



**GASYUAN: A CHINESE INNOVATION  
ON THE GLOBAL GAS MARKET**

(for the release of Huang Xiaoyong's<sup>1</sup> book on "Gasyuan"<sup>2</sup>, in Chinese)

For Ukraine as an energy-dependent country, it is important to keep track of the current trends and innovations in the global gas market to find the best solutions to meet its needs. In this context, of great interest is the book by Chinese scientist, professor, doctor of international economics Huang Xiaoyong, "gasyuan", which saw the world in 2018. The study presents the current trends in the formation of gas market in the PRC, as well as the impact of these processes on the structural changes in global energy markets.

The book's name explicitly suggests the analogy of the term "gasyuan" with the term "petrodollar", introduced in 1973 by the professor of Georgetown University I.Oweiss during the then energy crisis and the corresponding jump in oil prices. The petrodollar appeared to be a conventional currency unit in the formation of revenues of the OPEC members and other oil producing countries. The idea of introducing the gasyuan is due to China's role as one of the largest centers of gas consumption and redistribution, as well as this country's influence on the formation of global gas prices.

Today, the East Asian region is the most dynamic in the world. Such countries as China and South Korea show high and stable rates of economic growth. More than a half of the world's GDP is produced in East Asia, where about 40% of the world's population live. In this sense, the center of world development is gradually shifting to East Asia. The needs of the region's economic development require stable volumes of energy supplies and, to a large extent, those of natural gas, since these countries consider it the main fuel type.

The issue of the functioning of the petrodollar market, possible prerequisites for the emergence of gasyuan in the modern global system of economic relations and the importance of its introduction are discussed in the first chapter. In the second chapter, analyzing the situation on Chinese domestic energy market, the author argues the need to improve the structure of the energy market via its reformation, one of whose strategic directions, in his opinion, should become reducing the carbon emissions and energy costs. Prof. Xiaoyong also raises the question of the need to raise the role of East Asia as a center of gas redistribution. The introduction of gasyuan would contribute to further internationalization of the Chinese yuan (various practical ways are discussed in the third chapter).

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<sup>1</sup> Huang Xiaoyong, the President of the High School of the Chinese Academy of Social Sciences, Vice President of the University of the Chinese Academy of Social Sciences, Professor, Doctor of Economics, a renowned Chinese economist, specialist in the development of global and Chinese energy markets, is author of many scientific and practical studies on these issues. Since 2018, he has been a member of the editorial board of the journal "Economics and Forecasting".

<sup>2</sup> 天然气人民币 / 黄晓勇等着。 - 北京 : 社会学文献出版社, 2018.



Describing the situation on both the global and Asian gas markets, Prof. H. Xiaoyong emphasizes that the formation of Chinese gas market should rely on the global experience. Arguing the need to establish a gas trading center in China, he raises questions as to the need to improve the international gas pipeline system and build a relevant domestic system in China for subsequent inclusion in the single global network. Modernization of the national gas pipeline system should include the attraction of investments and modern technologies.

Further development of China, ensuring decent living standards of the Chinese people and meeting their needs are inseparable from a civilized attitude towards the environment, support of "green" development and increased overall efficiency. All that requires the creation of appropriate conditions - first of all the introduction of a number of innovations in the management system and development models via the use of high technologies.

According to author, the introduction of gasyuan is exactly such an innovation. Using the Chinese yuan to invest in the gas industry, and gas production and trade would help raise the share of yuan denominated settlements and pricing in on the global gas market. However, this system will be completed when China's gas trading center has been established, which would become a Chinese peculiar innovative contribution to the reform of the global energy market. In prof. H. Xiaoyong's opinion, this would help regulate the structure of China's energy market, modernize and develop this country's industry, agrarian sphere, accelerate information and urbanization and sustainably improve living standards while increasing the use of "clean", "green" and high-tech technologies.

