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## **Anatomy of the “Economic Miracle”**

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**Abstract:**

*The authors analyze evolutionary-institutional patterns and factors of economic growth and development on the example of a number of countries which have demonstrated the “economic miracle”. Their research method is a structure of socio-economic genotype which aims at maximizing the economic system outcomes. It is concluded that the “economic miracle” appears when the economic policy and development strategy of a country coincide with the succession (logic) of a cyclic structure of genotype as a driving force of economic evolution.*

**Key Words:** *Economic Evolution and Institutions, Socio-Economic Genotype, Economic Cycles, Economic Miracle*

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## 1. Introduction

The quest for new sources of economic growth and development and actualization of these problems in the world economy, in Russia and its regions, involve the analysis of past experience and the search for new ways of resolving the given issues. Economic growth contributes to self-development of economics and further progress; it helps solving many problems in financial and social spheres, increasing the rate of income and employment, improving living standards, etc.

The examples of significant economic growth and development at different stages of the world economic system evolution can be found in many countries and regions. Thus, in the late 19<sup>th</sup> - early 20<sup>th</sup> century, Russia (with a few interruptions) demonstrated high rate of economic growth. Annually, in Russia (from 1883-1887 to 1909-1913) the GDP grew by 3.25%, in the UK (from 1855-1864 to 1920-1924) by 2.1%, in Germany (from 1850-1859 to 1910-1913) by 2.6%, in France (from 1860-1870 to 1900-1910) by 1.5%. In terms of economic growth per capita, in 1890s, Russia was at the level of the USA, Japan, and Sweden – the countries with the highest rate of economic growth. In 1905-1914, the rate of growth in production and construction areas in Russia exceeded 10% per year. In 1909-1914, the rate of industrial growth was 8.8% per year<sup>2</sup>. Russia exported agricultural products to one-third of the world's population<sup>3</sup>.

In 1950-1960, the GDP of Germany grew by more than 2 times, and by the mid-60s it tripled. Over this period the average annual rate of GDP was 8.6%, the index of industrial production for the period of 1950-1960 reached 249%. The rate of unemployment was less than 1%. In 1957-1973, the GDP of Japan grew by 6.5 times and the capacity of industrial production increased by almost 10 times<sup>4</sup>. Later, the phenomenon of the "economic miracle" could be observed in the Republic of Korea, Taiwan, Singapore, Hong Kong, etc.; and then – in the region of South-East Asia and China.

According to some economists, the success of the "economic miracle" countries is difficult to explain by the existing theories. "We may be standing on the threshold of new ideas in economics of development... It appears now that a new concept of the stages of development is being created; it will allow... to work out some practical recommendations on the technology of "economic miracles"<sup>5</sup>. Growth and development are connected with socio-economic changes of the system, which

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<sup>2</sup> Gregory, 2003. P. 20, 21, 24, 25, 61.

<sup>3</sup> Pervishin, 2006. P. 104.

<sup>4</sup> Chepurensko A. (red.) 2001. P. 112-114; Druzhinin, 2003. P. 122; Berg, 2001. Ch. 4, 8.

<sup>5</sup> Sundaram, 2012. P. 102.

points to the importance of using the tools of *evolutionary methodology*. For the “economic miracle” to appear, it is crucial that the practice of economic policy of a country or a region coincides with internal institutional structures of economic evolution mechanisms.

## **2. Instrumentarium of Evolutionary-Institutional Approach in Research and the Structure of Socio-Economic Genotype**

*Economic evolution* is first and foremost understood as a non-convertible process, communication (interaction of economic actors and spheres), and the formation of something new; this is institutional restructuring of the economic system organization and management under the influence of *socio-economic genotype* institutions, and the changes of genotype under the influence of economic system evolution. In socio-economic literature, the concept of genotype is mainly used as a metaphor; it has seldom been the subject of a special study, and its content is ambiguous. It should be noted that the problems of economic genetics have not been thoroughly investigated in economic literature, its terminology and semantic framework; even its basic concepts have not been worked out. In G.B. Kleiner’s summarizing paper on evolutionary economics (2014, p. 132-133), the identification of economic genes and their carriers (including genotype) is pointed out as one of fundamental problems of economics.

