

INTRODUCTION

Radical economic reforms in ex-socialist countries are facing great difficulties. It's a new challenge to economists both in the East and the West. Now it has become clear, that the passage from command to market economy will take more time than we thought previously. It's obvious as well that economic transformations should be linked with all other spheres of social-economic systems. Therefore today economists have realized the complexity of the problems. L. Csaba stated that, "a modern market economy is a comprehensive set of structures, which will not come about overnight no matter how competent policies are. Once we have understood the difference between stabilization and systemic change, we will no longer believe this process could take place over weeks or months".

(1)

Thus, if economic reforms in the former socialist countries are only a part of systemic changes, we are facing unprecedented tasks, which provoke absolutely new serious problems in economic theory.

First of all a question arises that there are no absolute analogues of such transformations in the world practice. Surely one can find some elements of the reforms, which have been initiated in Eastern and Central Europe. Comparative economic analysis is developing rapidly. Economic reforms and the policy of growth in Germany, Japan, Latin America and some other countries are studied in comparison with those in Hungary, Poland, China, and Russia etc. The matter of studies embraces the experience of financial stabilization, privatization (nationalization), structural policy, and government's interventions.

However the unprecedented, unparalleled tasks demand unparalleled, nontraditional approaches to the analysis of transformation of economic systems in Eastern and Central Europe. The transitional economy requires a new theory of transition. This theory should generalize the regularities of transition and so it should be abstract in this sense. But simultaneously it must be pragmatically. In other words, we need practical theory of transition.

Three main aspects follow from afore said.

Firstly. Never in economic history, nor country "constructed" a market economy. The latter was taking shape and was developing spontaneously. The governments in advanced market economies are only regulating the operating economic systems. They are not building market economies on the ruins of the previous collapsing societies. Correspondingly, the experience of

government's interventions in modern advanced market economies and the restoration of market system (Germany after the Second World War, Chilly) cannot embrace the problems of Eastern and Central Europe or China.

For all that some economists consider that they know what to do. And we welcome that they take the liberty of conducting reforms.

Others consider that our arrogance is too great and we need to recognize that we don't know how to "build" a market economy, from bottom up. H. Heymann mentioned, "While we can describe the functions of a market economy, we don't know how to "build" one. In capitalist societies, market relationships simply evolved, eventually into myrical, complex structures for which no grand design ever existed. Governments establishing the coordination mechanisms and codes of conduct that keep the system fair and honest. These mechanisms and codes from a kind of organism that is in continual evolution, as it responds to new problems and challenges". (2) R. Fortes expressed the same idea briefly, "How do you establish a market from scratch"? (3) The author of the paper shares their opinions.

Secondly. Under these conditions, special attention should be paid to the questions:

- Is it possible to build market economy?
- Is it within our knowledge?
- What are the limits of such "construction"?

There were the attempts to build an economic system, namely Socialist economy. But it becomes increasingly evident that beautiful dream about the society of all-embracing well being resulted in the low efficiency of production.(4)

According to J.M. Keynes the reason of this ineffectiveness lies in the alliance between economy and a new socialist ideology, which replaced religion.(5) One can agree or disagree with this explanation. But the questions put above remain.

Another great economist F.A. Hayek in his book "The Fatal Conceit" believed that economy develops spontaneously. He sharply criticized the logic: if people are able to run economy, they should be able to invent completely new economy, which will be more pleasant for them. According to Hayek economic values and institutions are not determined by people, but by some self-organizing processes, structures or models which are above them. People can intervene into economy, but can not build it.(6)

May be "building" of a market economy is a fatal conceit too?

Thirdly. I think, that a new integral, complex inter-sciences outlook for economic transformations is necessary to understand the very essence of economic growth, economic crisis, and economic passage from a command to a market economy. The well-known economic concept of "homo economicus" can only help to study some features of advanced market economy. Much more serious problems of transformation from one system to another are waiting for a new conceptions. Using a rather abstract concept of "homo economicus" we are in no position to receive practical results. J L. Csaba shares this opinion, "most economist tend to presuppose a homo economicus, with utility maximizing ambitious expressed in monetary terms. This is a valid abstraction for a developed market economy, but - as development economies amply demonstrates, may be unfit for backward and traditional societies."(7)

