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Reality as a category of new political economy

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ORIGINAL ARTICLE

Abstract. The purpose of the article is to present a scientific substantiation of worldview perception as a decisive economic factor ensuring the functioning of the «Man-Nature» system. The paper offers to discuss research results on the processes of economic time warp and functioning of the general economic space in the abstract equilibrium of political economy phenomena of exchange and distribution in terms of Nature and Labour. Moreover, the paper considers the perspective of worldwide noonomic future economic patterns. Nowadays, it is declared as contributing the destruction of the binary perception of economic science reality. The research methodology is based on the principles of postclassical political economy, the principle of economic relations tensor invariance quantization, the system principle of analysis, the principle of conceptual apparatus consistency. The theoretical basis consists in the concepts of noonomics and physical economics. The scientific novelty of the study identifies extraordinary positions: on the development of multilevel economic systems; on the creation of an economic theory of education in order to provide scientific solutions to practical problems of economics as a model of social development; on the basis of scientific geriatrics. The article allows ones to organise a discussion between those who would like to expand their worldview positions in the search for value judgments about what is happening in the world around them. The human worldview defines every person and the society (economic entities – individual, a collective, a community, as well as an entrepreneur, banker, manager, employee, head or family member) as a whole. According to Yu. M. Osipov, economy and management (not only material-material-consumer, but also ideal-values-existential) define the society existence. It is clearly shown and convincingly proved by the socio-economic reality, including the military one. Worldview is both an economic factor and an object of ideological, moral, cultural and spiritual management.

Keywords: political economy; methodology of economic cognition; reality; economic future

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Reality is always the ideas of our consciousness.
Its main characteristic is cyclic nature.
Depopulation is the displacement of the material
ideas around us, including those in outer space!

Introduction

There are several reasons for global decision worldview deformation.

The essence of understanding reality deformation:

1. The reality in the evolution of the «Nature – Society» system in terms of biosphere (while preserving it) by the noosphere is considered as a capitalism prank [7].

2. Reality is actualised in the emergence of the theoretical concept of noonomics. It replaces the capitalist model of capitalist arrangement of socio-economic (development) existence. It is also implemented the emergence of world change noospheric paradigm as a tool of economic necessity of the rejection of world agreement organisation practice and collective resistance to the emergence of the sanctions.

3.Nowadays, there is a decrease in the spiritual value of work as a source of human life ahead of time [13].

4. Moreover, there are traditional capitalism attempts to transform itself into so-called «inclusive capitalism» in the contrary to V. Lepekhin's solidary economy doctrine.

5. Also the presence of economic science certainty as a trigger for creating reality from its reality as a geo-reality is considered [14].

6. Indeed, there is ignoring the role of the new political economy as a science of human economic activity in Nature, as well as the reasons for the development of scientific knowledge as the foundation of the future.

7. There is a possibility of creating special digital area in the process of radically changing the rules of life outside of Nature.

8. We can observe multinational states disintegration and the development of nation identity.

9. Nowadays, fictitious neural network financialism is considered as a sign of posteconomics (postcapitalism).

10. There is a presence of state quantum reality of socio-economic life with ideas about it.

One of the most important factors in the collapse of the USSR was the insensitivity to innovation. It causes the loss of technological sovereignty and economic crisis. Decisions in the bureaucratic system were made on the basis of shadow connections. Indeed, non-competitive economics was used mainly to justify authorities' decisions. Hence, some authorities do not care on ideology: political economy has been replaced by economics to justify government actions.

The death of the dream of justice causes a crisis in the value system and elites moral degradation. The loss of the coordinate system causes the loss of the country's development and balance between human development and the accumulation of personal capital by the elites [10].

11. The global elite hybrid war against humanity aimed at destroying the human in man.

Currently, the focus of the confrontation has shifted to the field of competitive innovative development. Moreover, in the strategic period it will determine the country's defence capability. Innovative development should be implemented in conditions of restrictions on Russia's access to modern knowledge and technologies from the collective West: the EU made such a decision on March 3, 2022, the United States – on June 11, 2022.

12. The successful introduction into the minds of people of fashion on «digital» organization of relations.

13. There is a lack of research providing the foundation for a new sociality of development, using a project-based social approach to predicting the future of humanity. The coordinates for landmarks and priorities are set by the system of national values. It is formed on the basis of traditions, created values of the present and ideals of the future. Relevant economics, which is workable in the context of the development of complex economic systems, is extremely important. Economics and development management create the future by changing the present, unlike the natural science study of the world and risk management.

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14. The mass identification of the reality of being and virtual reality [1], which arose due to: a) technological capabilities to ignore most economic phenomena when identifying economics as a science, and b) inability to isolate the essence behind computer-presented events and a «non-optimistic» attitude to predicting the consequences of such behaviour.

As a result, today youth do not understand how was Yu. Gagarin launched into space and a nuclear shield was established.

15. Therefore, IT specialists as representatives of digital reality (or unreality) claim, jokingly: in reality there are no nationality, age and personal history, there is only a well-paid corporate reality… Because the more difficult the task is set by real life, the easier it is not to solve it at all.

16. There are pronounced trends towards changing the architecture worldwide; the emergence of a bipolar world. The anthropocentrism transforms into contradictions of financial and industrial capital. The

economic relations of capitalism transform into falsehood.

17. The abolition of ideology becomes the basis of a metaphysical worldview on world economy «globalization». The digital technologies replaced ideological ones.

18. Also there is an absence of economic units for measuring reality. Nowadays, we can observe the emergence of serial time of consumer value,

19. The crisis of education: its images and patterns [13], the occult justification of eternity, exhaustion of the role of science, degradation of faith in the Lord and science, and

20. Destruction of family as a whole.

There is well-known evidence of the need for a theory for effective practical actions.