The application of evolutionary-institutional epistemology necessitates singling out *a unit of socio-economic evolution* within the framework of which the evolution takes place; such a unit, the paper found, is the global economic system, i.e. the inner totality, the unity, and the generic specificities of the world economies; all this is manifested in a certain type of organization and management at various stages and levels of social development. This unit of economic evolution includes socio-economic genotype. *Socio-economic genotype* is a system of economic genes, some “ideal” (standard) institutional totality, a general model of the global economic system and its evolution; this system includes past experience and the system social memory. Economic genes carry the genotype information; they determine the development of certain characteristics and properties of the economic system and control the formation of its outcomes.

Socio-economic genotype comprises *two types of interrelated institutional structures*. *The first type* is a “deeper” level of “time-irrelevant” *institutional concepts*, a semantic content of the economic activity. These concepts are archetypes or a priori universals; they lay down the patterns and norms of behavior and development for all economic entities. They contain economic genes and in a certain way they structure these genes. *The second level* is a *genotype matrix of long-term economic processes and their categories*. This matrix creates social wealth and forms economic outcomes of any society.

The first identified type of genotype concepts structure, in its turn, comprises three levels, where the first level is the **reproduction** relations of *production and consumption*, principle complementary spheres, the relationship between subject and object, the interaction of economic needs, goals, resources, outcomes and other economic genes, common for all the stages and levels of economic evolution. Thereby, *individual reproduction of subjects*, as well as reproduction of institutions of the current economics concept is carried out. These institutions constitute significant, stable, and inheritable structures of genotype elements (genes) interaction (coupling).

In addition to production and consumption, economic activity contains another level, *exchange and distribution*, the relations of economic subjects, their institutional **equilibrium** on the basis of social needs, goals, and values in the structure of social division of labor, social division of production factors (their distribution among economic entities), and mechanisms designated to coordinate the activity of economic subjects, etc.

*The third level of economic genotype is formed as a superposition (overlapping) of two previous levels of reproduction and equilibrium institutional concepts. Thereby, the relations of organization and management of interacting economic actors and social structures are formed, which results in their harmonization and, ultimately, in the optimal interaction of individual and social spheres. Through the genotype optimization concept, the economic system gains its sense and stability, reaches its optimum under external and internal parameters changes, minimizes the costs, maximizes economic outcomes, etc.*

Economic subjects (enterprises and households) and public economic center (market and state) organize, control, and optimize economic activity, thereby adapting the structure of individual production to the structure of public social needs and consumption on the basis of the identified institutional concepts. Organization, control, and optimization of economic activity of these spheres and entities are carried out within the framework of three *institutional sublevels-modes* of genotype as an emergent system, the structural levels of which are qualitatively distinct, interdependent and cannot be reduced to one another. The mode of individual reproduction presupposes *the dominance of public sphere over individual one and the conservative relationship* under which society becomes the preconditioned environment for individual reproduction of specialized economic subjects. The theoretic aspects of subordinating individual subjects to public institutions were studied by the representatives of "old" *institutionalism* (Veblen, John. Commons, W. Mitchell).

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The conservative, or reproduction, sublevel-mode is replaced by the regime of liberal equilibrium sublevel-mode which is characterized by *the primacy of individual entities activity over public institutions activity*, when the relations of actors become the dominant factor of socio-economic organization. The widely used research principle of *new institutional* theory is the principle of methodological individualism. “Liberalism is an individualistic system; it grants supremacy to humans and to their rights. Human personality comes first, and the worth of social groups and institutions is measured solely by the extent to which they protect the rights and interests of the individual and contribute to the objectives of individual subjects.”<sup>6</sup>

The third optimization mode incorporates the two aforementioned ones; their unity presupposes their discreteness and hierarchy and the relations of conservatism and liberalism. By its nature, the optimization mode “subjugates” to the theory of *modern “old” and “new” institutionalism* with their methodological principles of “realism” and nominalism of the emergent system. Thereby, the general architectonics of genotype structure, e.g., civil society, is outlined.

The second type of genotype concept structure is manifested in a genotype matrix, the categories of the economic system theory (see: Annex). In the course of its self-development, the economic system synthesizes the outcomes of the society economic activity. Hence, the subject of economics study is not only the behavior of economic entities in the conditions of scarce resources; the content of economics study, its aims and meanings is production of social wealth. In the matrix, economic categories are presented in *three paradigms: value-, benefit- and optional value paradigms* as the original forms of social wealth production. Value paradigm is based on the concept of reproduction; theories of value, with all their diversity, can “merge into one theory, built on the reproduction approach”<sup>7</sup>. Benefit paradigm is based on the equilibrium model of individual and social activity outcomes; optional value paradigm is based on the optimization concept which involves maximum benefit that can be obtained at a given choice cost. This article is focused on some general characteristics of the matrix system; for a more detailed description of the genotype matrix, see (Martishin, 2011).

