Научно-практический журнал Scientific and practice-oriented journal

ГИПОТЕЗА HYPOTHESIS

№4 (5) №4 (5)

ДЕКАБРЬ 2018 DECEMBER 2018

Главный редактор

А.Е. Карлик, д-р экон. наук, профессор

Учредитель и издатель

Фонд поддержки международного делового сотрудничества

«ФОНД МЕЖДУНАРОДНЫХ ИННОВАЦИОННЫХ ПРОГРАММ»

191144, Санкт-Петербург, ул. Мытнинская, д.12

Журнал издается при поддержке

Федерального государственного бюджетного

образовательного учреждения высшего образования

«Санкт-Петербургский государственный экономический университет» (СПбГЭУ)

Журнал является победителем Конкурса

«Лучший молодежный проект Санкт-Петербурга 2017 года»

и обладателем почетной премии

Правительства Санкт-Петербурга

Редакция журнала

191023 г. Санкт-Петербург, ул. Садовая, д. 21 (СПбГЭУ)

Журнал «Гипотеза / Hypothesis» издается с декабря 2017 года. Выходит 1 раз в квартал

Распространяется бесплатно.

Свидетельство о регистрации средства массовой информации ПИ № ФС 77 -72207 от 24.01.2018 г.

ISSN (Print): 2619-1547 ISSN (Online): 2619-1555

Выпуск журнала гипотеза № 4(5) 2018 содержит статьи в авторской редакции.

The 4 (5) 2018 issue of the Hypothesis journal contains articles in the author's edition.

Editorial office

Cover design: **Denisov Rjurik**
Issue managers №4 (5) 2018: **Gazul Stanislav, Stepanov Stanislav**
Journal site: http://hypothesis-journal.ru/
E-mail: journal.hypothesis@gmail.com

INTRODUCTORY NOTE TO THE FIFTH ISSUE

Dear colleagues and friends! We are glad to present you the fifth issue of the scientific and practical journal "Hypothesis". Our journal is positioned as a communication “platform” where young scientists and specialists get the opportunity to share the results of their scientific research, as well as receive feedback from the scientific community. We are accepting for publication the articles on various sciences: from computer science to linguistics.

The major topic of our fifth issue the development of the Russian-Chinese relations. The relationship between the member countries of the Eurasian Economic Union and the People's Republic of China, as well as the prospects for these relationships, are considered in the current issue. Author of the papers are the participants of the VIII Forum of leading economists of Russia and China "Russian and Chinese Economics: Interregional Cooperation" organized by St. Petersburg State University of Economics and Renmin University of China.

It is not just an accident that relations between the Russian Federation and China are in the spotlight. Modern challenges on the way of social and economic development of the Russian Federation and China require new innovative solutions. The articles of the fifth issue focus on the search of these solutions and approach. The following discussion in the scientific community will allow to concretize them in practice, in order to strengthen the socio-economic development in the Russian Federation and China.

Best regards,
Chief Editor
Alexander Karlik
Doctor of Economics, professor,
Honored Scientist of the Russian Federation

CONTENTS OF THE ISSUE

УДК 334.726

C. Zhang
Postdoctoral student
School of Economics, Renmin University of China

TRADE COOPERATION BETWEEN RUSSIA AND CHINA UNDER THE ONE BELT AND ONE ROAD INITIATIVE

Abstract: This paper examines the characteristics and patterns of trade between China and Russia by calculating RCA index and complementarity index using the relative trade data from 2008 to 2017. The results show that Russia has the comparative advantage in energy field while China gain the comparative advantage in manufactured goods as well as machinery and transport equipment. The economic and trade cooperation between China and Russia has a significant and far-reaching impact on both side's economic development, under the background of One Belt And One Road, China and Russia should actively cooperate on relevant industries.
Key words: Transboundary Trade; One belt and One Road; RCA; Complementarity

1.Introduction

Russia and China, as two superpowers in the world, the bilateral relations between two countries, especially economic and trade relations, will not only affect the economic and social development of both two countries, but also affect the economic prosperity in central Asia and the world. In recent years, economic and trade cooperation between two countries has achieved certain development, however, there are still further room to expand compared with the economic size of China and Russia.

