulate the processes and how they work. It is an important step towards the creation of prospective and multi-variant strategies and policies to stimulate the new economy – based on the one hand on the new possibilities of science and technology, the benefits of global scale, and on the other hand on the real possibilities of

1. The description of economic processes and phenomena in the last few decades is connected with different way of labelling thereof, where assigning labels reflects not only the nature or new features of the processes and phenomena, but it is also an expression of scientific and journalistic trends. As a result of this we have to do with substantial conceptual disintegration in economic descriptions and analyses. What is more, some of these labels have a highly selective, or in fact private, nature and give the illusory impression that the new features of the economic and social reality that they emphasise dominate over all the other features or even exclude them. It is necessary to scale, rank, and measure the investigated phenomena and processes, to determine their scale, range, depth, intensity, influence, effects and results, including side effects and negative results. Thus, it is not so much a problem to collect the data, document the facts, analyse the statistics, etc., as to formulate right concepts and interpretations. Meanwhile, the economic sciences (or even broader, the social sciences) get stuck in tradition and old stereotypes, while at the same time they often assume the form of hasty statements and turbo-interpretations. There are, of course, many reasons for this. One of the main reasons is the complexity, diversity and changing nature of the economic "matter", not to mention its probably more and more evident connection with political, military, social, cultural, psychological, ecological and other phenomena. The actual penetration of these phenomena into the economic ones, the positive and negative interconnections, interference and chaotics – all this gives rise to enormous perceptive, intellectual, analytical and interpretational problems, leading to excessive simplification, simplistic models, and private interpretations.

All this is backed by the *ideologisation* of science, with its disturbing historic continuity, which consists in presenting scientific theses in a persuasive form, or even in the form of propaganda, in a categorical and absolutist manner, often setting the views of other people in line with own interpretations. What is more, it seems that the ideologised theses exert greater influence – through the mass media, the public opinion, the parliaments, and the politicians – than those analyses which strive for objectivism and exactness, and which by their nature often are ambiguous and simple in interpretation.

2. Let us try to name the different labels of economic, and other, phenomena and to determine their possible relation to the "new economy". In this context it will not be possible to avoid broader references – to the civilisation and the society.

However, we should remember that the names themselves often have a limited explanatory value, and sometimes they even may give rise to misleading connotations.

It is possible to say *a priori*, that the labels, which have been used in the last decades, have formed – not so much intentionally as *de facto* – the concept or rather the feature of *newness*, characterising the present economy in the leading countries in the world.

The "new times" can be referred to – in the most general context – as Habermas' "new opaqueness", but also the New Age, and the "new" market (which functions widely in the cyberspace) – the market of religions and ideas. This is so much different – in the present post-modern age (whatever it means) – from Weber's description of the development of the capitalist economy.

For many authors the 20<sup>th</sup> century is equivalent with a new era or a new civilisation (cf. A. Toffler, for example). Many authors wrote about a technical civilisation (V. Ferkiss or J. Ellul, for example) or a scientific and technical civilisation (R. Richta, for example). The Age of Systems was mentioned (R. Ackoff), and the crucial role of the system-based approach was pointed out. Many authors wrote about the Information Era, the spreading of the mass media,

etc. Still other authors paid special attention to the foundation of the modern technology – electronics. One of the first ones to do this was Z. Brzezinski, who invented the concept of the Technotronic Era, which was then inflected in every possible way: e-economy, e-society, ecommerce, and even e-world. The anthropologic conception of the Reverend Sedlak – homo electronicus - had another dimension. It is also worth to mention McLuhan's electronic global village. The element of newness consists here mainly of the new discipline of technology - electronics, and particularly microelectronics. Hence such labels as (micro)electronic revolution or microprocessor revolution (the latter extends today to biotechnology through the idea of a biochip).

Even other breakthroughs (connected with at least a partial change of the internal paradigm of the given discipline and a revolution in its applications) got the name of a revolution. One could read about revolutions in telecommunications, information, telematics, material technology, biology, biotechnology, and other fields. In other contexts cybernetic, managerial or humanist revolution was mentioned (the last one was to be a delayed reaction of the society, which was not able to keep up with the technical progress). In the philosophic and social thought attempts were made to express the new phenomena by the not quite clear notion of postmodernism (cf. Lyotard, Baudrillard, Giddens, Bauman). The futurologists looked even more ahead into the future and, emphasising the growing "artificiality" of the man, his life and his world, talked about the approaching posthumanism (the Posthuman Era).