The following consistent patterns (regularities) can be revealed in the formation and functioning of the economic system genotype matrix.

1. In compliance with the rules of economic paradigms, there exist “*horizontal*” relationships and interactions of economic processes and their categories formation, i.e. economic categories and forms of public wealth are created “horizontally”.

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<sup>6</sup> Leontovich, 1995. P. 3, 6.

<sup>7</sup> Bodrikov, 2009. P. 102.

“Horizontal” relationship of economic categories characterizes the development of public wealth forms and their system unity. At the same time, institutional concepts of a deeper genotype level and their features are included in categories of the matrix level, for example, in the form of specific characteristics of market institutions, state institutions (taxes, subsidies), *et al.*, thus affecting the content of economic processes.

2. Certain *periodicity* in the formation of economic values can be observed. It bases on coded meanings of concepts and their alteration by means of paradigms and matrix levels. In each paradigm, every third group of economic concepts includes the two preceding ones (for example, 1.3.1.3 includes 1.1.1.1 and 1.2.1.2, 1.6.1.6 includes 1.4.1.4. and 1.5.1.5, etc.) and each subsequent paradigm level includes the categories of preceding paradigms.

3. There exist “vertical” relationship and interactions of economic processes and their categories development on the basis of gradual and cumulative effect, whereby economic values move along these levels; i.e., economic categories allow to collect, store and transmit values and information (including institutional information) and to form “vertically”. Thus, the levels of the genotype matrix constitute the chain of creating the elements of income and its concepts.

The first matrix level represents the categories of qualitative and quantitative characteristics of social wealth and their measure in the form of money. Money is the final point of the first matrix level and the starting point of its second level. Within the framework of the identified paradigms, the transformation of money into capital and its outcomes, the technological base, the consumption and accumulation processes constitute the content of this level. The nature of capital manifests in the form of its circulation. Matrix information is connected with the stages of sequential movement of economic values and the related concepts, with their specificity and attachment to the common circuit up to the level of the final results of the economic system, which is the fourth matrix level.

For example, optimum interim consumption of the third level (3.9.1.9) bases on the unity of optimum consumer choice (1.9.1.9) and optimum of production choice (2.9.1.9), and optimum production factors markets (4.9.1.9) (the fourth level ) base on the unity of optimum production choice (2.9.1.9) and optimum interim consumption (3.9.1.9). Thus, economic processes are represented both *in integration and in development*. In the terminology of Majevskii V.I. (1997, p. 32), the levels of the genotype matrix development can be called "macrogenerations" of the matrix system. These matrix levels evolve cyclically. Thereby, the stages of historic development and the types of **genotype cycles** as driving forces and factors of economic development can be identified. As we have already mentioned, the

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“economic miracle” or the considerable growth and development of a country or a region comes about when *the economic policy and the strategy of economic development coincide, at least in the main points, with the described genotype mechanisms and with the development cycles, main trends, and driving forces of economic evolution.*

### 3. How the Genotype Matrix is Realized in the Directional Cyclic Evolution

The structure of socio-economic genotype allows seeing the general algorithm of direction and the distinctness of stages and cycles of the world economic system evolution. Commodity-money interaction of the first level of the genotype matrix makes up *the commodity-market or the commodity-money cycle* ending in the relevant crisis. The dominant processes of this cycle are commodity-money circulation, their supply and demand, market pricing, etc. The content of the subsequent *production-technology cycle* is the dominance of production processes, the technological basis and its updates; this is the period of active innovation development and introduction, the process of consumption and accumulation, modernization changes in technology, all of them being the sources of economic growth.

*The structure-investment cycle and crisis* are characterized by the growing fixed assets and working capital investment and by structural changes: innovations are replicated, new industries and branches are created and old industries undergo modernization changes. Though they do not play the leading part, the content and the problems of previous cycles are included in a subsequent cycle. Financial (cash) crisis, for example, accompanies subsequent crises. *The final cycle and the system crisis* are related to the transition of the system from one long-wave stage of development to another, for example, from the stage of classical capitalism to the stage of non-classical capitalism, or from one institutional-economic structure of development to the next (e.g., from conservative to liberal), which will be discussed later. Thus, the genotype cycles and their processes act as driving forces of economic evolution.