Now many are of the opinion that a new paradigm is urgent necessity in economic theory. G. Roland considers, that "the political economy of transition" is needed to study specific aspects of linkage between economy, politics and social interests. It should include the following problems: the option of the strategy and tactics of economic reform, the particular economic interest of various strata in the society, the political environment for economic decision-making etc.(8) Undoubtedly, the integration of economical, political and social aspects will be fruitful. For example, non-economic contradictions (political, cultural, psychological) in Russia, noticed by "Fortune", "clearly, as the 20th century near its close, the clash between Russia's European aspirations and Asiatic political traditions has not been resolved." (9) L. Abalkin expresses more radical opinion, "Today the need of a new paradigm of the economic theory which will be able to solve the contradictions accumulated in this science, to formulate an integral and logic understanding of the present day's processes is growing. It appears that this concerns both national and world economic sciences. In the long run it is caused by the fundamental changes in the human civilization development... The highest synthesis of knowledge is needed to paint a qualitatively new integral picture of social-economic development." (10) In my opinion, in response to the unprecedented challenge, solving the problems of transformation of a command economy into a market economy, economic theory should integrate principal theses of the theory of self-organizing systems. It is the conditions:

- 1) to find the correlation between economic theory and economic policy,
- 2) to work out economic scenarios and models of transition to a market economy,
- 3) to see the course of economic reforms in a proper perspective. / It will help to search after answers for the

questions formulated above.

Of course I only try to apply the conception of self-organizing systems to the economic matter. This paper seems to be a working hypothesis.

HOW TO ASSESS REFORMS?

As is known, one of the main problems is how to assess the course of the economic transformations, how to "measure" the progress or failure. Are there objective criteria? If yes, how to formulate them? It's not news that one and the same fact some experts interpret as a success while others as a deadlock.

In general, there are three principal approaches.

I. Main economic indicators:

GDP growth rate, industrial and agricultural output, volumes of exports and imports, unemployment rate, consumer prices indexes, investments, foreign debt etc. Kornai believes that seven of them are of great importance: inflation, unemployment, budget deficit, foreign debt, balanced growth, distribution and bureaucratism. (11)

In recent years the main economic indicators in Eastern and Central Europe and Russia in particular, look gloomy. (See Appendix A, B, C.) In Hungary the fall of GDP between 1989 and 1991 was 11.7, in Romania - 18.6, in Poland 19%. The fall in industrial output was in Hungary - 27.2, in Bulgaria - 38.21, in Poland - 40.1%.(12)

In Russia Sept.-Jan. 1992 GNI make up 80% of the GNI Sept.- Jan. 1991, and industrial output - 82.4%.(13)

Unemployment is a crucial point. According to official figures, there were out of work by the end of 1991 in Bulgaria -

II.1, Czechoslovakia - 7.5, Hungary -8.0, Poland - 12.0, Romania - 6.0% of the population (See Appendix A) "The reasons for this accelerating joblessness are: a constant fall in internal demand and real wages, the collapse of trade with the former Soviet Union, the closure of big state enterprises... In all of Eastern Europe, young people are among the hardest hit, often at a time when they are seeking their first paid employment, as are women".(14)

In Russia only 442.2 th. People we registered as unemployed, but their number has increased

7.1 time during the last year (1992).(15)

Experts forecast an economic crisis in 1993 too: GDP will fall by 27%, GNI - 28%, industrial output - by 22%.(16)

Undoubtedly, such indicators are speaking about economic crisis. But when analysing transformation processes points of view differer very much. H. Schmieding, for instance, considers "The transformation crisis is defined as a decline in real GDP that is attributable to the systemic transformation from a Soviet-type economy to a market economy".(17)

J. Ross, on the contrary, believes that the transformation Crisis does not inherent in every economic reform. He compares the main macroeconomic indicators of Eastern and Central Europe with China's indicators, where since 1979 average annual GDP growth rate has increased by 8.8%, industrial output by 211.2%, employment - by 3%. (18) Ross concluded, "Why economic reform in China which was started in 1979, became the greatist example of economic success for the whole world, while economic changes both in Eastern Europe in 1989 and in Russia since January 1992 caused the greatist in the world economic catastrophe?" (19)

2. Financial stabilization

Some economists and politicians are inclined to view financial stabilization as an only manifestation of economic reforms success. T. J. Sachs belongs to this group. As an advisor of IMF and World Bank he prescribed the same economic medicine to every country:

- Macro-economic stabilization,
- Liberalization of market,
- Radical privatization of state property,
- Construction of a social safety net.