Did the above mentioned examples – only the more important ones – of labelling different changes reflect, even remotely, the processes that took place in the economy (of the developed countries) or, on the contrary, were they an inspiration for a new nomenclature in economics (such as information economy, e-economy, new economy, etc.)? The answer is quite difficult, since the transfer of knowledge (and notions) between disciplines is limited by their excessive separation and academic nature. The postulates that the multi-, inter- and transdisciplinary research (and thinking) should be developed are still poorly implemented. This limits the possibilities of reaching an agreement between sciences and the application of sciences in practice which never is monodisciplinary. This has far-reaching consequences in economic policy, for example, not to mention the understanding of interdependency, interactions and interconnection between economy, society, politics, etc. Can the development of the so called artificial intelligence and the strive for knowledge-based economy and society overcome this?

Can the economists, in the above mentioned situation of quite arbitrary labelling of economic processes and phenomena, have any coherent Weltanschauung which would enable correct theorising and an effective influence on those processes? It would be more cautious to talk about a "decent" level of understanding the complex world of these processes – one that would make it possible to avoid major errors and misunderstandings (in theory, economic policy, business, and the activities of the civic society).

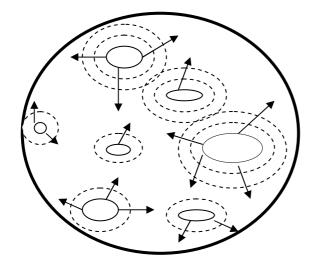
3. Despite the networking processes of economies, the virtualisation of economic activity, the electronic transfers of money and the enormous speed of operations, the old, traditionally "material", processes have not disappeared. The information sphere signifies a serious qualitative and structural modification of human activity, but it does not exclude because it cannot exclude – the "traditional" material production of coal, crude oil, gas, food, cars, aircraft, ships, clothes, paper, computers, machines and equipment, watches, shoes, toilet paper, vodkas and wines, etc. What is more, the production of these things grows, despite the tendencies and efforts to economise. These so much real economic processes are not suitable for the mass media any more, and the economists are losing interest in them. Meanwhile, the world leaders, who mark out the standards and the trajectory of the new economy, are usually also leaders in agriculture, production of food, means of transport, energy carriers, etc. It is worth to look up the statistics. Even the so called virtual reality has its physical substrate in the form of hardware and software. It cannot exist without computers, disks, cables, satellites, recorded software, and... electricity.

Therefore, one should use the new notions with caution. As history teaches us, the industrial civilisation replaced the agricultural one not so much by eliminating its "object" and results, as by increasing enormously its productivity and work efficiency, and by introducing - recently - biotechnology, etc. The situation is similar with the next civilisation (or its stage) - the information civilisation, which does not eliminate the manufacturing activity of the industry, but modifies its components, structure, results, management methods, etc.

Therefore, the transformation of the old, traditional economy into the new economy can be modelled in different ways. And thus, one may assume that some sort of embryos of the "new" come into existence in the old economy, which can be also isolated spatially, for example, the information sector or – according to another classification – the high-tech (advanced technology) sector. The embryos then grow and squeeze out "the old" (which dies out, disappears – like, for example, old industries or centres). This process is analogous to the way in which cancer cells "devour" the body.

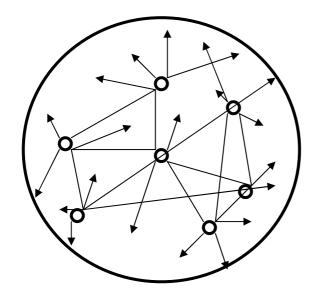
One could also imagine the process of transformation into the new economy differently, emphasising not only the origin of the embryos of "the new", but also their growing influence on "the old" - an influence that not only replaces, but also transforms. The old does not disappear completely (in both models and in real world), but it can be dramatically modified (the word "modernised" seems to weak and out-of-date).