Therefore, in the beginning, we will talk about an economic theory adequate to the modern world economy. Hence, there is an issue of a category of «reality» in modern economics. In the process of evolution of economics, it characterised by a loss of certainty. The methodology of economics has become just theoretical instead of logic.

Pure economics has become the problem of intuition in economic research through the provable and unprovable, the calculable and the incomputable, thinking about the metaphysics of calculus on noonomics as a continuation of the theory. Economic theory with its equilibrium is not fine yet. And the new political economy is still very vague, and theoretically incomplete. Therefore, density of economic relations is increasing, but the role of nanoeconomic relations is weakening.

The new economic sphere is determined by the motives of economic decisions (for example, sanctions). Otherwise, most importantly, by the prerequisites and reasons for the formation of geopolitical and economic reality at various levels, sectors, and segments [3]. We emphasize prevailing of traces of economic knowledge for practitioners of economic activity. Therefore, request to economic knowledge has increased markedly. There were also risks of further confrontation between educational literature intended for production specialists, managers, engineers, economic and financial departments, pricing departments and scientific labour organization, etc.). The confrontational rhetoric of theorists and practitioners is demonstrated at conferences and symposiums. It shows the unwillingness of their participants to take into account each other's opinions.

To a large extent, there is a new increase in the problem of the gap between economic science and practice [9].

Firstly, as claimed by many authors, the geopolitical and economic world order has changed.

Secondly, the scientific and technological content and nature have changed (including digitalization, virtualization, supply and demand values).

Thirdly, new forms of economic relations have been formed; new manifestations of their deformation appeared.

Fourthly, the Special Military Operation (SMO) influences on the state.

Fifth, sanctions in the world trade has practically revived the mechanisms of state strategic planning.

Sixth, demographic characteristics and confessional family values, which usually play a key role, suggested the need for institutional regulations of people's economic life.

Seventh, there is a bestiary of economic science. A tectonic shift is needed in the conceptual and categorical methodological apparatus of economics. For instance, property acts as a relation (property of security (endowment) with power. Therefore, it is no longer a purely economic category, but a politico-economic one. Hence, political economy was removed from the list of studied economic disciplines and left only as a scientific discipline (located in the bestiary of economic science).

Finally, it is necessary to ensure economic relations with the endowment of power (the «contractual domain» system of providing power in the Caucasus and Eastern Siberia opposes the processes of endowment with power).

Main part

Part 1. The New Economic Realism

Section 1.1. The Evolution of Economics: The Loss of Certainty

The categorical apparatus of modern economics does not contain such categories as «time» and «space». These concepts have existed in the economic literature for a very long time. Therefore, we consider time in order to determine the possible essence of the new economic realism.

Time is expanding and slowing down. Indeed, time has not always existed, because motion is a way of time's existence in space. Social media is becoming a time trap. For instance, D. Adams considers time as a measure of reality. Of course, this is a subjective perception of reality.

Time is a mysterious and fundamental aspect of life.

To investigate the nature of economic time and its various aspects is the task of economics. It will determine the validity of economic theory.

The concept of reality is usually closely correlated with the concept of «time», especially in its typological and specific characteristics.

Typical characteristics are the present, past (departed) time, future (coming) time; specific characteristics in the literature usually include historical, social, psychological, economic time.

However, natural sciences traditionally consider the question of the existence of time and distinguish astronomical time as physical, quantify it in units of measurement.

Indeed, we will consider reality in economics through the allocation of economic time.

We will interpret economic time as a relationship between events; as a sequence of phenomena and changes occurring in the economic space, in its understanding, definition in our previously implemented publications [11]. Moreover, the use of economic relations quantization tensor invariance principle as a way of economic behaviour of individuals (individual or aggregated subjects) allows ones to discuss the curvature of economic time and the emergence of deformational economic relations. Its main characteristic is cyclic nature.

Time is something that does not allow everything to exist simultaneously. These circumstances are the source of the saying that money is time.

Time is an object of labour for us. This is a unique feature of our civilization. Authorities in our country are constantly experimenting with time: according to the Bolsheviks, there was a feudal system, the whole world was moving towards capitalism for a very long time, and our country will rapidly achieve the socialism; according to E. Gaidar, the country should return back into the book capitalism of the XVIII century that never existed. We will learn something there, and immediately get into the XXI century. The Russians try to remake and control time. They recode themselves, because recoding is always an attempt to reconcile the future with the past.

The «Sovok» is not a Soviet and / or post-Soviet person; it is a person who does not accept the struggle for money or social status as the goal of life. There is no functional mental action. But in politics, reality is outlined as digitalization.

By 2030, it is necessary to form digital platforms in all key sectors of the economy and the social sphere. These and other complex tasks will be solved within the framework of the new national project «Data Economy». At least 700 bn RUB will be allocated for its implementation in the next six years. The new National Strategy for the Development of Artificial Intelligence sets new goals, including ensuring technological sovereignty in such revolutionary areas as generative artificial intelligence, and language models.

Section 1.2. Inconvenient realism (economic theory with its equilibrium is not complete) is a tool for understanding the world and time

According to sociological surveys, 36% of Russians believe in astrological forecasts, 26% – in eternal life, and 32% – in aliens. Indeed, the most complex times in our history are considered to be the early 1990s – 38% of Russians believed in extraordinary things. By 2012, there were one and a half times more of them – 59%. In 2013, a survey by the Institute of Sociology of the Russian Academy of Sciences showed that 67% of Russian women and 4% of men turned to magicians and fortune tellers.

In our opinion, belief in miracles is directly related to the development prospects of a particular country.

For instance, countries with the high level of «expectation of a miracle», the interest on loans is higher, too – bankers insure their risks. However, is more difficult for marketers to predict the balance of supply and demand; it forces the manufacturer to raise the prices.

