## MACROECONOMIC TRENDS OF INNOVATIVE DEVELOPMENT OF UKRAINE AND THE PEOPLE'S REPUBLIC OF CHINA

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**Abstract.** Macroeconomic trends of small business innovation development in China and Ukraine and its dependence on financial support are analyzed. Based on the experience of small business support in China, prospective ways of improving small business innovative development are determined in Ukraine.

Keywords: innovation, innovative development, national economy, small business.

Innovation management is the basis of any national innovation strategy and proves effectiveness even in a crisis economy. An example of the effective use of the global crisis for its own purposes is the strategy of China, which has profitability acquired innovations and innovative personnel around the world during the global crisis of 2008–2009.

China after experiencing economic chaos during the cultural revolution of 1966–1976 and impoverishing the population, places stability in the conduct of economic policy on the first place. As a result, this poor agrarian country has taken a fantastic path in several decades and today is firmly on the leading position in the world. As early as 1979 China's GDP was 2.7 times less than the GDP of the Soviet Union today, and today in terms of economics China is ahead of all European countries. It confidently deserved second place after the US [1]. It has never happened in the world history that in such a short period of time a country made such a rapid breakthrough. Such a jump is due, first of all, to the competent strategic steps of the country's leadership, the use of available advantages such as: territorial location, availability of raw materials, cheap labor and so on.

Since 2008, the Ukrainian government has also prioritized building a new innovative economy [2], but unfortunately, the path Ukraine has taken over this period, and generally during its independence period, has not led to the adoption of an innovative economic development model. This is due primarily to the fact that, unlike the authoritarian China, Ukraine had to make transformations in two planes – not only economic but also political. However, studying China's experience for Ukraine is very useful.

China was one of the first countries to realize what innovations are, what properties they possess and what laws they develop. Even the United States and the European Union, considering technical and technological innovation first, are losing out to China's holistic innovative development strategy.

No wonder the spring of 1978 in China is called the «Spring of Science», because at this time the process of innovative development was launched, reform of science and technology in China. The National Science Conference, held in Beijing in March 1978, announced the state's policy of supporting science and technology. During the conference, Dan Xiaopin put forward his thesis that «science and technology are the drivers of progress,» and uttered for the need to remove political barriers to scientific and technological development after ten years of chaos. This presentation set the stage for the creation of a strategy for the country's revival by developing science and education and strengthening the nation through the development of human resources. The participants of the conference discussed and approved the «National Science and Technology Development Plan for 1978–1985», which became the road map for the transformation of China's science and technology system. In 1992 China proclaimed a policy of openness to the outside world [1]. The country purposefully created the conditions for maximum use of resources, finances, attracting foreign innovations, created more than 60 special free economic zones, which started the inflow of foreign investments. These investments have served as a source of creation and development of modern production, innovations in the field of IT technologies and HRmethods of doing business. China has also set up special IT zones where foreign investors have been granted unprecedented tax breaks and lands.

Today, China has launched a consistent, large-scale, comprehensive program of innovative

development, which is reflected in the long-term National Program of Innovation Strategy 2020–2050, which plans that by 2020 China will be included in the list of innovative countries, by 2030 – will enter the first ranks of innovative states, and by 2050 it will become the world's leading state of scientific and technological innovations [3]. The program stipulates that innovation should become the main driving force for development. At the same time, scientific and technological innovations should be supported by innovations in the field of public 56 institutions, culture, models of management and trade, which will allow to move to a higher level of economic development with a more rational structure of innovative expenses.

As for Ukraine, from 2008 to 2019, GDP growth is ambiguous, which is related to the global economic trends: the global crisis of 2008–2009, which led to a 2009 GDP decline of a record -15.1 %. As well as with internal problems of both economic and political nature: the beginning of the ATO in 2013 had a negative impact on the economic environment of Ukraine. Iin particular, an active outflow of foreign investors who were not satisfied with the unstable military situation in Ukraine began, which led to a decline in growth GDP for 2014 and 2015 by -6.6 % and -9.8 % respectively. Also, the negative fact that led to such a deterioration in GDP growth was the self-declaration of the Lugansk People's Republic and the Donetsk People's Republic, as well as the annexation of Crimea – it is impossible to take into account the GDP in these territories, especially in the Crimean peninsula, which is under Russia Federation control. But since 60 2016, there has been an increase in GDP growth, which testifies to the stabilization of the economic, political and, partially, military situation in Ukraine, which is a positive trend.