2013, China's president Xi Jinping spoke in Kazakhstan's capital Astana at Nazarbayev University about the concept of building Economic Belt Silk Road. The new Silk Road, which is based on "win-win" principle, aims to cooperate different countries. This new background brings new opportunities for the development of bilateral cooperation between Russia and China.

Current applied researches make comprehensive analyses of the development, current situation and prospect of the trade between Russia and China. Trenin [3] argues that there are many area of energy trade and economic cooperation between two countries by making a comprehensive analysis of the international situation. Armijo[1] argues that China's energy demand urgency, prompting China to take natural resources to lease and with oil-producing countries to sign long-term supply contracts. Malle [2] believes that Political and economic rapprochement is taking place between Russia and China in a number of fields, such as energy, arms production, trade in national currencies and strategic projects in transport and supporting infrastructure. Mou [3] based on the analysis of the current trade situation between China and Russia, proposed to explore the high-level trade in goods, further adjust the trade structure and further strengthen policy communication. Yuan [6] argues the trade between China and Russia is highly complementary. Yao [5] think that China and Russia energy cooperation has huge space to improve because the good development of Sino-Russian energy-industry collaboration has a convenient, short distance, low cost, resource potential and other many advantages.

In summary, the existing papers take more attention to the necessity and possibility of cooperation, and particularly focus on the energy field. Undoubtedly, there is huge room for cooperation in the energy field, Russia is a huge energy exporter, its crude oil and natural gas production accounted for the world total output of 12%and 22% [2], but how strong is the complementarity in the energy field? And are there some other areas have potential for cooperation? In order to find the answers to these question, this paper conducted an empirical analysis of the trade structure between Russia and China, and then analyzed how to further expand economic and trade cooperation under the existing trade situation. The remainder of the paper is organized as follows: Section II retrospects the development of the trade between China and Russia; Section III conducts an empirical analysis. By using the data related to the trade between China and Russia,

the revealed comparative advantage index and the trade complementarity index are respectively calculated; Section IV introduces some thoughts about what should we do under the “One Belt and One Road” strategy; The conclusions are reported in Section V.

2.The development of the trade between China and Russia

Trade between Russia and China remained subdued for long time despite two-digit growth in China after entry into the WTO and robust growth in Russia. Obviously, for decades before and after transformation to market in both countries the economic cooperation between geographically contiguous Russia and China have been lagging behind commercial ties with the rest of the world.

There are a lot of studies on Sino-Russia trade in the 1990s and the early 21st century, this paper focuses on the changes after 2008. Figure 1 reports the bilateral trade volume between China and Russia. Despite the decline in bilateral trade in 2008 as a result of the financial crisis, the status of each country to another has been further strengthened, and from 2008 China became the first trade partner for Russia replacing Germany [2]. In 2010, Russia and China signed 15 agreements on bilateral political cooperation and established a strategic partnership. Economic cooperation, trade cooperation and energy cooperation have promoted the further development of two countries’ relations, and bilateral trade between the two countries has grown rapidly.

After 2013, One Belt One Road initiative brings new opportunities for both Russia and China, the two sides have further made progress in building facilities and channels. In transport infrastructure construction, October 2014, prime ministers of two countries signed the memorandum of high-speed cooperation, Both sides have developed many direct or multilateral international freight routes, such as railways, highways and airlines. In terms of energy transportation, the Sino-Russian natural gas pipeline east-china section was officially started in June 2015. In December 2015, CNPC and Gazprom signed the agreement on the design and construction of natural gas pipeline project, which further promoted the construction of the east-china pipeline. All these development affects positively to the economic potential of the two countries. But one thing worth to note is that, since the "One Belt And One Road" initiative was proposed, after a brief soar in 2014, however the annual average of trade volume of 2015 and 2016 was lower than the scale of the previous year before the initiative was launched, and the bilateral trade volume between China and Russia has not increased significantly. There are two possible reasons for this phenomenon, on the one hand, the time frame for the policy unveiling is short, it takes time for a policy to achieve its anticipated results, on the other hand, exogenous factors - such as the worldwide economic slowdown and relative price shocks have an impact.

In 2017, bilateral trade volume again increased significantly, according to the data released by the Commerce Department of China, the total trade volume between Russia and China rose 31.5% to $86.96 billion. Russia's exports to China rose by 38.9 percent to $38.92 billion, accounting for 10.9 percent of Russia's total exports. Imports from China rose 26.1 percent to $48.04 billion, accounting for 21.2 percent of Russia's total imports.