For 90% of Russians, it was a shock to find out how much of their salary the employer pays to various funds. Previously, they thought that medicine and defence were paid for from «oil» revenues. Another common belief is as follows: the main condition for country prosperity is a strong leader addressing all issues. Otherwise, stagnation of economy causes income decreasing. It, in turn, causes expectations increasing. For instance, during the 2016 crisis, lottery ticket sales increased by 46% – to almost 40 mln pieces.

These public magical consciousness provides abandoning the modern form of thinking based on the understanding of cause-and-effect relationships. Although 77% of Russians surveyed called themselves Orthodox, there is no Christian elaboration of consciousness, beliefs, and ethics: 61% did not read the Bible; 40% believe in God; 4-7% regularly visits churches.

Turning to religion has become a kind of curse against misfortune, an attempt to «protect» oneself after death. Therefore, amulets, icons in cars and queues for relics are occurred. However, 10 years ago, more people believed in witchcraft than in the honesty of the Duma elections – 48 and 47%, respectively.

A few years ago, the chief cardiologist of Moscow, Y. Buziashvili, said that Russians spend up to $ 30 USD bn a year on treatment by non-traditional specialists. Moreover, 52% of Russians trust in folk medicine; more than a third of population is sceptical of traditional doctors. Hence, any death or injury of a patient will be considered as a result of the incompetence of the physician. Charlatans are flooding the cities just against the background of this mass expectation of a miracle and the hope of healing in a supernatural way.

Subsequently, for treatment in a hospital there is a need to get a quota, wait in line, and often pay for procedures. But the patient really wants to believe in something magic could address his or her medical issues. When a person likes a decision a priori, he or she will adjust the facts to it. This caused a lot of people financial losses.

Reality real and declared (imaginary)

For instance, the legendary government program of regional gasification will be 20 years old soon. The people were promised gas pipeline coverage – above 90% of the territory, cheap gas in every village, etc. However, «for two decades Gazprom, a corporation with an annual turnover of half the state budget (6.54 trln RUB), which until recently was the worldwide largest energy company has not gasified even a third of the territory. Even on the threshold of 2025, Russia, the country with the world's largest reserves of natural gas, is in last place in Europe in terms of gasification. It inferiors to most of the former Soviet republics, including the Caucasus and Central Asia.

We consider more detail the actual reality in terms of science. We believe, the science is a factor determining in many ways possible reality in the future due to scientific and technological progress.

The term «scientific and technological progress» is in constant use by the leaders of our state. In 1999, was established the «Day of Russian Science» (February 8). Russian President V.V. Putin declared 2021 the Year of Science and Technology.

In 2016, the President of the Russian Federation approved the Strategy of Scientific and Technological Development of Russia. At the same time, V.V. Putin equated it with the National Security Strategy. By the decision of the President of the Russian Federation, seven priority councils and a coordinating council were created to unite their work. After the start of the special military operation in Ukraine, another term appeared in the lexicon of Russian officials – «technological sovereignty». This year, on the Day of Russian Science, the President of the Russian Federation stated that Russian scientists need to ensure country technological sovereignty in a short period.

However, technological sovereignty has been discussed before[1].

[1] *Firstly, the Decree of the President of the Russian Federation on May 7, 2012. No. 599 «On Measures for the Implementation of State Policy for Education and Science». Secondly, Decree of the President of the Russian Federation No. 204 on May 07, 2018 «On National Goals and Strategic Objectives for the Development of the Russian Federation until 2024». The second of these Decrees defines 12 national projects; «Science» is the one of them. By next year, according to the Decree, the national Science project should*

The achievements of Russian science can be assessed using the annual statistical collection «Science. Technologies. Innovations». It is a joint publication of the Institute for Statistical Research and Economics of Knowledge of the Higher School of Economics, Rosstat and the Ministry of Education and Science of the Russian Federation. It contains a lot of international comparisons that allow us to understand the position of the Russian Federation in world science, technologies, and innovations (data from the OECD, Eurostat, UNESCO, Rospatent, the World Intellectual Property Organization, foreign national statistical services, etc.). The collection has been published since 2009.

However, this collection contains indicator: «The number of researchers by country (thousand person-years; equivalent to full-time employment)». This and other indicators, comparisons are made for 13 countries, which the authors of the collection attribute to the group of world science leaders («group 13») according to the totality of indicators are made. Russia is not in the top five. She is ranked 6th with an indicator of the number of researchers equal to 390.5 thousand. The top five countries are as follows, thousands:

1. China – 2,405.5; 2. USA – 1,493.1; 3. Japan – 704.5; 4. South Korea – 470.7; 5. Germany – 461.6. Russia is followed by: India – 341.8; France – 333.8; Great Britain – 317.5; Canada – 191.7; Brazil – 180.0; Taiwan – 167.8; Italy – 159.0.

Data are also available for 2000 and 2010. It allows us to determine the dynamics of the number of people engaged in scientific research. Over the period 2000-2022, some countries increased their population by several times.

However, in 2000, the number of people engaged in scientific research was 695.1 thousand; China lagged significantly behind the United States, which was the world leader. In 2000-2022, the number of researchers in China increased by 3.46 times. In the United States the number of people engaged in scientific research increased 1.53 times over the same period. Thus, in Brazil, the number of scientific researchers increased 3.5 times in 2000-2022; in India – almost 3 times; in Taiwan – 3 times; in South Korea – 4.4 times.

Unfortunately, Russia turned out to be the only country on the list in which the number of researchers not only did not increase, but even decreased. In 2000, 506.4 thousand people were engaged in research in our country; decrease of 23%.

The second indicator: «The number of researchers per 10,000 employed in the economy by country.» For 2022, of the 13 countries represented in the collection, the Russian Federation ranked 10th with an indicator equal to 55. It was followed by: South Korea – 173; Taiwan – 147; France – 114; Canada – 110; Germany – 103; Japan – 103; Great Britain – 101; USA – 110; Italy – 63.