The above conceptualisation has, as it seems, substantial significance for economic thinking, for taking decisions – both strategic and adaptive, for choosing the goals and the instruments of economic policy. The simple dilemma - to build on ruins (wrong understanding of Schumpeter's "constrictive destruction") or to transform – becomes very complex, when the cumulative model of transition to the new economy is used (see the figures).



The model of growing and replacing

(the embryos of the new appear, for example, as intrasystem innovations or transferred innovations, they grow and replace "the old" which becomes a quasi-environment for "the new" (the dashed lines indicate the subsequent points of time until a certain t<sub>n</sub>)



## The transformation model

(the influence of "the new" and its embryos – mutual, synergic and on the other ones - is emphasised; the mutual connections as well as the connections with "the old" are stressed, as well as the radiation of "the new" and the interconnections, including the negative ones)

If present the models spatially (in a three-dimensional space, for example), then in the second model there will be four sub-spaces – "the new", "the old", the transformed and the being transformed. In a multi-dimensional space it is in principle possible to increase the number of parameters that characterise those sub-spaces (which can be significant for selective economic, technical, scientific, educational policy, etc.).

If in the above economic change models we also take into account non-economic parameters – as not everything is economy or is connected with economy (there are, for example, elements which belong to several aspects, such as the social capital), then we can also assess these models from the point of view of simultaneous (or close in time) social change. The above models are characterised, implicite at least, by different degrees of confliction or, in a wider sense, of taking place of the change (transition). One could also take into account – by increasing the number of non-economic parameters – the social resistance (and costs), cultural barriers, etc. Of course, a lot depends on how much radical the change is and how fast it takes place. But also, a lot depends on its "technology", manner, or pattern, and therefore also on strategic and adaptive interactions, on decisions and policy.

The time horizon of the analyses is also important, as well as the time horizon of decisions (it is possible to build models from the current t<sub>0</sub> to a certain t<sub>n</sub>), which contribute with forecasting modifications (it will be useful to consider different variants thereof, different scenarios, different levels of confidence in the assumptions, the trends, the future, etc.).

In order to bring the models even closer to the real world, one could identify *driving* forces of changes (assigning suitable parameters or sets thereof to them). Finally, if we consider the causativeness of human (decision-makers, performers) decisions and actions as proven, even if not devoid of chaos, unintended effects, poor results, etc., it is worth to introduce the actors of change (from stars to extras, sticking to the theatrical metaphor, often used in sociology or political science) into the model – even more extended and complex. The introduction of these actors (including – what is especially important – the institutional ones) also means that we enter politics in its strict sense.

Finally, one remark regarding the figures which represent the models. Due to technical reasons we do not present *the cumulative model*, which combines the features (parameters) of both the models, i.e. a model that covers everything – the appearance of the embryos of "the new", their growth, and all relations, interconnections, interference, etc. Today, the computers (or more precisely, supercomputers) make it possible to model and run tens of thousands of variables in a short time. Of course, it is also necessary to "strain" the formally correct, but economically nonsensical variants, from the substantially correct ones. Efficient procedures of this type were already used back in the 1980-tues in the GLOBUS model, which represented the contemporary world of that time (divided into groups of countries, characterised by a huge number of features – variables). Special practical significance can be found in variants that are generated in opposition to the intuition or in opposition to "the popular truths" or stereotypes (which can even shake the labelling that has been mentioned before in the context of describing and analysing the economic phenomena and processes).

4. The new economy must not be reduced to the information sector of the economy (the "embryonal" model) or to converting the entire economy into the information sector (according to the cumulative model). It must not be either associated only with the development and the use of information and telecommunication technology (or information and telecommunication equipment). The new economy is – as it seems – something more than information economy. The new economy includes all new areas as well as new or advanced applications of different disciplines of science and technology (or inter- and transdisciplinary projects). In other words, this means advanced science applications and high-tech areas. For