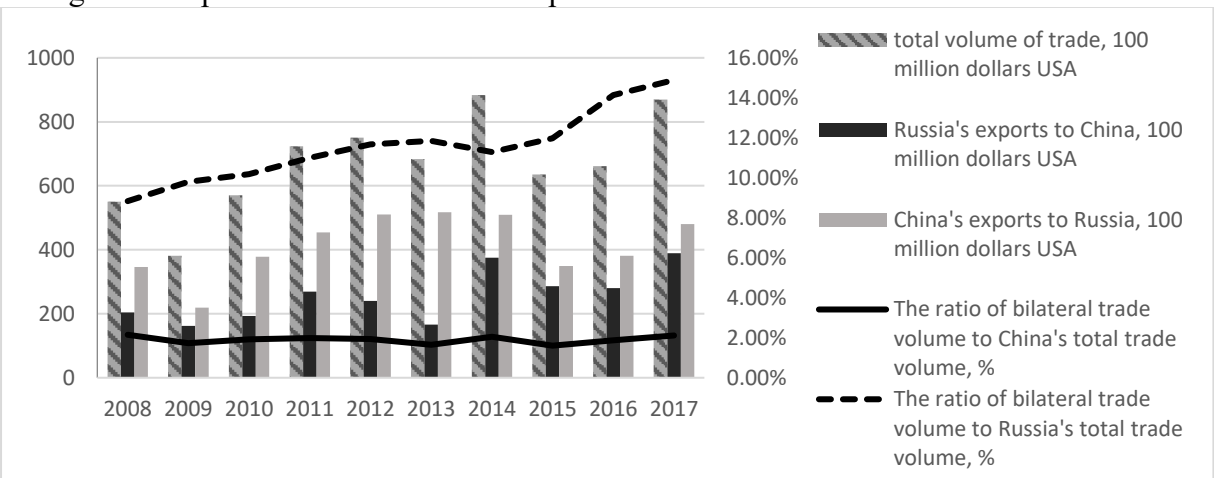


Figure 1. Bilateral trade volume between China and Russia

3. The empirical analysis

This part makes an empirical analysis of the trade between China and Russia by calculating the indicators of comparative advantage and trade complementarity index. The relative data is gathered from UN comtrade database in 2008-2017.

We use the RCA index to analyze the comparative advantage of Russia and China. The formula (1) is as follows:

$$RCA_k = (X_k / X_t)/(W_k / W_t) \quad (1)$$

Where RCA_k represents the comparative advantage index of the goods k in a country, X_k represents the export volume of goods k, X_t represents the total export volume of all products, W_k *and* W_t respectively represents the export volume and the total export volume of goods k in the world. If $0 < RCA_k < 1$, it means that a country's commodity k has comparative disadvantage, and the smaller the value, the more obvious the comparative disadvantage; If $RCA_k > 1$, it means that commodity has comparative advantage, and the higher the value, the more obvious comparative advantage. According to the United Nations standard classification of international trade (SITC), goods are divided into 10 categories. Table 1 reports the classification details of SITC(Rev.3) classification standards, and Table 2 and Table 3 respectively show the comparative advantage index of two countries in this standard.

Table 1. SITC(Rev.3) classification standards

classification	Content
0	Food and live animals
1	Beverages and tobacco
2	Crude materials, inedible, except fuels
3	Mineral fuels, lubricants and related materials
4	Animal and vegetable oils, fats and waxes
5	Chemicals and related products, n.e.s.
6	Manufactured goods classified chiefly by material
7	Machinery and transport equipment
8	Miscellaneous manufactured articles
9	Commodities and transactions not classified elsewhere in the SITC

Table 2. RCA index of Russia

year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
0	0.27	0.41	0.28	0.32	0.43	0.40	0.49	0.59	0.70	0.69
1	0.25	0.30	0.20	0.19	0.28	0.30	0.33	0.40	0.44	0.33
2	1.02	0.89	0.78	0.77	0.79	0.78	0.86	1.03	1.25	1.13
3	3.98	4.69	4.37	3.90	4.16	4.22	4.56	6.16	5.45	6.57
4	0.31	0.50	0.28	0.31	0.67	0.73	0.82	0.96	1.31	1.12
5	0.46	0.36	0.37	0.39	0.44	0.42	0.44	0.52	0.49	0.45
6	0.88	0.98	0.87	0.76	0.89	0.84	0.85	1.00	1.19	1.14
7	0.10	0.11	0.08	0.07	0.11	0.12	0.12	0.15	0.14	0.14
8	0.06	0.07	0.05	0.04	0.08	0.10	0.11	0.13	0.10	0.11
9	1.82	1.74	2.08	2.14	0.62	0.62	0.60	0.62	2.60	0.99