Three countries ranked lower than Russia: China – 32; Brazil – 19; India – 9.

The third indicator: «Research and development costs by country (mln $ USD; calculated according to the purchasing power parity of national currencies)». In 2022, 13 countries according to this indicator were ranked as follows (in descending order): USA – 806.0; China – 667.6; Japan – 177.4; Germany – 153.7; South Korea – 119.6; Great Britain – 97.8; France – 77.2; India – 59.1; Taiwan – 55.6; Russia – 49.9; Italy – 40.1; Brazil – 35.9; Canada – 35.3.

Although Russia is considered the fifth economy in the world by the end of 2023 (in terms of GDP calculated according to the purchasing power parity of currencies), it ranks 10th in terms of R&D costs. Its R&D costs were less than that of small Taiwan (it ranks 21st in the world in terms of real GDP, i.e. calculated by PPP).

Although Russia and Germany are on the same level in terms of real GDP, German R&D costs in 2022 was more than three times higher than that of the Russian Federation. China's R&D costs are 13.4 times higher than Russia's; U.S. costs is more than 16 times higher.

The fourth indicator is «Research and development costs as a percentage of GDP by country». There are rating for 13 countries in 2022, data for 2000 are shown in parentheses for comparison: South Korea – 4.93 (2.13); Taiwan – 3.77 (1.91); USA – 3.46 (2.62); Japan – 3.30 (2.86); Germany – 3.13 (2.41); Great Britain – 2.91 (1.61); China – 2.43 (0.89); France – 2.22 (2.09); Canada – 1.55 (1.86); Italy – 1.45 (1.00); Brazil – 1.17 (1.05);

ensure «the presence of the Russian Federation among world five leading countries engaged in research and development in areas determined by the priorities of scientific and technological development»

Russia – 0.94 (1.05); India – 0.66 (0.76).

Therefore, Russia was in the penultimate place in the list of thirteen in terms of the relative level of science costs. In addition, it was one of the three countries with decreasing of this indicator over the period 2000-2022.

In Russia – 1.05-0.94%; in Canada – 1.96-1.55%; in India – 0.76-0.66%.

But some countries in the period 2000-2022 showed a sharp breakthrough. In China, the indicator increased from 0.89 to 2.43%, i.e. 2.7 times; in South Korea – it is 2.3 times; in Taiwan – it is almost 2 times; in the UK – by 1.8 times. These figures indicate Russia's progressive lagging behind most other G-13 countries.

The indicators of innovative activity of organisations by country are interesting, too. However, Russia is considered in the context of another list. It also consists of 13 countries, but all countries (except Russia) are EU members. One of the indicators is «The share of innovation costs in the total volume of goods shipped, works performed, services (%)». Here is the ranking of countries: Sweden – 3.5; Germany – 3.5; Belgium – 2.8; Denmark – 2.5; Finland – 2.5; 6 France – 2.4; Austria – 2.3; Russia – 2.1; Norway – 1.9; Italy – 1.6; Spain – 1.4; Poland – 1.2; Romania – 0.5.

The indicator of innovation activity is «The share of innovative goods, works, and services in the total volume of goods shipped, works performed, and services (%)». The ranking of countries is as follows: Spain – 21.7; Finland – 19.3; Belgium – 15.1; Denmark – 15.0; Germany – 14.0; Italy – 13.8; Austria – 13.0; Sweden – 12.7; Poland – 7.5; France – 6.2; Norway – 6.0; Romania – 5.2; Russia – 5.1.

The indicator «The number of patent applications for inventions by countries». Here are the data for 2021. Moreover, the country's place is determined not in the context of the «G 13», but in the context of all world countries. In total, 25,472 patent applications were filed in Russia in 2021. They include 19,569 to the national patent office, and 5,903 to foreign offices. According to the total number of applications in 2021, Russia ranked world 14th.

China was leader (the number of applications was 1,538.60 thousand). It was followed by the USA (509.96 thousand), Japan (412.88 thousand), South Korea (267.53 thousand), Germany (165.83 thousand). Hence, Russia lags far behind many countries in terms of applications for inventions. The gap from China was more than 60 times, from the United States – 20 times.

Therefore, it is considered the progressive lag behind the world leaders. Although the latest data in the collection is mainly for 2022, it can be confidently stated that the goal of the National Science Project (to be ranked 5th in the list of world science leaders in 2024) has not been achieved.

Today, Russian science ranks world 27th. There is the degradation of science, if compared with its position in the world ranking 30 years ago and with the share of GDP for human development. Today, 75% of the population is living under the poverty line.

Therefore, the situation with scientific personnel in Russia is becoming more complicated. For instance, officials provide controversial information: the number of scientists is or decreasing, or growing, etc. There is no general opinion on results of Russia isolation in terms of SMO and international agenda.

At the end of 2023, Deputy Prime Minister D. Chernyshenko reported on stopping the trend of reducing scientific personnel, increasing the share of young scientists for the first time in the history of modern Russia. At the same time, the number of post graduate students has grown to 110 thousand; two thousand will receive a scholarship in the amount of 75 thousand RUB, established by presidential decree. The state actively supports young scientists: for example, the Russian Science Foundation has allocated funds to 708 organizations, and 86% of laboratories focus on new areas in science. Especially for young scientists the grants will increase to half a billion RUB.

At about the same time, the recent secretary of the Security Council of the Russian Federation, N. Patrushev noted on the following: «A serious obstacle to achieving technological independence is the shortage of qualified scientific, engineering and working personnel. The total number of personnel engaged in research and development in Russia has decreased by a quarter over the past 20 years.»