One of the modern indicators that assess the level of economic development of the country is the indicator of economic freedom. Economic freedom is a fundamental right of every citizen to control his or 67 her own work and property. In an economically free society, people are free to work, produce, consume and invest in any way, provided that they enjoy this freedom, both protected by the state and not restricted by the state. In economically free societies, governments allow labor, capital and goods to move freely, and to refrain from being forced or restricted by freedom against the background necessary to protect and maintain freedom itself. It measures this percentage from 0 % to 100 %, where 100 % means complete economic freedom. In Fig.1 reflects the dynamics of the economic freedom indicator in China and Ukraine.



Fig. 1. Comparative analysis of the economic freedom index in Ukraine-China

Given the data of Fig.1 shows that economic freedom in Ukraine is higher than in China. However, the results of this freedom are not reflected in the economy of Ukraine. This is probably due to the difference in institutional conditions of the economies of the two countries. We emphasize that the index of economic freedom is an important indicator for innovative development. And so fig.1 demonstrates that the institutional environment for the development of innovative entrepreneurship in Ukraine needs improvement. It is probably in this area that China's experience may be extremely relevant to Ukraine.

Briefly summarize China's and Ukraine's key innovations in 2018 [4, 5, 6]:

1. According to the Global Innovation Index (GII), China is ranked the 17th, having risen by 5 positions

from the previous year. As for Ukraine, it ranks the 43rd in GII-2018, rising 7 positions from the previous year.

2. China is ranked the 1st among 34 high-income countries. Ukraine ranks the 1st among 30 low- and middle-income countries.

3. The Chinese economy is ranked the 5th among 15 countries in Southeast Asia and Oceania. Ukraine's economy ranks only the 30th among 39 European countries.

4. Over the last three years, China has improved its ranking in terms of innovation, ranked in the top ten in the Sub-Index of Innovation Production, ranking the 10th this year.

5. Innovative deposits are steadily growing and their Sub-Index has reached the 27th position, rising from the 31st in 2017. As for Ukraine, in 2018 it improved its position, having risen by 2 points compared to last year and reached position number 75.

6. China's innovation efficiency ratio is also consistently high, demonstrating that China is effectively commercializing its innovations. This year, as in 2017, China ranks 3rd in the world, rising from the 7th position in 2016. As for Ukraine, in 2018 it improved its position, having risen by 5 points compared to last year and reached the 35th position.

7. In Human Capital & Research, China ranked the 23rd in 2018, Ukraine ranked the 43rd in the world.

8. China is ranked the 2nd in the world in business-funded research and development, and Ukraine is only the 40th in terms of global R&D spending.

9. In the field of business development, China ranks the 9th, demonstrates a high level of knowledge of workers – in the «Knowledge workers» ranked the 1st, in the «Firms offering formal training» ranked the 1st, and in terms of imports of high-tech goods the 3rd place in the world.

10. In 2018, Ukraine is ranked the 46th in business development, the 27th in Knowledge & Technology Outputs. At the indicator level, Ukraine has a high level of five indicators: productivity growth – the 15th place, 83 computer program costs – the 17th place, IT services exports – the 15th place, patents – the 15th place and utility models – the 1st place in the world.

Therefore, any policy aimed at finding innovative mechanisms for solving economic problems should be based on the development of an effective innovation strategy for the development of the country as a whole, and of individual components of its economy in the form of consistent and strong support for small and medium-sized businesses, which is the basis 82 innovative activities, as evidenced by its rapid development, the People's Republic of China, whose experience is useful to take in Ukraine to create an innovative and economically stable state.

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