The identified genotype cycles manifest in real historic cycles and crises, the specificity of countries and regions being taken into account. We are not going to focus on the history of economic cycles. We shall describe a fragment of *the world cycles*. This is important for our further analysis of the “economic miracle”. We shall start with the non-classical, liberal (with the dominance of economic entities) model of capitalism. *The commodity-market or the commodity-cash cycle of the late 1870 – early 1900-1903* begins with the end of the world crisis of the second half of 1870s and ends in the early 20th century crisis of decreasing prices and of many other problems in monetary sphere. *The production-technology cycle of 1900-1903 – 1907-1908* is characterized by technological progress, by advances in chemistry,

metallurgy, automobile industry, by the growing use of electricity, telephone, etc. The crisis is connected with the processes of accumulating capital in main economic sectors. *The structure-investment cycle of 1907-1908 – 1920-1921* is the period of active industrial, administrative, and residential construction, the period of increasing energy power consumption and production, railway construction, total renovation and the expansion of capital base economic sectors. *The final cycle of 1920-1921 – 1929-1933* ends in a system crisis *at the transition* from the stage of non-classical capitalism to the next, *post-non-classical, stage*.

*The commodity-market or the commodity-cash cycle of 1933 – 1937-1938*, as well as the subsequent cycles of this model, is characterized by the conservative economic policies of state control in economics, the control of effective demand being an important tool of it. The subsequent *production-technology cycle of 1937-1938 – 1948-1949* was modified by the war. However, the war gave an impetus to a "third" industrial revolution, the development of high-quality metallurgy, the use of nuclear energy, the invention of first computers, etc.

*The cycle of 1948-1949 – 1957-1958 or the structure-investment cycle* is characterized by the growing capital investment with its accelerated depreciation, by the expanding production capacity under the influence of scientific and technological progress and structural changes in economics, by the increased housing, etc. *The final cycle and the system crisis of 1957-1958 – 1973-1975* are characterized by the transition from the dominating conservative structure of state control in economics to the liberal structure within the framework of post-non-classical stage of capitalist development.

#### **4. Evolution Factors and Strategies for the Creation of "Economic Miracles"**

The analysis of the "economic miracle" in different countries and regions makes it possible to reveal the following main driving forces and factors of its formation.

1. The logic of modernization and development strategy in these countries reflected the general logic of economic evolution. In Russia, Greece, Japan, Taiwan, China and in other countries the reforms began with agricultural reforms aimed at transmitting certain rights on land to those working on it, thereby laying down the foundations of entrepreneurship.

2. In the late 19th - early 20th centuries, in Russia there was conducted liberal, and since the mid-20th century in Germany, Italy, Greece, Japan and other countries – conservative (in the economic sense) policy of state control in economics. This policy was conducted in full agreement with the succession of genotype cycles.

3. The economic policy of these countries reflected the succession of the identified economic cycles: the first task was to fuel the demand, to develop commodity-money relations, and to carry out monetary reforms. After that the technological base was updated. Since 1950s, in line with the structure-investment cycle, structural and investment policy has been actively pursued. Since the second half of the 1970s, the policy of active state control in economics has not brought any subsequent desired effect in the countries which implemented this policy, for the liberal economic model has become the dominant one. There appeared additional transaction costs which resulted from the disagreement of the existing forms of economic management with the genotype characteristics of this very stage of evolution. The closer the type of economic management to the classical genotype, the lower the level of transaction costs is, and vice versa. Some authors point out the “institutional transactions: those that increase production efficiency; those that redistribute the income; those that redistribute economic opportunities, those that redistribute economic benefits” and others<sup>8</sup>.

4. “Long waves” that include the identified genotype cycles reflect the succession of alternating stages (and structures) of conservatism, liberalism and their unity, which will be discussed later. The format of the article permitting, we shall discuss in more detail the characteristics of the “economic miracle” in some countries.

*Germany.* In 1946, A. Müller-Armack introduced the term “social market economy”. He wrote, “social market economy cannot be regarded as a kind of neoliberalism... Its likeness to neoliberalism cannot be denied; we owe neoliberalism many important ideas; still, while neoliberalism considers competition mechanism as the only organizing principle, the concept of a social market economy has different roots...” Social market economy is connected with state and society, “the purpose of social market economy is to coordinate the spheres of life, represented by market, state and social groups”.<sup>9</sup> Freiburg School, a founder of ordoliberalism, assigns to the state the leading role in creating and maintaining the system of competition control, which in a broad sense is understood as organization with private ownership, monetary relations and other mechanisms for regulating the conditions of “economic order”.