By the end of 2022, a study by the Institute for Statistical Research and the Economics of Knowledge, HSE has recorded an increase in all categories of scientific personnel. The total number of scientific staff in the

Russian Federation increased for the first time in a year to almost 670 thousand people – by 1.1%. However, the actual number of researchers increased by only 0.2%, and the largest increase was among laboratory assistants and other support staff. Compared to 2010, there were 67 thousand fewer scientific staff. The most curious situation was with young scientists; their number was steadily decreasing, suddenly increasing two years earlier. Indeed, the counting system has changed: previously, an employee up to 42 years old was considered «young», and today – up to 45 years.

Russia has remained in the top five world leaders in terms of the equivalent of full-time employment in science – this is a certain amount of time actually spent by staff on research and development. It has 737 thousand man-years in a year, and China, for comparison, 5.7 million man-years. We can consider notable scandal with young scientists from Novosibirsk in 2021, declared the Year of Science and Technology in Russia.

The winners of the presidential prize A. Proskurina, E. Potter, and E. Dolgova were invited to a meeting of the Council for Science and Education with the participation of the President V.V. Putin. He asked young scientists about their salary, and A. Proskurina, a senior researcher at the Institute of Cytology and Genetics SB RAS, answered her salary was slightly higher than the subsistence minimum – 25 thousand RUB. Although her position is quite high, by the age of 35 she has been at the institute for 16 years.

Salaries in science, as instructed by the president, amount to more than 200% of the average in the region. And the average for the Novosibirsk region was 39 thousand RUB. The president remarked her salary should be almost 78 thousand RUB.

Indeed, the salaries of scientists are increased, but employees became part-time workers, with the same duties as full-time ones.

The thousands of Proskurina's colleagues began to confirm her words with articles, posts, interviews: according to them, 40 thousand RUBs young scientist can have only participating in the grant programmes. By N. Savelyeva, a programmer at the Space Research Institute of the Russian Academy of Sciences (Moscow), her salary was slightly more than the minimum wage – 13.7 thousand RUB. But when she became a part-time worker, she had to get 6,888 RUB without any additional grants. However, Olga, a laboratory assistant at the Institute of Higher Nervous Activity and Neurophysiology, assured that she works at 0.1% and receives «less than 1,500 RUB per month». Nevertheless, according to official reports, the salaries of scientists are much higher than the average for the region; in Moscow in 2020 amounted to 88.9 thousand RUB.

Indeed, for any bureaucratic system it is easier to actually address a problem than to create a myth. There appeared an idea to establish several funds to provide financial support to the scientific activity. It allows ones to reduce bureaucracy level.

It also allows ones to reduce governmental cost control, simplify the terms of funding, and results control, etc. This model is implemented all over the world and pays attention on the research results – further funding is provided only in case of positive scientific forecast.

Otherwise, the economic situation became negative one. By 2023, total costs by the state program «Scientific and Technological Development of the Russian Federation» amounted to 1.2 trln RUB, of which 559 billion will be spend on R&D. But in 2020, the same 1.2 trln RUB were spent on science from the budget. However, the inflation level increased significantly. Moreover, the most equipment and materials have to be bought indirectly and by the higher prices. Therefore, science will receive less than 1% of GDP from the state, while advanced countries spend 5%.

It causes increasing of budget cost control.

In 2021, the functions of the Russian Foundation for Basic Research (RFBR) were transferred to the Russian Science Foundation (RNF). It causes the reduction of funding, changing of the grant appliance system, etc.

The RFBR was created on the model of the American National Science Foundation: any group of scientists no more than 10 people can apply and receive a grant. Applications were assessed by experts; approvals from various ministries and departments were not required.

According to many famous Russian scientists, RFBR grants allowed fundamental science to survive in

the 1990s. Indeed, when the financial situation in the country was improved, Skolkovo, the Russian Science Foundation, and other government tools to support science appeared. The Russian Science Foundation specialised in supporting prominent scientists: individual grants of 5 mln RUB per person, 30 mln RUB per laboratory. Otherwise, RFBR supported young scientists allow them to be prominent in the future due the governmental support. Then bureaucrats from science decided to reduce their funding, and concentrated on prominent scientists only.

However, in 2022, national security began to directly depend on science. The country needed thousands of drones, and the most sophisticated military equipment needed domestic components. It is necessary to upgrade existing weapons systems rapidly and create new ones in extra short period of time. Therefore, funding of young scientist research is essential not only during the war-tame but during the peace, too.

Part 2. Free will and fate as a category of economic science

Section 2.1. Fate

Russian culture and nation have a lot of enemies. They try to dehumanise us, erase our Russian cultural code, provide tolerant globalisation, destroy the family values, etc.

We must to create a new Reality, the civilization of the Future. Because Russians have no prospects in this modern worldwide coordinate system. Russians have their own destiny unlike those of Americans and Europeans. The history of old Russia is over and there is a need to create a new one. Otherwise, Russians will vanish as a nation.

It is possible to create a new reality in Russia. According to K. Paustovsky, «there is nothing more disgusting than a person's indifference to his country». Person got this feature, when his or her conscience and sincerity disappeared. The meaning of human life disappears. To prevent this, we need to construct new reality, new economic efficiency, and social justice with personal freedom (J.M. Keynes).

The development of economic theory includes in its object the reality itself, the way of «existence», in philosophical terms, as a personal and essential being of economic phenomena and processes. Reality concerns each single person and society as a whole.

Section 2.2. The methodology of economic knowledge as a rule

Reality and reality correlate as otherness and the world, as the worldview of artificial time and constructed space.

Ontologically, reality is dynamic conservatism, and reality is non-future. Methodologically, the word «anastasia» (from Greek «resurrection»); resurrection for understanding reality as reality means the transformation of life, transfiguration, and the acquisition of new properties of life. Additionally, economic relations are deformed and change their characteristics at all levels of the common economic space. We previously consider the issue of the common economic space.