example, one could name such areas as material engineering, biotechnology, biomedicine or nanometry. These are not strictly ICT areas. It is also worth noting that the present structure of the economic, social and political activities of the global leaders (and particularly the USA) concentrates around four "things". These are the following: entertainment, health industries, armaments and war (military oriented research and development, industries and institutions, and activities), and finally education and training. Also the banking and insurance sector is strong. The last two sectors make a very fundamental use of ICT, and they are also very important for the economy (staff training, finance). What is more, the education and training sector produces the foundation for knowledge-based economy (and society). The entertainment sector is currently being connected with information, creating "the nourishment for the masses", so called infotainment. The health industry satisfies (and drives) the personal needs of people. The military sector (not necessarily formally separated – it is embedded in science, industries, services, institutions) evidently drives the research and development as well as the economic conditions (in fact, by means recommended by J. M. Keynes and J. Robinson). This sector is both the "producer" and the "user" of all high technologies, including the information and telecommunication technologies. The high content of science, technology and information in the above mentioned sectors does not mean that they in equal degree deal with the production of information. The model of influence (of governments, business, citizens, environment) on the development processes or maybe the model of "movement" of these sectors must be very complex, since it concerns manufacturing, usage, connections, co-operation, synergy, etc.

These sectors, their proportions and interconnections, as well as their external connections are not, of course, equal in all countries; on the contrary – they are greatly varied. The imitative model will certainly turn out to be unattainable for many (they will face developmental exclusion or, in the best case, an increase of the developmental distance). Ergo, it is hard to recommend the same pattern for everyone. Therefore, the future of the new economy in the world seems to be a multi-variant one and it is better to talk about it using the plural. Instead of trying to come to a single universal pattern, strategies and policies should rather take into account the individual features, the specificity and the real possibilities of a given economy. The descriptions of the information economy (and society) that are known from literature (see, for example, Masuda, Toffler, Dizard, Castells and others) are based on the technical possibilities and the experience of the leaders (mainly the USA for that matter). One factor which makes the development trajectories and the structures of national economies different will also be the "seven cultures of capitalism" that have already become proverbial.

Therefore it seems that the entire art of strategies and policies will consist in making use of new possibilities (including the transferred ones), in trying to increase and optimise them, but taking into account (in a creative way) their specificity and differences. These new possibilities result to a large degree from the features of the information and telecommunication technology – networking, virtualisation, the speed of information flow, their radiation, ubiquitous penetration, including "the rest" in the network, acting "beyond" the old structures and channels.

It is also worth noting, that the emphasis is now moving from information to knowledge, which requires a certain change of the perspective of thinking that is at the moment difficult to determine.

5. In this dissertation it is also necessary to take into account the *environment factor*. Even here the "national economy – outside world" model seems to be too simplified. Many overlapping processes take place in the framework of the developing globalisation (also the regional integration). The outside world not only transfers resources into the national economies, but is also beginning to be present in them, actually, institutionally, also as a network that goes beyond them. It not only supplies resources (venture capital, for example) or technology, but "lends" markets and, what is important, participates in taking decisions or even "rules" in an absolute manner. One can see here both the influence and the presence of transnational corporations. If we also add the extra-economic influence (corruptive or political, for example), then the external inspirations of the new economy can be evaluated in different ways, both by the "donors" and the "recipients".

The relations, that are being discussed here, can be modelled in different ways. The proportions of the own, shared and foreign elements in the economy (not so much national economy as within a given territory) are among the important things. The interconnections, interactions, influence forces, not to mention the distribution of benefits are also important. On the one hand globalisation is some sort of network above the countries, a network that enters them and becomes connected with their elements, but on the other hand it is a down-top process that is expressed in a conscious, strategic, co-operative or purely market-oriented, commercial, spontaneous "accession" to the globalisation processes.

The external factor is expressed in different ways, as the transfer of technology, knowledge or skills, as trading with foreign countries or the world, as co-operation, participation in integration processes, "exposing oneself" to the global competition, etc.

The nature of globalisation gives rise to controversies – some people stress its spontaneousness, resulting from the de facto uncontrollable development of technology and the market expansion (immanent to the capitalist management system), while others point out that even in an element (like a rushing river) one can move in different ways, more or less efficiently, more or less sensibly or beneficially. Globalisation – like everything – is subjected to the *regulating influence* of its actors, especially large states, corporations and organisations. The globalisation processes can be represented by creating, for example, dependency degree models of those subjects which participate in them in an active or passive way. The possibilities are varied both in theory and in practice: from hegemony vs. full subordination, from co-operation and integration to synergy, from the position of an outsider to full exclusion, there may be also a model or resistance and fight. In the new globalisation ideology one talks about the need of inclusive globalisation, which fulfils many difficult conditions, but which ensures, at least in potentia, some kind of stability of the global system. This seems to be better and better understood, although hard competition, looking for advantage, including the use of different forms of pressure, or even violence, still do not disappear from the arena of the world economy. For the time being wrong patterns prevail.

