## Innovative-Industrial Attainments and Post-Industrial Issues

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Annotation: An innovative-industrial economy is the most effective model of synergy of the creative potential of human capital and society in the entire spectrum of socio-economic being. By the 2012 the leaders of post-industrial world acknowledged the global trade misbalance between post-industrial and industrial economies in favour of the industrial economies. By 2010 China developed and implemented effective economic, political and legislative solutions, the successful implementation of which really created the foundation for further socio-economic development and successful ingress into the global post-industrial economy. There are the decisive achievements of Chinese economy and society upon innovative-industrial economy momentum.

**Keywords:** post-industrial economy, industrial economy, knowledge based industrial economy, innovative-industrial economy, Chinese economy.

# Інноваційно-індустріальні досягнення та постіндустріальні проблеми Б.І. Остапенко

Анотація: Інноваційно-індустріальна економіка є найефективнішою моделлю синергії творчого потенціалу людського капіталу та суспільства в усьому спектрі соціально-економічного буття. Вже у 2012 році лідери постіндустріального світу визнали глобальний торговельний дисбаланс між постіндустріальними та індустріальними економіками на користь індустріальних економік. К 2010 року в Китаї були розроблені та впроваджені ефективні економічні, політичні та законодавчі рішення, успішна реалізація яких реально створила фундамент для подальшого соціально-економічного розвитку та успішного входження у світову постіндустріальну економіку. Наявні вагомі досягнення китайської економіки та суспільства на імпульсі інноваційно-індустріальної економіки.

**Ключові слова:** постіндустріальна економіка, індустріальна економіка, індустріальна економіка, заснована на знаннях, інноваційно-індустріальна економіка, китайська економіка.

#### Introduction

The civilizational positioning of society, arising from its epistemological and technological effectiveness, and determined by the dominant worldview orientation, forms the foundation of the historical fate and geopolitical place of the society and nation. Bare necessities and creative possibilities should unite within the worldview orientation toward human capital embodiment. Life learning endorsement and vertical mobility instigation invigorate personal and social being over the pinnacle of spiritual, intellectual and social fulfillment. What socio-economic system and worldview orientation create most viable and sustained opportunities for individual attainments, social cohesion and economic performance?

How effective and viable global economy division on post-industrial and industrial states? Can implementing knowledge based economy within industrial economy excel post-industrial economy?

### **Models of Economy**

To ensure global competitiveness and internal stability, the leading communities are developing mechanisms for the vanguard of scientific, technical and social activities. In the modern world, several successful socio-economic models of society have developed that retain common characteristics. In the scientific literature, Scandinavian, European continental, Anglo-American, Japanese, and a new Chinese socio-economic model are distinguished. The most interesting in civilizational positioning seems to us the Scandinavian model of the socio-economic structure of society.

## **Scandinavian Model of Economy**

The main principles for this model are the principles of social cohesion, ideological orientation towards a socially oriented creative embodiment of a person, and a socially oriented market economy. Social cohesion consists the economic policy of harmonizing the initial starting conditions and income inequality of all members of society. The difference in the initial conditions of a child's life in the Scandinavian model is compensated by the health care system, education and vertical mobility, which are guaranteed by law and financially secured. The gap in family income is harmonized by taxes, which allows for the universality of health care, education and social integration of citizens. But these principles alone would not be enough to ensure the avant-garde productivity of the Scandinavian model of society. A key addition to the social cohesion is the implementation of the "learning economy" system [7]. The learning economy system financially and socially motivates people and businesses to continue their education throughout their lives. The motivation policy includes tax breaks for individuals and for businesses to invest money and time in education. The result was a learning economy from generation to generation, continuity and continuity in the development of society, which ensures successful civilizational positioning. The third principle of the Scandinavian model is a socially oriented market economy. The Scandinavian model integrates private entrepreneurship, market competition, social responsibility of agents of economic activity and professional activity. Trade unions in the Scandinavian model are, by law, co-authors of the economic policy of enterprises. For more than fifty years, the

Scandinavian model has proven to be economically and socially efficient and competitive even in a global economy.