Therefore, data on physical economy (economophysics) in modern economic theory could be considered in terms of the future reality.

Hence, the inevitability of Russian economy transformation based on a new economic theory, has already been described in a number of publications [4].

Also we consider the declared reality.

At the fifth International Moscow Academic Economic Forum (IIEF-2023), the topic of discussion was the problem of «Russia's role in the new economic reality» from the perspective of global economic development trends. The main attention was drawn to «education as the foundation of the future». For instance, the Vice-President of the Higher School of Economics, I. Agarzimyan considers new economic realities, too.

Indeed, the Russian Academy of Sciences is integrated into the process of making state strategic decisions (see Table 1).

Knowing reality allows ones to create a world. Understanding reality in economics destroys the concept of «homo economicus».

The imaginary reality is something that has not happened in the economy yet.

Table 1 – Strategic decisions making

Strategy of scientific and technological development	Information technology
Objectives of the updated Technological Development Strategy: • independence in preserving the healthcare and food security; • technological sovereignty in the production of machines and machine tools, robotics, types of transport, unmanned aircraft, marine, and other systems, data economics, new materials, and chemistry; • We believe, a long-term order for high-tech products will be formed until 2030. It allows ones to create globally competitive products based on unique domestic developments, including space, nuclear and new energy technologies. Otherwise, companies-producers could follow the governmental order. The total investments of the state and business in R&D should be more than doubled; they should amount to 2% of GDP by 2030.	By 2030, it is necessary to form digital platforms in all key sectors of the economy and the social sphere. These and other complex tasks will be addressed within the framework of the new national project «Data Economy». At least 700 bn RUB will be allocated for its implementation in the next six years. One of the goals is to increase the revenue of the top 100 Russian IT companies by 2.5 times, to 5.3 trln RUB; the country's GDP growth should amount to 11.2 trln RUB due to artificial intelligence technologies.

Source: Volnaya Economika [Free Economy]. January-March, 2024. p. 26.

There is an issue of declared reality and reality factual.

Therefore, we note the existence of a time plan for IT singularity (see Fig.1).

2023-2025
Reaching the quantum dimensional limit of traditional silicon chips. The boom in multiprocessor devices and special software to control them. 5G/6G networks. The drone boom.
2025-2027
AI as a standard element of production and transport systems. AI-driven warfare. Demonstration of quantum superiority in practice.
2027-2030
The transfer of managerial functions to AI. Meta-universes as a basis for "indirect propaganda" of the centres of power". Photonic computers.
2060-2035
Spreading a simple neurointerface. Quantum computers. "Integrated Reality" without the option to verify the "true" one. "Internet of Everything".
2034-2040
Advanced AI, undifferentiated from humans' in communication. Advanced UM systems controlling AI systems. AI for specific tasks. A rejection of the protraceability of AI.
2040-2043
A complex neurointerface. The proliferation of psychochemistry that simplifies human adaptation to functioning in the digital world. "Grey markets" of neuroprosthetics.

Figure 1. Timeline for IT singularity

Source: Volnaya Economika [Free Economy]. January-March, 2024. p. 43.

Basic concepts of reality

Properties of reality as an economic category:

– collective hallucinations;

– the disappearing truth verification;
– imagination becomes stronger than knowledge;
– growing distrust of information;
– the problem of assessment guidelines;
– reality the emergence of Homo cofucus;
– the emergence of a hybrid world of material and virtual digital reality;
– the development of synergetics as a theory of complex systems.

However, the condition for the perception of reality in economics is primarily a non-consciousness. The same is required for the long-term perception of turbulent reality.

Methodologically, we agree with A.A. Ukhtomsky – there is no subject without an object, and vise versa.

In addition, it becomes possible to analyse the process of education as a spiritual work within the framework of an approach to economic time as a spiritual work. And since today we do not know what consciousness is, the reality of economic knowledge is the creation of an economic theory of education, in which the products of educational production become not only education, upbringing, faith in the future, but also consciousness as an image of education. The methodology of economics is complemented by the principle of mentology to characterise the level of consciousness.

– The inflation problem continues to escalate in Russia, indicating persistent fundamental problems in the economy and promising a new cycle of monetary policy hardening. It will have a negative impact on economic growth and investment. The situation is complicated by starting the tax reform, depriving businesses of investment resources.

– The global economy is facing geopolitical challenges. It entails a situational increase in oil prices, which, however, promises to preserve Russia's oil and gas revenues.

– Western countries are working on new sanctions measures designed to reduce Russia's revenues from energy exports and expand the number of sanctioned businessmen.

Therefore, the Russian fate becomes an economic category. Moreover, fate is a certain social capital, the position of changing oneself and the world, including a common economic space. Yes, it is definitely biased, but this is our kind of «the truth».

Indeed, only the formulation of methodological principles and methods of analysis allows scientist to show his or her fate to everyone. Therefore, the future of fate concerns with understanding the existence of certain restrictions on the choice of principles and methods. However, motives often used in such cases for obtaining tactical successes, which are possible at moments of favourable scientific conditions, are not suitable for us due to the understanding that, ultimately, the real results will not coincide with the declared ones.

Section 2.3. Fate

Fate as social capital is a kind of economic resource; it is a kind of the national value. Fate is the source (one of) the formation of a new reality. One of its characteristics is the perception of a person not as homo-economicus, but as a non-economic, collective, but still individualized personality, regardless of nationality. The noonomic image of a person is an image of a future reality. For such an image to become reality a lot of changes are required and the beginning lies in a change in the educational sphereю It causes the gaps in the blind spots of the educational space [13]. It is necessary to consider digital transformation in terms of human values. The necessary kind of V-transition (according to O. Bakhtiyarov) is transition in terms of fate.