Also, author considers that the introduction of gasyuan would contribute to transformation of China's energy sector and assist in the formation of this sector's safe financial system, and would also strengthen this country's energy and financial security. At the same time, internationalization of the yuan would create great opportunities for the development of the world community by popularizing the leading role of the PRC in international cooperation and global governance. This would give China an opportunity to become a leader of economic globalization, shape this country's multilevel open economy, and support its economic power and integrity.

The author also dwells upon various financial aspects of the formation of gasyuan market, focusing, among other things, on: harmonization of the settlement system and price setting in gasyuan, support of the gasyuan circulation via bidding, liberalization of the yuan capital account, formation of foreign market for the Chinese yuan and measures to prevent risks from the liberalization of the yuan denominated capital accounts.

Prof. H. Xiaoyong substantiates his conclusions about the advantages of introducing gasyuan with the imperfection of the existing global monetary system, the dominance of the US dollar in the international energy settlements. Although the role of the US dollar in international settlement and credit operations is currently decreasing, it still remains the leading global currency. Currently, most international exchange transactions are currently carried out and most of the sovereign reserves are kept in the US dollars. Foreign countries enter to the US capital market,

where they place their free dollar funds on deposits or invest them in bonds and stocks. In turn, the USA, using the almost monopolistic position of their currency, can emit it at their own discretion<sup>3</sup>.

Potentially, that reduces, for the USA, the cost of access to world commodity markets. In addition, most prices for goods, services and borrowings are formed in US dollars too. The existing pricing practices with the prevalent use of the US dollar create potential imbalances that can lead to economic crises. Prof. Xiaoyong believes that the introduction of gasyuan and establishment of a new natural gas trading center in China would exert influence on the global monetary system, since the demand for the Chinese yuan would increase with a simultaneous rise of the yuan denominated account balances. Formation of a multi-currency system of international settlements would help reduce the currency risks, which arise from the domination of a single currency. It could also have a positive effect on the pricing of major commodity groups, especially energy.

Author notes that the level of global integration of the gas market is presently low and lagging far behind the rates of globalization of the coal and oil markets. In addition, the current global mechanism of gas pricing is not integral, which leads to a significant difference in gas prices in different regions of the world. A confirmation of this is the situation on the Asian gas market. In particular, in 2012 the price for gas in Asia was five times higher than in America and three fold the price of gas in Europe. So the formation of an East Asian gas market and introduction of gasyuan could overcome the above mentioned disparities on the global gas market.

The favorable geographical position of China in East Asia (practically in its center), its neighborhood with all East Asian countries – Japan, North Korea, South Korea, and Mongolia, the extensive energy infrastructure, which was created during the years of reform, including the gas pipeline system (though in need of some modernization and further extension to the neighboring countries, but still allowing gas to be supplied there), all those are advantages that none other East Asian country has. Russian plans to build direct gas transportation system in East Asian countries, bypassing China seem unlikely because such a system requires significant investment and time. Presently Russia lacks free resources for the construction of such gas pipelines, and even if it will be built, the effectiveness of its operation will be questionable. All that is in favor of China as the center for gas redistribution in East Asia.

Prof. Xiaoyong points out that the center for gas trade should be established exactly in China. First, China has been showing high rates of economic growth. Even though they have fallen in recent years, they will still remain among the highest in the world. Hence, the demand for imported energy in China will grow accordingly. Today, the PRC embodies a new model of economic development – the so-called "qualitative model" or "the new normality", which means the transition from quantitative growth to quality. The essence of this model is that economic development

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<sup>3</sup> 天然气人民币 / 黄晓勇等着。 – 北京：社会学文献出版社，2018. P. 6–7.



is based not on exports and investments, but rather on the expansion of domestic consumption and structural changes in domestic economy. Author believes that the economic changes that are under way in China will require increased volumes of energy materials, including natural gas, since the demand for them will only increase.

Another argument in favor of Chinese gas trading center is the fact that this country is currently undergoing a transformation of its domestic energy market. Throughout the period of economic reforms, the main energy material in China was coal, whose reserves in the country are still sufficient to meet domestic needs. However, the use of coal compared to other energy sources is costlier, less efficient and environmentally hazardous. Excessive use of coal has negatively affected this country's environment, which today is one of the largest "pollutants" in the world. The Government is aware of this problem and is taking steps to solve it.