## **Anglo-American Model of Economy**

The Anglo-American model is characterized by an emphasis on the economic efficiency of agents of socio-economic activity of the majority of the population. Based on other priorities, the social mechanisms for harmonizing various starting conditions and incomes in this model are weaker than in the Scandinavian one. In the Anglo-American model, social cohesion aims not at the universal creative embodiment of all individuals, regardless of their starting and current socio-financial position, but at minimizing social tension and maintaining the socially secure prosperity of the most successful members of society. The logic of the need to attract professionals of the best quality dictates the introduction of the principles of a learning economy and the harmonization of vertical mobility in the Anglo-American model. The degree of effectiveness of the Anglo-American model in the global economy is close to the Scandinavian model, but the social and existential quality of the Scandinavian model is higher. Human capital in Anglo-American economy is not universally socialized and integrated into socio-economic fabric.

#### **Continental European and Japanese Models of Economy**

The continental European and Japanese models are characterized by the observance of the above principles of building a socio-economic model: social cohesion, worldview orientation towards the creative embodiment of a person, and a socially oriented market economy. The differences are quantitative in the field of microeconomics, fiscal and social policy. They also have differences and specific priorities in the sectors of the economy and knowledge. Thus, France systematically subsidizes its agriculture, including through the mechanisms of the European Union. Switzerland specializes in precision engineering and instrumentation. Japan continues to invest in maintaining its decades-old leadership in electronics and is active in nanotechnology. The European Union also consistently embodies all of the above three principles in its socio-economic policy. To do this, the European Union uses the mechanisms of targeted regional development.

## **Command Economy**

Just like a socially oriented market model, the command economy provided social cohesion and an avant-garde worldview. Indeed, the USSR demonstrated brilliant achievements in the field of science and technology for many decades and several generations. However, the intrinsic shortage of the socioeconomic model of the USSR turned out to be a command economy built on specific criteria for motivating economic activity, which caused a systematic shortage of a significant range of goods and services, including essentials, for a very significant number of the population. The mechanisms of the command economy, showing their effectiveness in a limited range of specially formulated scientific and technical problems, did not work in the many sectors of the economy, where command economy put rather constrain suppressing economic entrepreneurship while incapable to perform in each and every

sector of economy. While not allowing the supply-demand mechanism and market competition in many sectors of the economy perform on its own the command economy used the motivations of quotas attaining systematic deficit of significant goods and services. The socio-economic imbalance and depletion of the resources of the Soviet Union, which was inefficient and did not satisfy the main demand for goods and services, outweighed the avant-garde scientific, technical and social achievements, determining the geopolitical defeat of the command economy model.

## Mobilizing Effectiveness of State in Scientific and Technological Development

A state, government funded institutions provide an important advantage to mobilize and propel socially and strategically essential scientific, technological and infrastructure development. Modern socially oriented market economies actively and successfully use the organizing and financial potential of states and their cooperation for the implementation of scientific, technical and infrastructure development projects. Moreover, states are also responsible for creating an efficient, safe and secure socio-economic climate that ensures the avant-garde productivity of science, technology and society while providing human capital to avail. The mechanisms for organizing, stimulating and financing scientific and technical activities use tenders and other forms of a competitive nature, which makes it possible to provide state and public orders in the most efficient way. Such principles are embedded in the policy of the European Union of America, Canada, Japan, Switzerland, Chine and many other countries.