All measures are taken very quickly and simultaneously. Sachs recommended his economic panacea to Bolivia, Peru, Argentina, Venezuela, Yugoslavia, CSFR, Slovenia, Poland, Ukraine, Russia, Mongolia. His critics stresses, "His policy of shock therapy and overnight change,... has deeply destabilized nations.

There are also no clear indicators as to the success of his Policies." (20)

As to Sachs he considers that he succeeded, because:

- Financial stabilization is established,
- Hyperinflation is curbed,
- Money supply is controlled,
- Infrastructure and new sectors are developing.

In Bolivia the rate of inflation decreased from 30.000 to 18% and in the last five years growth rate was steady. Social price is very high: 1/2 of the population lives below datum line in terrible poverty. How to assess this fact? But Sachs is looking for future.(21)

3. *Transformation of economic system (Comparative approach)*

The US Center for International Private Enterprise in 1990 launched a comparative investigation into economic reforms all around the world. They selected 30 countries, including four from the former socialist bloc: Hungary, Poland, Czechoslovakia and USSR. Researchers collected information about various aspects of changes in reforming countries. They found nine key policy categories: trade liberalization, foreign exchange management, financial market liberalization, prices and wages, fiscal and monetary policy, privatization, foreign investment, access to information and the environmental policy. One can see 23 policy options corresponding to the nine key categories in the Appendix D.

Then experts tried to judge about the importance and weight of each option. They evaluated a pre-reform and reform period. 100 percent rating represents the ideal, 80 percent - very high performance, 60 percent - high - moderate, 40 percent - low moderate, 20 percent - low, zero - no commitment to achieve the ideal. Of course, the method is not very accurate and rather subjective. "The Economic Reform Today", representing it, remarks, "Because the process of assigning policy weights is highly judgmental as no consensus of opinion exists on the relative importance of one policy option over another, both weighted and outweighed matrices are included in the survey."(22) One can find economic reform country ratings in the Appendix E.

In economic literature there are other attempts of comparison. For example, UN "Economic Survey of Europe in 1991-1992" published a comparative table of characteristics of stabilization-cut-reform programmers in Eastern Europe (Appendix F).

In my opinion, despite all negative aspects of such methods they are rather interesting and useful.

4. *Public opinion*

Public opinion is of great importance for the decision-makers. People can support or block reforms. But it deviates from the theme of my paper.

Thus, the catalogue of possible approaches to accessing reforms showed their controversial nature.

OLD ILLUSIONS

What illusions hinder us in accessing economic reforms?

a) We are in captivity of equilibrium psychology even when speaking about reforms that in their nature disturb the equilibrium of the economy. Common sense dictates both economists and politicians the necessity to restore the balance as it was have been lost. Thus, we are always against destabilization. The reasons of such understanding of the development consist, on the one hand, in the economic theory tradition studying states of balance first of all, on another hand, in human psychology, which is mainly basing on stereotypes. The latter is well known to managers, "Change has no constituency. People like the status quo. They like the way it was. When you start changing things, the good old days look better and better. You need to be prepared for massive resistance... If your change isn't big enough, revolutionary enough the bureaucracy can beat you. When you get leadership, who just nibble away at things, nothing changes. I think that's true in countries and in companies."(23) There is another illusion-of the best way of reforming. As a rule, these are politicians who tend to state, that there is no any alternative to their economic policy. Experts tend to find the optimal course with the best set of economic indicators. The question is not so simple. On contrary, it looks an extremely complicated. (Below it will be discussed theoretically.)

Economic policy in Western countries has already shown that it's possible to find an alternative scenario as well as it's impossible to find the optimal variant. As is known the strategic priorities of economic policy in these countries were changed from time to time: growth rate, unemployment, inflation, and state budget. In the middle of the 70th structural economic changes became the leading one. In the long run, Western economist draws a conclusion, that to reach optimum for all indicators simultaneously is impossible. So, this task was called "magic quadrangle": Growth rate , Prices (Inflation), Employment (Unemployment), State budget.