As one of such steps, it is planned to raise the consumption of imported gas and expand its domestic output. The author gives an example of the US, which, with the increase in the output of shale gas, performed a real energy revolution. The price for gas inside the USA, due to domestic production based on the use of modern technologies is times lower than the global price. Setting up its own shale gas production also effectively provided US energy independence of imported natural gas. In China, considerable deposits of shale gas have been explored as well and its extraction has begun. In the opinion of prof. Xiaoyong, China, as well as the United States, has good prospects for extracting this type of fuel. In particular, this may result in a reduction in the volume of imported natural gas and an overall decrease in the gas price.

Represented in the work by Prof. X. Xiaoyong, an analysis of the prospects for the introduction of gasyuan is sufficiently reasoned. Author provides economic facts and arguments on this project's prospects. In his opinion, the economic benefits from the introduction of gasyuan are obvious - both for China and for the rest of the region. Because, although the gas pipeline project is primarily aimed at solving China's energy problems, but, given their global context, as well as the creation of a regional gas trading center, the redistribution of gas flows, and the strengthening of the role of the Chinese yuan in international settlement and credit operations, one can assert that the project acquires a global importance.

Additional prospects of this project are related to China's growing role in global governance and international development via the launch of the One Belt, One Road (OBOR) Global Initiative, aimed at strengthening the links between individual countries, regions and continents, maintaining the open global economic system, and attaining a diversified, balanced and sustainable development. Prof. Xiaoyong notes that the OBOR Initiative involves such oil and gas rich countries as those of Central, Southeast and South Asia, as well as Russia. At the same time, China is the largest consumer of natural gas.

Thus, the OBOR Initiative opens up wide opportunities for diverse cooperation in the trade in goods and services. It also offers great prospects for cooperation in the energy sector. If the investments in gas production and gas trading will be car-



ried out in gasyuan, then the Chinese yuan will go abroad. In turn, foreign investors will buy Chinese goods and services, paying for them in Chinese yuan, in so doing making the yuan return to China. It is beneficial to the gas exporting countries and would also raise the use of gasyuan in gas pricing and settlements<sup>4</sup>.

In countries located along the OBOR Initiative, with the active participation of Chinese enterprises and development banks, infrastructure and energy projects are being implemented. For the financial support of these projects, the Asian Infrastructure Investment Bank and the Silk Road Foundation were created. An increase in observed in the trade between the participating countries and in the volume of mutual investments. Considering also that China has been actively promoting the idea of "green" development along new geo-economic corridors, the demand for gas, which is considered the most economical and environmentally friendly type of fuel, will be naturally increasing. This will make even more urgent the introduction of gasyuan as a currency for gas trade, gas pricing and gas contracts.

Therefore, the role of the Chinese yuan will grow not only at the regional level, but also in the global monetary and financial system as a whole. The 2017 report by the People's Bank of China, on "Internationalization of the yuan", emphasizes that the role of the Chinese yuan in the global economy is expanding, and the volume of foreign investments denominated in Chinese yuan is increasing. Already 60 countries keep a share of their forex reserves in Chinese yuan<sup>5</sup>. The gasyuan project can change the global monetary and financial system and is expected to make it and the global economy as a whole more stable and predictable.

For Ukraine, the book by Chinese scientist Huang Xiaoyong "Gasyuan" is of both scientific and practical interest. Ukraine, like China, has significant coal reserves, but depends on the import of gas and oil. The issues of gas supply, and the corresponding pricing and payment mechanism are extremely relevant for our country. And in this sense, the modern Chinese experience and scientific exploration are certainly worthy of attention.

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<sup>4</sup> 天然气人民币 / 黄晓勇等着。 – 北京：社会学文献出版社，2018. P. 189.

<sup>5</sup> 天天然气人民币 / 黄晓勇等着。 – 北京：社会学文献出版社，2018. P. 97.