In parallel with the currency reform of 1948 in Germany, in accordance with the directives of Ludwig Erhard, the demand was actively stimulated, up to the year 1958 the prices on basic food products were controlled, up to the year 1966 the prices on transport and postal services were controlled, government subsidies were introduced, and the prices in a number of industries, including energy industry, were

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<sup>8</sup> Sergeev, 2013. P. 136.

<sup>9</sup> Muller-Armak, 2007. P. 55.

managed. To establish the balance of supply and demand the “adequate prices” catalogs were issued, public deposits were frozen, foreign trade was expanded, etc. The conditions for the stimulation of labor and production, for the development of small and medium-sized businesses, were created.

In the late 1940s - early 1950s, investment was significantly expanded to increase the employment of refugees, migrants, etc.; construction sector and exports were stimulated, and moderate credit policy was conducted. The production of main capital industries was twice or three times as high as the increase in consumer goods production. The household income that provided significant domestic demand was growing. The positive results of monetary reform stabilized the currency and contributed to the expansion of investment.

Slower growth in the early 1960s caused the need for greater state intervention in economics, for the direct state control of macroeconomic processes: “competition – as much as possible, planning – as much as necessary”. But organic combination of plan and market failed. Since the second half of 1970s, the world economics has already been entering the liberal economic model. Old mechanisms of social market economy no longer worked, and Germany did not move to a new model in 80-90s.<sup>10</sup>

*Japan.* Postwar economic reforms started with the land reform aimed at transferring the land ownership to farmers, improving the situation with tenants, redistributing the land and financial resources for the benefit of real manufacturers. In conjunction with the processes of democratization, the development of entrepreneurship contributed to the expansion of domestic markets. Institutional reforms resulted in financial reforms.

In 1950s, vertically integrated zaibatsu were replaced by horizontally integrated keiretsu which developed their relations with small and medium-sized enterprises. The increased enterprise demand for machinery, equipment, building materials, and other investment products founded the grounds of industry development. In the period of 1955-1975, the rate of investment in equipment averaged 16% per year. Investment demand was fueled by consumer demand for durable goods, by the expansion of housing, and by high export rates. Since the second half of the 1950s, a specific mechanism of growth, “investment causing investment”, has been created. It based on the high accumulation rate and on the multiplier effect of investment in new production facilities and in renovating the old ones. The borrowed foreign equipment and technology, the policies aimed at promoting investment, the

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<sup>10</sup> See (Gutnik, 2002. P. 87, 90.)

availability of skilled labor, the infrastructure and other factors were the prerequisites for maintaining the demand for equipment.<sup>11</sup>

Since the end of 1970s, the programs of state control in economics have no longer given the expected results.

*The Republic of Korea.* The following succession of “5-year plans-cycles” of the country development can be presented. It agrees with the succession of the identified genotypic cycles, thus creating the “economic miracle”:

- up to 1960s – development of market relations, stimulation of demand, monetary reform;
- 1962-1966 – the first 5-year plan – rapid industrialization of the country, the expansion of exports as a mechanism for the formation of additional demand;
- 1967-1971 – the second 5-year plan – higher emphasis on the “growth poles” branches, restructuring of economics, growing investment;
- 1972-1976 – the third 5-year plan – in succession with previous five-year plans, improved living standards;
- 1977-1981 – the fourth 5-year plan – liberalization of economic life, introduction of indicative planning, domestic markets opened for foreign manufacturers;
- 1982-1986 – the fifth 5-year plan – development of high technology sector, etc.

*Russia.* After the abolition of serfdom, commodity-money relations actively developed and liberal reforms were carried out. Significant economic growth in 1880-90s contributed to the growth of money income and consumer demand, as well as the demand for industrial land, agricultural machinery, fertilizers, and construction materials. The demand of enterprises for the production of metallurgy, machinery, locomotives, ships, coal, and oil was increasing. From 1861 to 1913, the population of Russia grew by 2.5, which is the evidence of growing incomes. A successful monetary reform of the late 19th century contributed to the convertibility of the ruble and to the inflow of foreign capital.