The possible *situations in the environment* should be taken into account in the strategies and policies of states, corporations (business), international organisations and institutions, as well as the civic society and its organisations. It is obvious here that different interests and forces are going to clash. Taking into account an external factor (multi-variant, with a differentiated time horizon, with different risk levels, etc.) will enrich the models of thinking and acting of all subjects of the development processes. It is possible to balance these interests and objectives through a *political process* (either on a local, national, regional, or global level) or it will be a result of fights, egoism, private interests, coincidence, uncontrolled market forces, etc.

Is it possible for the world economy as a whole to achieve the features of the new economy or will it be achieved rather by its network part (supranational corporations, international institutions and organisations); to what extent the globalisation of the new economy is going to reach the individual economies and regions of the world – these are the questions for the future, which is to a great extent determined by the current analyses and ideas, strategies and actions.

6. It is worth to and this dissertation with a short recapitulation. Labelling economic phenomena and processed and "sliding" on their surface is easier then coming to their essence, or conceptualising, categorising and finally analysing them. The commercialisation and the mass media nature of everything, including the market of economic ideas also favours superficiality. The "packaging" becomes the most important thing as well as a situation in which the economic debate is "simple, easy and nice" (the so called analysts excel at this, using, among other things, Pythian forecasting methods as do the politicians). Therefore a deeper reflection and systematic research is necessary, especially interdisciplinary one, so that the ideas and conceptions which originate can be synthesised in a coherent way which will ensure a possibility to draw conclusions and formulate recommendations for both theory and practice.

It is necessary to describe, measure and analyse the *real processes* and the *real development patterns*. The visions and models of the future development that are formulated should on the one hand boldly look into the future, based on the progress forecasts in science and technology as well as the positive economic and political experience of the leaders, and on the other hand take into account the real possibilities, specific features and nature of the countries and societies as well as the conditions and influence of globalisation (in some areas of the globe also regional integration).

The approach to the new economy can be local, regional or global. The processes are not identical, although they are often interconnected and overlap one another. Correct models of understanding the processes are necessary for the right choices, decisions and actions of governments, corporations, international institutions and organisations, and civic society (from local to global scale). In order to ensure a success against the challenges and the chances of development brought by the new economy, it is not enough with free entrepreneurship, free market, and free commerce. What is needed is strategy and policy, as

well as institutional, legal and social regulations, etc. All this is required in order to ensure mutual benefits, stability and synergy in the relations between the "government, business and civic society". The real actors of the current transformations understand this – despite the trendy neoliberal declarations – and they take well-thought-out and strategic decisions and actions. In the Information Era proactive and far-reaching thinking and policy are necessary. There are many positive examples thereof: from Y. Masuda's older vision of information society to the recent Bangemann Report (1994), in the presidential ideas in the USA regarding the construction of the information infrastructure (information superhighway), both national and global, there is also the introduction of the Internet in education and schools, there is financing of research and development activities from both government and private sources, there is the development of people's education and qualifications, there is the support of governments for the innovation projects which are always connected with substantial risk (the American Advanced Technology Program, for example), there are the corporate strategies which support innovations well as the growing- not without certain disturbances and problems (such as the Enron scandal, and the like) – responsibility before the society, the environment and the future (which is reflected in the principles of sustainable development), there is the growing consciousness – through all actors of the ongoing transformations – of the significance of the so called cultural imponderables (not without reason F. Fukuyama emphasised – to some extent in an anti-technocratic manner – the role of confidence). Taking into account the new features of the economic and social reality (networking, virtualisation, digitalisation, comprehensiveness, interdependence, synergism, as well as the occurrence of negative side effects) in the right way is a new necessary and potentially very promising element of modelling the current phenomena and processes as well as preparing appropriate strategies.

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