c) An abstraction of "free market" is the next illusion. The result of its use in Russian economic reform is becoming apparent in the chaos in the economy and the "black market" flourishing. I share the opinion of V. Kornjakow who considers that an abstraction of "free market" is alike an "ideal gas" in physics. Such abstractions help sciences in defining their laws, but the life differs very much. Now reform-makers have found themselves between two abstract concepts: "free market" and "totalitarian economy". But when we are looking at the concrete world, we find out that principles of "free market" don't operate, as a rule, "Instead of free market modern economists can see a new reality: diversified high-tech complexes which surrounded by average and small business in industry and services." (24)

d) Another very popular illusion is that there is a direct correlation: decision - action - result. If we are doing everything in our power, the result will have to be good, the target should be reached without fail. But it's not the rule. Very often the result is unpredictable, because we don't know the regularities of transition to a market economy.

a) Without going into details some more illusions should be mentioned.

e) It has become more or less evident that it's impossible to impose our own rules on the economy to achieve efficiency.

f) Every national economy is a phenomenon. Peculiarities have the same rights as regularities.

g) The illusion of a painless economic transformation has disappeared. A temporary decline in average level of living.

SELF-ORGANIZING SYSTEM: WHAT IS IT?

As this theory is not very well known, I'll dispose some of the fundamental regularities of such systems. First of all, the theory of self-organization (synergy) is developed by the Nobel prize winner I. Prigogine (Belgian), who is one of the greatest scientists of our days. He is a great chemist, mathematician and philosopher. (27) Russian mathematicians and philosophers are conducting their own studies too. (28)

Self-organizing systems can evolve and change depending on the external conditions through compromises. Such systems are complex, unbalanced and open for exchanging of energy, information and substance with environment. Of course it can exist only within the particular limits.

Naturalists have revealed that everything in nature - from cosmos to a cell - is developing

as self-organizing systems. The equilibrium is only a temporal state. Self-organization is considered as the most fundamental regularity of the evolution. And there are no reasons to state that economy is an exclusion. _ A market economy has features of a self-organizing system. It can adapt itself to the changing conditions with the help of supply and demand, competition, flow and inflow of capital etc. Economic system is an open one, as it exchanges commodities, energy, information with other economic systems and nature. (The term "open system" is not a synonym of the economic policy of "open doors".) If economic system is isolated, it tends to stagnation. Mathematicians believe, that this theory will be the most useful for studying economic growth, economic crisis and accumulation of capital, because this is a general theory of the development.

Another question arises: How a self-organizing system functions. In unbalanced systems fluctuations undermine the order and structures. As a result the system is losing the equilibrium and little by little is drawing nearer the point of bifurcation, or a crossroad, when the system will choose the way. This choice is probabilistic. The new order sets up and the system restores a new dynamic equilibrium./

"Thus a system, - Prigogine said, - is discovering a "bifurcation chart", "opportunities design" moving away from equilibrium because of changing interactions with the environment."
(29)

There are also other features of self-organizing systems, which can be applied into economy.

- a) Any self-organizing system is walking through crises (30) . (Their depth and character, as well as government interventions are not discussed here.)
- b) The existence of two mutually linked tendencies: 1) to convergence (cooperation, integration), 2) to divergence (isolation, disintegration). These two permanently coexisting tendencies make it irrelevant to put the question of what is good and what is bad for economic development because their coexistence is the very essence of the evolution of these systems. (31)
- c) How a self-organizing system chooses scenarios of their development is not clear enough. But we know exactly that it evolves through compromises. Apparently it follows the criterion of saving energy (factors of production in economy).

NEW OUTLOOK FOR MARKET AND COMMAND ECONOMIES

I'll try to apply the main regularities of self-organizing systems to the analysis of economic

transformation in the former socialist countries. For this purpose first of all it is necessary to define, what economic systems we are reforming.

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Usually, in economic literature this term is used without any accurate definition, because we don't regard it as a term that demands the definition. As a rule, the problems of systems definition are discussed only by sovietologists (32). V.T. Remington noticed, that, "an analogous problem bedeliving the field concerns the definition of the very system we are seeking to understand. Some

scholars rejected the search for a grand concept of system. Several, in fact, denied that there was any such thing as a single "soviet" system (33). J. Hough argued that the Soviet system, like any system, was open to a variety of possible futures and contained elements that could be synthesized in a variety of regime types; its stability, therefore, was partly a matter of how the observer conventionalized the system (34).