Table 3. RCA index of China

year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
0	0.44	0.44	0.46	0.47	0.44	0.43	0.41	0.41	0.44	0.43
1	0.14	0.16	0.16	0.16	0.16	0.15	0.15	0.17	0.19	0.17
2	0.23	0.20	0.18	0.18	0.17	0.17	0.18	0.18	0.18	0.16
3	0.13	0.13	0.11	0.10	0.09	0.09	0.10	0.12	0.15	0.17
4	0.07	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.05	0.06
5	0.53	0.45	0.50	0.56	0.52	0.51	0.53	0.51	0.52	0.54
6	1.34	1.22	1.23	1.30	1.32	1.35	1.38	1.37	1.36	1.30
7	1.37	1.44	1.45	1.47	1.44	1.44	1.35	1.28	1.26	1.26
8	2.26	2.14	2.19	2.29	2.36	2.35	2.26	2.02	1.99	1.96
9	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.04	0.05

Comparing table 2 and table 3, China and Russia both do not have competitive advantages in category 0, 1 and 5. Products of China's competitive advantage is mainly the category 6, 7 and 8, Russia has the comparative advantage of category 2, 3 and 6, from which competitive advantage of category 3 (Mineral fuels, lubricants and related materials) is huge.

The RCA index analyses a country's comparative advantage over the world, so what about trade complementarity between China and Russia? The trade complementarity index is used to indicate the degree of consistency between a country's exports and the import of another trading partner, which can reflect the complementarity of the trade structure of the two countries and the potential of trade between the two countries. The formula (2) is as follows:

$$C_{ij}^{k} = RCA_{xi}^{k} * RCA_{mj}^{k} \quad (2)$$

Where C_{ij}^{k} indicates the trade complementarity index of country *i* and country *j* on product *k*. $RCA_{xi}^{k} = (X_i^k / X_i)/(X_w^k / X_w)$, $RCA_{mj}^{k} = (M_j^k / M_j)/(M_w^k / M_w)$. RCA_{xi}^{k} and RCA_{mj}^{k} respectively represents the comparative advantage index in country *i* and the comparative disadvantage index in country *j* on the goods *k.* The larger the index of C_{ij}^{k}, the greater the consistency between the export of country *i* and the import of country *j*. Table 4 and Table 5 respectively show the trade complementarity index of two countries.

Table 4. Trade complementarity index (Russia as an exporter)

year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
0	0.06	0.10	0.08	0.09	0.15	0.15	0.19	0.28	0.33	0.31
1	0.06	0.07	0.05	0.05	0.09	0.09	0.11	0.17	0.19	0.14
2	4.27	3.67	2.93	2.93	2.89	2.93	3.17	3.72	4.59	4.12
3	3.60	4.29	3.94	3.59	4.24	4.08	4.84	7.14	7.00	9.91
4	0.53	0.74	0.35	0.34	0.83	0.79	0.76	0.88	1.10	0.86
5	0.46	0.35	0.36	0.38	0.41	0.39	0.40	0.48	0.45	0.41
6	0.60	0.83	0.64	0.50	0.58	0.53	0.61	0.64	0.74	0.68
7	0.11	0.13	0.09	0.08	0.12	0.14	0.13	0.16	0.15	0.15
8	0.05	0.05	0.04	0.03	0.06	0.06	0.06	0.08	0.06	0.06
9	0.16	0.10	0.53	1.20	0.43	0.58	0.52	0.55	2.02	0.76