The V-transition will make it possible to replenish the resources that were previously drawn from the demographic compression of Russia, when there were many people – up to the Great Patriotic War. A huge number of people disappeared during the pre-Soviet and Soviet regimes. And we have a demographic funnel – there will be a shortage of people. In order to have enough of them, we need specific people who are able to change themselves, their condition. Therefore, part of the conservative revolution, the conservative revolutionary ideology, is precisely a personal revolution. Education and cultural systems must be changed. A person should be aware inside, act as a conscious person, not as a part of a system only.

Therefore, fate as an economic category forces us to consider in more detail the problem of the methodological foundations of our analysis.

Section 2.3.1

The methodology used in the analysis of reality as an economic phenomenon or as a state of the common economic space it is comprehension the state as the goal of a universal, general goal of economic activity.

Obviously, the very term of reality for economic analysis requires filling its specifics with content. However, there is a philosophical aspect of the issue. There is a sufficient variation in the context of the use of the term «reality» in the literature.

Many researchers use the following terms:

O.B. Lemeshonok – «geo-economic reality» (report on SPEC-2022).

Y.M. Osipov – «the unfolding reality».

A.V. Buzgalin is a «new reality».

A.I. Agarzimyan, considering the new economic realities of the era of the fourth Industrial Revolution, in the article «Unemployed or carefree» reflects on tomorrow's reality. He notes «the era of the fourth industrial Revolution is a time of mass introduction of automated systems. Civilization has always strived for technological and economic development, the search for new knowledge and solutions to facilitate human labour. When quantitative changes turned into qualitative ones, a fundamental turning point occurred. It was later called the industrial revolutions. Our generation passed through a «perfect storm», a period of completion of several development cycles of different lengths at once. Nowadays, the emergence of a global robotic environment is taking place. It will be able to replace human labour with automatic one. Perhaps this will be the biggest change in the history of mankind».

We agree with his assessment of the future reality.

The strategy of retraining personnel in previous industrial revolutions has not shown high efficiency. However, now the level of education has become higher, the information and communication environment is functioning. In the new reality, low-skilled physical labour will remain in demand: progress here is not yet economically justified. The demand for highly qualified specialists will also be stable – it is technologically impossible to replace them. Indeed, the modern middle class as the most vulnerable; in the expert community in recent years, the term «washing out the middle class» appeared.

A significant part of professions previously considered intellectual ones transferred into the field of working according to templates, instructions, and regulations. In the middle of the 20th century, an educated and capable engineer was part of the professional elite. At the beginning of the XXI century, his work can easily be repeated by an AutoCAD user. Nowadays, technological units and structures are already calculated automatically, while the result is often much better and more efficient. As for high-level and complex engineering skills, only a few hundred people in the world are skilled enough. They are creating modules used by millions of ordinary engineers. Indeed, this situation is typical for most industries. Professions do not disappear – they are transforming, changing themselves. It also is changing the role of education.

There is a real need to methodologically strengthen the systemic principle of spatiality.

Discussion

A fundamental change is possible only in case of a new policy in the field of education developing. In particular, the teaching of all applied economic disciplines (there are more than 30 of them) should have a base in the form of a general economic theory. Those should be interpreted as a fundamental ideological discipline with the appropriate content.

On the one hand, the concept of economics is a kind of bestiary: many concepts are absent (price, economic growth, GDP), others are more demanded (efficiency, optimization, intellectual property, labour productivity). A special scientific operation is needed to complain the conceptual apparatus with reality to except its destructiveness.

Obviously, updating the methodology of economic analysis is very controversial. It could have an

imitative and formal character, especially at first, when the positions of the participants in the discussion may differ diametrically. But it is quite relevant and necessary.

Conclusions

1. Reflections on reality in economic theory are caused by changes in the nature of economic relations in society, where information as a factor of production begins to prevail over all other factors. Consequently, there is a change in the productive forces of society and the formation of nanoeconomics, which requires special theoretical research based on new methodological foundations. According to D. Bell, fundamentally new role of theoretical knowledge in a special form becomes a factor determining the direction of social development.

2. Education is the source of a new era. The education financing is the history of future reality. However, the Russian Federation ranks world 98th in terms of education financing. And the history of civilization is a change of economies: agricultural, industrial, service, information, etc. Ignoring science will cause a failure to enter a new stage (form) of economy – the educational economy (the economy of people as carriers of natural intelligence), in which human capital will become a reality concentrator.

Concentration is interpreted as the living energy of a person. The lack of an educational economy is a kind of gap for human world globalisation. The search for the right approaches to understanding reality in economics allows us to make the following statements.

– Moreover, this reality includes the development of Karl Marx's ideas on the economic relations of Man with Nature. Noonomics could be the foundation for the development of these ideas in terms of the society without capitalism within the framework of a post-Christian civilization.

– Understanding reality in economics is inextricably linked with understanding the meaning of the concept of reality.

3. Examining reality in economic science involves highlighting its characteristics such as the dependence of economic success on the cultural environment of economic relations, changing dynamically. Perhaps, reality in its manifestations as the value of self-survival and self-development of individuals, as well as the reduction of distance to power on the basis of the sacralisation of fear as a secular-institutional value. The above-stated provisions are confirmed by the propaganda of Nazism in the West. The Nazi ideology in its Europeanized form was developed and disseminated by the Centre for Information and Psychological Operations (CIPsO). It is operated by the 77th Special Information Operations Brigade from London. About fifty PR agencies and hundreds of high-level specialists who know the Russian language and culture well work for this team. The Centre has large financial resources.

CIPsO is part of the army structure of the Social Operations Forces of Ukraine (SSOU) and initially controlled the information agenda only on the territory of the country, then undertook to form it outside Ukraine. The training of the Centre's staff in propaganda was conducted according to American methodological manuals. They were focused on manipulating feelings and fear, creating reality with the help of television, disabling historical memory, spreading an atmosphere of immorality.