For this topic the most interesting is what H. Heymann said¹ "we are beginning to recognize that the former Soviet command economy is also a modern industrial society. It similarly evolved a complex set of institutions and organisms, very different in form and content from ours, but arguably serving broadly similar "framework-building" purposes. The point is that, in both societies, the values, concepts, codes and institutions are deeply rooted". (35)

More over, in my opinion, command economies in Eastern and Central Europe, as they are industrial systems, are submitted to the same factors of development that industrialized market economies of the West. I mean the general regularities of productive forces. Economic reforms in ex-socialist countries were caused not only by political decisions. They were caused by the downturn in the Kondratjev's "big wave" embracing all the countries in the 80th. This is the most deep-rooted cause of the restructuring having various forms in policies of various countries of the world: adjustment, privatization, stabilization, "perestroika" etc.

So, economic reforms in Eastern and Central Europe are only a part of the world stream. And national (command or market) economic systems, in this sense, are substructures of a greater one, namely, world economy.

Very often a command and market economy are regarded as two systems with different incentives, different "motors" of development. For example, K. Laski said, "The market economy is a demand-constrained system. Given the production capacity and the price-wage relation, the actual national income is determined by effective. As a rule, effective demand stays behind the potential supply (or potential national income), resulting in some reserve production capacity and some unemployment. While some factors of production lie idle, others are used in a rather efficient way...

The command economy is a supply-constrained system. In this system factor of production, including labor, are utilized very intensively, although in a rather inefficient way. Indeed effective demand can always be (and is) generated by a fiat of Central Planning Board which in addition determines - at least in principle - the price-wage relation, adjusting it to the expected uses of final output." (36)

While the first is an economy under "pressure", the second is the state of "suction", as Kornai said.

From the position of the theory of self-organization, a command and market economies differ in the following way.

- *A command economy* tends to equilibrium. It is mainly closed from environment. It obtains a low sensitiveness to changes. This system is not balanced in economic sense, but it is stable, because it pushes away all departures from the norm.

- *A market economy* is a nonequilibrium system. The very nature of it is deviations (fluctuations) from the norm. An equilibrium looks only temporal. It is quasi-stable. It paves its own way through the alternation of equilibrium and disequilibrium. It is mainly opened for the environmental influence.

This openness is selective. If the system is opened completely, it should be integrated into other systems. It should seem to exist. (The best analogy is a selective protectionism.)

Hence, they belong to different classes of systems with the particular regularities. Therefore, partial economic reforms (in the 60th in the USSR, for eg.) were doomed to fail. But it doesn't mean that the only way to reform a command economy is crashing it. As an industrial system it has a potential for the self-organization.

ALTERNATIVE COURSES OF ECONOMIC DEVELOPMENT

Presently many experts think that economic development is alternative. But again there is no common understanding of this concept. Some consider that there is a choice between capitalism and socialism, others are speaking about two branches of civilization (a market and a non-market economy), the third mean alternative strategies for economic development or the conceptions of eco-development.

When speaking about alternatives it is implied the choice between two versions. According to the theory of self-organization, there are more than two versions of the system's development. It looks like a tree.

Unfortunately, we don't know exactly these probable courses. An economic development has multi-version character. (These are what oriental philosophers call "passes of Dao.")

And when political leaders, parties or movements are stating that their program is the only and the best one, they make a mistake or mislead the public. One can always find alternatives, but not those which we desire, but those which exist objectively at this time. At the first glance there

is a common place, but *it's a* cardinal mistake of many reform-makers.

What possibilities were real for Russia, for instance, and what alternatives were lost. In the first period of 1990-1991 it was possible to conduct the following economic policy.

- To prevent the crash of consumer goods' market, one could determine the most deficit goods of primary necessity and to find the sources of supply, taking into account the minimal level of consumption, a possible growth of the population, domestic output, the volume of import, currency reserves.
- Simultaneously the government had to initiate the program of saving materials and financial resources, as the advanced countries of the West did in order to meet energy crisis and raw materials crisis of the 70th.
- Having such background, government was able to develop a market economy, beginning with the institutional transformation and small privatization (including agriculture).

Some economists advised this. But the government, which had every prospect for success, has lost the chance.

The second period, what Gaidar's "team" did actually, they combated economic crisis, though they have declared the comprehensive economic reform including structural. The question arises, its there a sense to use monetarist measures for structural reform in the country with highly monopolized economy? Of course, under such conditions liberalization of prices caused hyperinflation and slum in production. Even suffering the crisis of payments, state enterprises don't cut prices. The main economic indicators were changed dramatically in 1992 (Appendix H).