### **Economy of Segregation and Outsourcing**

The instability of lazy-fair or poorly regulated market economy is due to the lack of moral, social and financial motivation for socially oriented scientific and technical activities. Such economy models are not sufficient to realize the avant-garde potential of synergy between the individual and society. Without specific mechanisms for ensuring vertical mobility, social cohesion and socially oriented worldview, the lazy-fair market economy excludes significant human creative resources from socio-economic activity. Thus is the policy of outsourcing of the social and economic activity out of the society and country [2]. The policies that reduce the avant-garde potential of society are barriers to vertical mobility, part of which is the use of segregation (racial, ethnic, class, linguistic, cultural and legal) [3]. Violation of vertical mobility is a significant barrier to the implementation of the avant-garde creative potential of human capital and thus social and economic accomplishments. Selective provision of social inclusion and security only for individuals who have already achieved success inevitably reduces the avant-garde potential of society, since the damage to individuals who carry avant-garde knowledge and are in process of creative becoming could be irreparable at the initial stages of their implementation in the society and profession. Segregation - class, racial, ethnic, cultural, linguistic and legal - isolates a certain part of human capital potential from participation in the creative process and reduces the avant-garde prospective within society. In addition to losing some of its avant-garde creativity, a segregated society becomes the victim of a redirection of its resources to create and manage conflicts. In this regard, we again draw attention to the fundamental political doctrine formulated in the European Union, which affirms the need

for a modern society to systematically ensure vertical mobility, secure human rights, and providing social cohesion [8, 11]. Proper society must remove all these barriers and disturbances in order to avoid social disruption, human suffering, and strategic civilizational backwardness.

### **Post-Industrial Economy Issues**

Since 1990-th economic policy of outsourcing production and services out of the regions and countries for which this production is intended, to regions with cheap and unprotected labor, have acquired a special role in achieving financial efficiency for entrepreneurs. The transfer of production to regions with a mass and cheap labor force makes it possible to combine the efficiency of a scale economy with the minimum cost and protection of labor, significantly increasing the profitability of investments. The social situation that has developed as a result of the methods of outsourcing of the production of goods and services turned out to be socially destructive. While providing additional financial efficiency for a very limited circle of people, the outsourcing model disqualifies a significant part of the population of society. There is a de-industrialization of entire regions that were previously involved in productive socio-economic activities. The demand for professionals in production and services is to some extent compensated by the simplest jobs, and to some extent by professional retraining. But for very many the job los ends with exclusion from socio-economic activities and existential fulfillment. In addition to the problem of de-qualification and de-industrialization, there is also a cultural impoverishment of socioeconomic productivity. The cultural dimension of socio-economic activity, including in production and in the provision of services, is an integral value of culture. Diminishing the diversity of aesthetic forms, enriched individually, nationally and culturally, deprives the world community of the additional value of cultural diversity. The creative possibilities of human realization are also destroyed. By concentrating resources in avant-garde, knowledge-intensive and high-end industries, a post-industrial society can only employ a limited part of its human capital. Thus the avant-garde potential of human capital and social synergy is declining. Civilizational positioning of the post-industrial society strategically deteriorates. The outcome of the outsourcing model of economy requests for adjustment. Priorities should be reallocated from utilitarian financial to creative social objectives.

#### Global Trade imbalance between Post-Industrial and Industrial Economies

By the 2012 the leaders of post-industrial world acknowledged the global trade misbalance between post-industrial and industrial economies in favour of the industrial economies. In February 2012 the President of United States of America B. Obama said that "the key to the American economy out of the crisis is production"[5]. Moreover, next month the Prime Minister of Great Brittan D. Cameron asserted that "the restoration of production is necessary for the British economy"[1]. Already in 2010 executive vice president of the Chinese Academy of Science and Technology for Development Wang Yuan says "China must move from a low-cost manufacturing economy to an economy driven by science-based innovation." [10]. Aiming to compete with post-industrial economies by 2010 China developed and implemented effective economic, political and legislative solutions, the successful implementation of

which really created the foundation for further socio-economic development and successful ingress into the global post-industrial economy. Here is impressive list of China's Major Policy Reforms [12]:

- 1978 "Open door" policy initiated, allowing foreign trade and investment to begin
- 1979 Decision to turn collective farms over to households; TVEs given stronger encouragement
- 1980 Special economic zones created
- 1984 Self-proprietorships encouraged, of less than 8 people
- 1986 Provisional bankruptcy law passed for SOEs
- 1987 Contract responsibility system introduced in SOEs
- 1988 Beginning or retrenchment of TVEs
- 1990 Stock exchange started in Shenzhen
- 1993 Decision to establish a "socialist market economic system"
- 1994 Company law first introduced
- 1995 Strategy of vitalizing the country through science & education initiated
- 1996 Full convertibility for current account transactions
- 1997 Plan to restructure many SOEs began
- 1999 Constitutional amendment passed recognizing private ownership
- 2001 China's accession to WTO
- 2002 Endorsement of the role of the private sector
- 2003 Decision to "perfect" the market economic system
- 2004 Constitution amended to guarantee private property rights

The existing global division of labor into the post-industrial "golden billion" and the industrial world when the former produced and exported knowledge, while the latter produced industrial products based on imported knowledge and paid with industrial exports, demonstrates world trade imbalance. Post-industrial countries no longer cope with the task of producing the necessary amount of knowledge and its successful export to cover their needs for industrial products. Thus a declared in United States, Great Brittan, the decades long leaders of post-industrial "golden billion" revival of industrial sectors of economy [1, 2, 4, 5, 6, 11].

#### **Innovative-Industrial Economy Momentum**

Furthermore industrial countries have increased the production of knowledge to the level of a strategic turning point in the global division of labor, importing knowledge from post-industrial countries less, gaining more productivity based on their own knowledge, and successfully competing with post-industrial countries in the market of technological and scientific know-how. At the same time industrial economies have a strategic advantage in the production of vital goods. Therefore, the leadership in the global division of labor is shifting to industrial knowledge based economies. Moreover, the initial compensation for a significant loss of jobs in post-industrial countries with the financial and socio-

economic benefits of the transfer of industrial production to regions with a cheap labor force that is not subject to an expensive system of social guarantees is no longer sufficient to ensure a high standard of living for the "golden billion". Post-industrial countries began to live on credit, were unable to retrain and employ millions of workers in industrial professions after the withdrawal of their production facilities abroad, and gave rise to a whole class of people excluded from socio-economic and professional activities for life. Therefore there are the decisive achievements of Chinese economy and society upon innovative-industrial economy momentum [9].

#### Conclusion

The avant-garde economic and social human capital of the innovative-industrial socially oriented market economy is the most viable and competitive. It unites the efforts of all willing citizens of the society and motivates them socially and creatively. The innovative-industrial society is a symbiosis of industrial and innovative production capabilities in one socio-economic system together with agricultural production and cultural fecundity. The key to understanding the experience of an innovative-industrial economy is the vision of synergy of scientific, cultural, industrial and agricultural production in one society. Furthermore, innovative-industrial socially oriented market economy assures efficiency for provision of knowledge, food, goods and services through the universal involvement of the entire human capital, communicating their existential needs within advantages of affordable social, intellectual, and spiritual real-time information technologies connections. The concept and experience of the innovativeindustrial socio-economic model of society outlined in this article substantiates the possibility of a systemic solution to a number of challenges and ensures an increase in the avant-garde power and wellbeing potential of society. Moreover, conditions are being created to achieve a balance in world trade between post-industrial and industrial countries. Furthermore, systemic opportunities are being created to overcome the existing gap between those who are socially included in the economy and those who are excluded from the socio-economic activity of citizens. Furthermore, creating inclusive systematic opportunities involve each member of society in the socio-economic activities of their country, which increases the avant-garde scientific, technical and social synergy of society. An innovative-industrial economy is the most effective model of synergy of the creative potential of human capital and society in the entire spectrum of socio-economic being.

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