As a result, there is a collective depression, the bias of some towards others and reality as a habit with other things being equal. The feeling of reality in this case begins to depend on the mentality. The reality of the worldview becomes a hallucination, the principle prevails: everyone has their own truth, that is, their own reality; there is an inflation of feelings, an emotional beating of the brain. As a result, there is a cognitive impairment of the brain. This reality becomes easy to manipulate to. The reliability of the information is questionable. Individuals' trust in authority is decreasing.

Therefore, we can formulate the purpose of the conclusion as an adaptation to a new reality, emphasize its novelty, and thereby take part in the creation of a new economic science. However, human capital should be considered as a criterion for educational production effectiveness. It should define reputational pedagogical technologies costs and reputational capital. Moreover, the long–term reality changes the relationship of economic theory and practice to work and the pyramid foundation to education.

4. The socio-economic trajectory of Russia's development is characterised by the categorical imperative

of being in time and space. This fact has already been discussed at scientific conferences (for example, at Tver State University, SPEC-2023, SPEC-2024, V MAEF), and in scientific literature [2]. The economy of the mid-21st century will be different from those of the first quarter of the 21st century. Development based on the principles of noonomics is a model allowing society to be made more equitable. Moreover, our country is being able to withstand the new reality. Reality in economic theory can arise through considering the future of will, future of fate, and understanding theoretical economics as the pure economics of a topology object or a number polygon. This is an economic necessity today.

5. By economic necessity, we consider specific economic and social conditions (including forms of goods and services production, state policy, institutions and ideological motivation of all participants in social production).

6. The reflection on noonomics metaphysics as a continuation of transfinite sets theory. The death of the dream of justice causes a crisis in the value system and elites moral degradation. The loss of the coordinate system causes the loss of the country's development and balance between human development and the accumulation of personal capital by the elites. This is stated by the most honest scientists [6].

7. In this context, noonomics can be considered as a development model with a tunnel effect, being the result of the functioning of social labour (according to K. Marx – the «universal productive force».

8. The density of economic relations in the modern world is increasing, but the role of nanoeconomic relations is weakening.

9. The economic systems become the subject of analysis in economics instead of economic relations because economic systems are easy to explore. They do not have subjects of economic relations (people), only agents – mechanical elements of transmission of transformation mechanisms (processing), but there is no goal. There are elemental acts of technical (or physic-chemical transformations of one state of the process factor into another). Therefore, system analysis studies the state of system economy, the kinetics of processes occurring in economic systems and the mechanisms of these processes. Understanding the kinetics of processes and economic phenomena provides actual control the production process of an economic product (material). However, non-physical products as products of elementary economic relations, such as the transformation of human energy into a creative process remain a complicated issue.

Perhaps, it is the reason the concept of «industrial relations» was replaced from political economy by the concept of «economic relations» and structured by L.I. Abalkin on economic, organizational, technical, economic, and socio-economic ones. Perhaps, it is the reason of difficulties in determining the content of human capital, social capital, etc.

10. However, the subject of political and economic relations in economic time and economic space, economics cannot exist with opposing «inclusive capitalism». The common economic space is not only a global system of economic interdependencies. It encompasses all national economies, includes international division of labour and various forms of interaction at the level of productive forces, industrial relations, and the political and legal superstructures.

The concept of geopolitics includes the understanding of the world as a whole outside of its differentiation into countries, states, etc. Economic production distinguishes nanoeconomics, noloeconomics, mesoeconomics, microeconomics, macroeconomics, subeconomics and, finally, megaeconomics.

According to G. Kleiner, «economic conflicts between labour, capital, knowledge, investments, etc. on occur at the micro level, at the enterprise level. Nowadays, the life of a huge number of enterprises is under threat. They are now practically transforming their processing and other procedures. It is a large risk for them. In addition, the shortage of personnel also makes the situation at enterprises more complicated. There are some unqualified replacements in terms of people, components, and technologies».

11. The economy of the mid-21st century will be different from those of the first quarter of the 21st century. The development based on the principles of noonomics is a model that allows society to be made more just, and our country to be able to withstand geopolitical confrontation in an era of drastic changes.

According to the law of the reverse perspective of parallel reality, the events of modern times immediately happen in reality, will not be realized.

We believe, a long-term order for high-tech products will be formed until 2030. It allows ones to create globally competitive products based on unique domestic developments, including space, nuclear and new energy technologies. Otherwise, companies-producers could follow the governmental order.

The total investments of the state and business in R&D should be more than doubled; they should amount to 2% of GDP by 2030.

By 2030, it is necessary to form digital platforms in all key sectors of the economy and the social sphere. These complex tasks, such as self-knowledge, are relevant to self-knowledge by every person. At the same time, noonomics as a concept does not justify any obvious solutions to current financial and budgetary problems. It characterizes its long-term validity as a theoretical trend in the development of economics. Therefore, the concept of Noonomics by S.D. Bodrunov is associated with the search for a new strategy for the development of society.

In the absence of a holistic and relevant economic science, technological achievements cannot become innovations: the decisions made are subjective; they reflect the level of personal and administrative preferences, rather than a balanced assessment of the achieved systemic economic effect. Economic solutions in the conditions of rapid development, expansion and complication of the super disciplinary knowledge space, convergence of technologies require a special system of systematic research, the main seven groups of which include repeated, continuous, network, translational, and transformational research, complemented by future complex research.

The development of a new model requires the formation a new economic science competitive in conditions of rapid scientific and technical development of complex systems.

Nowadays, the economy is a mechanism for the self-destruction of mankind. The reality of economic theory arises through its diffusion into physical economics and the methodology of quantum physics.

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AUTHORS' CONTRIBUTION

Vasiliy V. Chekmarev – conceptualization, project administration, writing – original draft.
Aleksei S. Bakhmetov – formal analysis; writing – review & editing.

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