In my opinion, nor market economy, or a financial stabilization can't be the goals for the reform. In the long run, they are only instruments to achieve some positive goals, which should serve to the interest of the nation. All the countries, which succeeded in the economic transformation, (Germany or "newly" industrialized countries) put other targets: the growth of national income, industrial output and productivity of labor, competitiveness of goods, and the higher living standards.

In the third period at the beginning of 1993 a new Russian government seems to find itself within the old dilemma: anti-crisis measures or structural transformations. It's rather difficult to understand what it will prefer. Seems it inclined to prolonging a financial stabilization program. I think, it's necessary to stimulate an effective demand by all possible measures. But in contrast to the first period it's much more difficult, because of anti-inflationary policy, which should be nevertheless, subordinated to the structural transformation. What urgent measures should be taken?

Selective incentives for industry (taxes, accelerating depreciation, selective credits etc.)

- Two groups of priorities: 1) food production where foreign investors welcome, local and foreign companies have equal rights and incentives; 2) competitive productions with Russian high-tech, where local companies (state or private) will receive priorities and the state protection.

- The restoration of common economic space (national market) of the former republics.
- To freeze prices in monopoly sector, liberalizing prices in non-monopolistic one, including agriculture.
- To implement fair wage-indices.
- Dependently on the situation, food cards may be used too, as the last measure.

Returning to the ideas of self-organization, I conclude that /our task is not to choose the best scenario, but not to choose the worst one. Economic transformation is not a passage from one pleasant state to another. So, the theory of self-organisation undermines our optimism, on the other, turns it into another direction, because there is alternatives to any economic policy.

ONCE AGAIN ABOUT STATE AND PRIVATE PROPERTY

The most important aspect of self-organizing economy is the correlation between state and private property. It's not correct to ask, what type of property is better or more efficient. For a self-organizing system the cardinal aspect is the correlation between them. The reason lies in the very nature of such systems. It can operate only including the order and the chaos, firm constructions and fluctuations, government's interventions and free entrepreneurship, cooperation and disintegration.

The relations between the order and chaos should be regarded from a new point of view. I. Prigogine considers, that the order is always moving to chaos, to the disorder. The latter, in its turn, is the source of any order, and he proved this mathematically. According to him, "The order and the chaos are not opposites, they are inseparable." (37)

The relativity of the order and the chaos is demonstrated by the following examples. A crystal looks like something unshakable, but atoms are in continuous and chaotic movement in it. On contrary, the motion of liquid looks like a chaos, but physics came to conclusion that streams have there own order, which can be described mathematically. May be, the chaos is a

part of some unknown regularities. In the economy a chaotic movement of capitals can result in average rate of profits, the proportionality is the result of disproportions and crisis etc.

While economic theory mainly is concentrating on economic stability, economic equilibrium, there exists more sense to study changes, transformations, growth, motions. What we consider as stability is quasi-stability, which exist enough time to be worth our attention.

So, from this follows, that it's not right that under all conditions private property is efficient, while state property is inefficient. Therefore, privatization is not a panacea for the countries, moving to a market economy. A. Inotai noticed, "One of the most frequently heard arguments in favor of privatization is improving efficiency, due to stricter monetary control and better allocation of resources. However, there is no overriding evidence that private companies are under all conditions more efficient than state-owned or state-controlled firms." (38)

In Russia many people think, that total privatization will undermine monopoly structures. Thus sufficient grounds for a market will appear in economy. They think that the diffusion of capitals leads directly to a free market. It's not accidentally, that in Russia big and average state-owned enterprises must be transformed in public companies (joint stock-companies) only. Several aspects of this decision can be criticized.

- Who will buy shares of inefficient or unknown to the public enterprises? Who will buy shares of inefficient giant factories?

- The Russian Fund of Federation Property as a monopoly institution will be able to concentrate the expanding volume of property, if shares are not sold.

Therefore, some state enterprises have changed their names and under the mask of joint stock companies will stay state-owned or mixed.

-The diffusion of capitals among small shareholders serves first of all to the populist goals. It will have a bad effect on efficiency. It will take time until the "core" shareholders will form. By the way, in France or Great Britain the distribution of shares of big state companies in the course of denationalization from the very beginning was determined by the state. It was aimed at forming a reliable "core" of shareholders. As a rule, the shares were distributed in the following way:

15-30 percent - to the "core" shareholders (private companies)

10 percent - to the personnel,

up to 20 percent - to foreigners,

the rest percent - to the public.