After the global financial crisis of 1900-1903 the period of intense concentration of production and capital began. In this process Russia was in the lead. The latest equipment and technology were introduced. Modernization processes stimulated the development of science, which led to the discoveries and inventions of Lebedev P.N., Mendeleev D.I., Mechnikov I.I., Pavlov I.P., et al.

As is noted (see: Konotopov M. (ed.) 2008, p. 361), since 1909, in Russia there have been created favorable conditions for investment, banking system and banking associations; finance capital was established. The country witnessed the high rate of

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<sup>11</sup> See (Lebedeva, 2007. P. 12-14).

investment goods production which was almost twice as high as the rate of consumer goods production. Foreign investments were actively involved. The state invested as well, especially in railway construction. Modernization was carried out; new industries were developed (electrical, etc.). Along with major industries, there developed small-scale industries. "In general, the indices of output growth in the country exceeded those in Europe"<sup>12</sup>. The war and the subsequent historical events broke off the "economic miracle" in Russia.

We can make some conclusions and generalizations. Evolutionary processes include institutions; evolutionary-institutional methodology makes it possible to single out socio-economic structure of genotype and the levels of the genotype matrix through which the economic outcomes and the wealth of society are created (synthesized) and maximized. The content of the genotype matrix levels is the production of new goods and services and the expansion of demand, its stable cash collateral; maximization of production, innovation and upgrade of technological base, the processes of consumption and accumulation; investments for replication of innovations, new techniques and technologies, modernization of fixed capital, production structure and infrastructure, equitable distribution of income that expands the sphere of consumption, etc... This genotype matrix levels content reflects the complex of factors and driving forces of cyclical socio-economic changes, being realized through mechanisms of genotype cycles and crises. The "economic miracle" of a country or a region comes about when factual development strategy of a country or a region agrees with the logic (succession) of the genotype cycles, evolutionary and institutional factors of growth and development, thereby minimizing the transaction costs of economic relations and outlining the optimal trajectory of the economic system development.

## References

- Berg H. (2001) *Economic growth and development*. Boston McGraw-Hill.
- Bodrikov M. (2009) *Classical theory of value: the modern sound of unresolved problems // Voprosy Ekonomiki, № 7. Pp. 97-118.*
- Chepurensko A. (red.) (2001) *The Social Market Economy in Germany: Origins, concepts, practice / A. Chepurensko. M.: ROSSPEN.*
- Druzhinin N.L.(2003) *Japanese economic miracle. St. Petersburg. Peter.]*
- Gregory P. (2003) *Growth of the Russian Empire (late 19th century-early 20th century): New calculations and estimates. M. ROSSPEN.*
- Gutnick V.P. (2002) *Politics of the economic order in Germany. M.: The Economy.*
- Kleiner G.B. (2014) *Rhythms of evolutionary economics // Voprosy Ekonomiki, № 4. Pp. 123-136.*

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<sup>12</sup> Gregory, 2003. P. 248.

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- Konotopov M. (ed.) (2008) *Economic History of the World in 6 vols. V.3* / Ed. M.V. Konotopova. M. KNORUS.
- Lebedeva I.P. (2007) *Japan: Industry and Entrepreneurship (second half of 20<sup>th</sup> - beginning of 21<sup>st</sup> centuries)*. M. Eastern. Lita.
- Leontovich V.V. (1995) *The history of liberalism in Russia 1762-1914*. M.
- Maevsky V. (1997) *Evolutionary theory and macroeconomics* // *Voprosy Ekonomiki*, № 3. P. 27-41.
- Martishin E.M. (2011) *The evolution of the world economic system (epistemology, mechanisms of genetic continuity, global cyclicality)*. Rostov n / D Univ. SFU.
- Muller-Armack A. (2007) *The principles of the social market economy* // *Social Market Economy: concepts , practical experience and application prospects in Russia* / ed. RM Nureyev M. TEIS . P. 52-72.
- Pervyshin V.G. (2006) *At the turn of the eras. History of Russia from 1961 to 1941*. Moscow: Sputnik + Company.
- Sergeev A.M. (2013) *Transactions of the innovation process: theoretical and methodological aspects of the analysis* // *Journal of Economic Theory*, № 4. P. 134-142.
- Sundaram D.K. (2012) *On the economic development strategies* // *Finance and real sector: cooperation and competition. Proceedings of the IX International Symposium on Evolutionary Economics. 8 - 10 September, 2011, Russia, Moscow region, Pushchino* / Ed . Editors V.I. Majewski, S.G. Kirdina. Moscow Institute of Economics. Pp. 100-102.