Can such approach help to form structures of a modern market economy in a proper way? As minimum two sides of the matter are mixed.

Firstly. Of course, under conditions of the state monopoly dominance in the economy the liberalization of prices results in production cutting and price rise. However, it doesn't mean that all state enterprises should be converted into private, and all big enterprises should be splinted into small or average firms. Secondly. State and private monopolies have to operate in non-monopolistic environment. Then they will be converted into oligopolies. A competition, markets segmentation, a differentiation of products will come into existence. Efficiency of the entire economic system will grow.

The economics of advanced countries display a coexistence of various organizational forms of private and state property with various proportionateness, where private property prevail, but state property is not destroyed as some former socialist countries are trying to do). Thus the way to a market economy passes not through privatization alone, but in through searching of the proper correlation between private and state property. There is a button, which starts a motor of economic development. It concerns to the correlation between government interventions and market forces as well.

And as the role of state and private companies in advanced and former socialist countries is a different in a command and a market economy, the way of transformation is long. "While the share of state-owned companies in the production of GDP amounted to 12 percent in the EC at their highest level, by the end of the seventies, in Central and Eastern Europe these firms represented 65 percent of total output in Hungary 82 percent in Poland, and above 96 percent in the GDR, Czechoslovakia and the Soviet Union." (39)

The following table shows (oversimplifying) the trajectory of the passage from a command to a market economy: (4)-(2)-(1).

Ownership on	Types of regulation	
the resources	market	centralized planning
Private property	(1)	(3)
State property	(2)	(4)

HOW TO "ASSEMBLE" MARKET ECONOMY?

In previous parts of the paper we spoke about some regularities of self-organisation generally and in economy in particular. The conclusion was that, if a market economy is a self-organizing system, people are not able to "build" it. Therefore, a new question arises. How people can give the impact to the passage from a command to a market economy? The theory of self-organisation uses the term "assembling" of systems. There are several possibilities of "assembling".

Speaking about economic systems, I single out three approaches, which I named: 1) "Impulse"

2) "Environment"

3) "Crash"

1) "Impulse". The essence of the matter consists in giving a selective powerful incentive to changes, which transform the entire system. This is an incitement to the system to evolve spontaneously. This is the push for self-reorganization. Mathematics proved that in such systems probable courses of events and result may differ very much dependently on the links we have chosen for the impulse, even if the systems are similar.

2) "Environment". One can transform a system through changes of the internal and (or) external environment. Then a system evolves itself. This approach is a sort of total transformation. 3) "Crash". As a system is crashed, it will organize some structures from the chaos itself. After the crash people can't use scenario "Impulse", because there exist no grounds for the self-organisation.

The "launching" moment is an extremely important, because this is the impact determining the course of the events. As a rule, decision-makers don't attach enough importance to the problem of the reforms starting. Within the conception of self-organizing systems the very start of changes will determine the future evolving. If changes are powerful enough to shake the system, if the process of self-organisation is started, nobody and nothing in the world can stop the process, until it will exhaust itself. This can be compared with a snow-slip in the mountains. It can be a growth or a collapse, an "economic wonder" or a crisis. In this connection, governments' rushing about from one economic line to another seems the most harmful.

The versions of the systems "assembling" are enumerated, beginning from the most to less efficient. The scenario "Impulse" is the most efficient, because the final results exceed the starting impulse by many times, boosted by the system itself. The minimal impulse may cause grandiose transformations. In physics this phenomenon is called a resonance. Self-organizing systems

possess by this feature, especially in transitional periods. Mathematicians believe that in these periods, when an economic system deviates far from equilibrium, even the activity of one man may exert great influence over macro-economic situation. In these periods the efforts of each man are availing. They are not smooth in the macro-economy. Sometimes the efforts, the decision of one man may cause a "chain reaction" in the economy and outweigh powerful economic process. (40) But this scenario demands a lot of time and patience.

Let us consider the concrete scenarios of reforming. For economist it's not very difficult to draw an analogy with the economic reforms in the former socialist countries. China, for example, chose the scenario "Impulse", Hungary - "Environment", "Russia - "Crash".

1. The reform in China was started in agriculture and then in small business. By means of such cardinal turn in the correlation between state-owned and private enterprises, between non-market and market forces of the economy competition began to function, an effective demand has increased without crashing the state sector. In these circumstances a new internal environment favors the development of self-organisation. People in China didn't suffer in transformations. Their living standard is growing.

So far the starting impulse provoked a resonance in the entire system. (The economic conceptions have something in common with old oriental philosophy, which knew a resonance phenomenon. It says, that under some conditions weakness can defeat strength, mildness can defeat firmness.) At present China enters the next phase of the economic reform.

2. The most of countries in Central and Eastern Europe are conducting a policy calling in this conception "Environment". They can practice "shock therapy" or evolutionary changes scenario, but the very core is similar. The difference consists in the factor of time.

The theory of self-organisation considers the factor of time not only as the length of transformations, but it includes the problems of various speeds, synchronization, impossibility of returning back (to the old good time).

"Shock therapy" has it's own logic: to synchronize and to accelerate the formation of market environment, but the "price" of this policy in social sphere is extremely high and painful. Evolutionary changes scenario does not decrease this "price", but people feel better.

In both scenarios an economic system deflects very far from the equilibrium. Therefore, the decline in production in Central and Eastern Europe is comparable with those of the great economic depression of the 30th. Nothing can be done. In this scenario a command economy will be

converted into market only when it deflected far enough from its equilibrium. H. Schmieding pointed out "as long as proper market for some important factors of production, notably capital, entrepreneurship and corporate control, are still missing or are not yet sufficiently developed, the liberalization or other market and the relaxation of central controls may cause a decline in GDP. Note that this is not an argument against liberalization. Rather, these considerations point to the need for keeping the perhaps inevitable time span between the liberalization - or evolution - of different markets as short as possible." (41)

3. In the former soviet republics (may be except Kazakhstan) economic reform was started beginning with a crash of the previous economic system, when governments mainly lost a control over economy. In the first phase there existed attempts to "build" a market economy by revolutionary methods. These ideas and situation are comparable to those revolutionary methods in building socialism.

Under the pressure of internal and external circumstances -both economical and political - Russia is found itself on the third, the most inefficient way of transformations. Russia has already lost a chance of using the scenario No 1. Moreover, being on the ruins of the previous economic system it cannot implement monetarist prescriptions. They don't work in non-market conditions. Even without going into details, one can judge about the present situation by the latest data. In 1992 in Russia the share of non-state enterprises in their total number was 6 percent. (42)

The situation pushes Russia to administrative methods of "assembling" a market system. It's not exclusion in the world practice. In Chile monetarist policy was conducted not in the conditions of democracy, as monetarists believed before, but in the conditions of strong administrative interventions. (But in Chile there existed a market environment.)

The paradox of the present day conditions for the economic reform in Russia consists in the contradictory role of the state. It must create a market environment, which will limit its role. Therefore the state must grip itself in a vice by their own hands.

Thus, Russia has lost a chance of the regulated spontaneous development and found itself on the way of "assembling" each element of a market economy.

CONCLUSIONS

In this essay I try to acquaint economists with the new world outlook, firstly appeared in natural sciences. It looks very important because the new philosophy of self-organization is winning

the recognition of many naturalists and philosophers believing that this is the outlook for the XXI century. In my opinion, economic theory must not stand aside.

Of course the essay is only the first touch to the matter. A number of problems are not discussed. And the most important one is a moral assessment of economic reforms. What is a "human price" of reforms? Could people survive a shock?

Self-organizing systems are developing without "thinking" about people. There is no difference for them what factors are used for restructuring. Therefore these are people, who need to take into account "human factor" and to choose scenarios including human economic security. But this is the subject of another study.

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21. This point of view is shared by E. Gaidar. But the Russian parliament doesn't share it.
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27. See: Prigogine, Ilya: Self-organisation in Non-equilibrium Systems, (with Stengers I). N.Y. 1977. Order out of Chaos: Man's New Dialogue with Nature, Toronto, 1984.
28. See: Moiseev, Nikita: Chelovek i Nooshpera. M. , 1990; "Voprosy philosophy", N. 8. 1989; N. 6, 1990; N.6. 1991; N. 11, 1992.
29. "Vopsory phylosophy", N. 8. 1989, p. 12.
30. Mathematicians displayed the development through crises in the theory of "catastrophe".
31. The "cooperative effect" is known in the theory of strategic development as sinergia.

Seemly, Igor Ansoff, one of the leading experts in management, was the first who began to use the term, speaking about advantages of companies' merging. He expressed the effect in the following formula: $2+2=5$.

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