Table 5. Trade complementarity index (China as an exporter)

year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
0	0.80	0.94	0.96	0.84	0.79	0.79	0.74	0.70	0.67	0.61
1	0.28	0.31	0.31	0.29	0.29	0.28	0.29	0.33	0.36	0.30
2	0.19	0.17	0.10	0.09	0.12	0.12	0.15	0.20	0.19	0.15
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02
4	0.10	0.08	0.06	0.05	0.04	0.05	0.05	0.06	0.06	0.05
5	0.52	0.52	0.59	0.61	0.60	0.62	0.65	0.69	0.69	0.66
6	1.13	1.12	1.14	1.17	1.39	1.42	1.40	1.34	1.30	1.23
7	1.91	1.56	1.66	1.91	2.07	1.99	1.77	1.47	1.38	1.52
8	1.96	1.89	2.21	2.17	2.52	2.57	2.38	1.88	1.82	1.84
9	0.03	0.03	0.03	0.04	0.00	0.00	0.00	0.00	0.03	0.01

Table 4 reports the complementarities index with Russia as an exporter and China as the importer, from the table we can see that category 2 and 3 have strong complementarities. One of the things that's really remarkable in this table is that index of category 3 has grown very rapidly in recent years from 3.60 in 2008 to 9.91 in 2017, and category 3 mainly concludes coal, petroleum and gas, this suggests that Russia, as a country rich in energy resources, has high complementarities with China, a country has huge energy needs. When China is an exporter and Russia is an importer (can be seen from table 5), while that index numbers have fluctuated in recent years, complementarities remain in the category 6, 7and 8.

According to the results of empirical analysis, from the actual situation of China, labor-intensive products, such as SITC6 and SITC8, and some technology-intensive products, mainly including SITC7, have relatively strong comparative advantage.The products with a strong comparative advantage in Russia are mainly SITC2 and SITC3. On the whole, Russia and China have their own products with comparative advantages, and there is a strong trade complementarity between two countries.

4. Thoughts on deepening trade cooperation

Based on the above analysis, we find that the commodities which have comparative advantage of Russia and China are different, and the trade complementarity between the two countries is strong. Russia have a huge advantage in the energy field, and in the field of manufactured goods and transport equipment, China has comparative advantage. At present, the external situation of the world is still complicated, so the strengthening of Chinese-Russian cooperation has important theoretical and practical significance, and we should give full play to both sides' advantages, expand the space and pay attention to the economic development brought about by our trade cooperation.

In terms of deepening energy cooperation in the new situation, the two sides can proceed from the following aspects: jointly invest and develop technologies; coordinate China-Russia energy cooperation in upstream and downstream industries; bind the interests of both sides together, enhance the stability and upgrade the level of energy cooperation; attach importance to the innovation of cooperation modes in the energy field, such as financing methods and channels, trade settlement methods and so on, so as to meet the practical demands in energy field between two countries.

China has more experience and advantages in machinery and equipment export and infrastructure construction, China and Russia should take advantage of the "One Belt and One Road" initiative to actively carry out cooperation in information and communication, high-speed railway, cross-border bridge and other infrastructure construction, especially in the field of high-speed railway construction, so as to remove most of the traffic restrictions on manufacturing, retail

as well as in the social sphere.

In addition, two countries will further adjust the structure of trade and raise the level of economic and trade cooperation. At present, the bilateral trade between Russia and China is still dominated by secondary industry. Both China and Russia are in the period of domestic industrial structure adjustment, which is a good opportunity to improve the trade structure of bilateral commodities.

5. Conclusion

The objective of the "One Belt And One Road" strategy is to greatly reduce trade costs by the construction of infrastructure interconnectivity and the convenient transportation, so as to promote the free flow of factors of production, give full play to countries which have different comparative advantages, and then achieve efficient allocation of resources.

This research involved analysis of the current trade situation between Russia and China, then calculated the RCA index and complementarity index of both countries, the result shows that Russia and China are highly complementary in trade, especially in the energy field. In the current international situation, the two sides should adhere to the principle of equal consultation, seek common ground while reserving differences, and take full use of the opportunities brought by "One Belt And One Road" strategy, so as to promote the development of bilateral economic and trade cooperation and ultimately achieve mutual benefit and win-win results.

References

1. L. E. Armijo, The BRICS Countries as Analytical Category: Mirage or Insight? Asian Respective, (4), 7-42 (2007)
2. Silvana Malle, Russia and China in the 21th century. Moving towards cooperative behaviour, Journal of Eurasian Studies,(8),136-150(2017)
3. M.Y. Mou, China-Russia Economic and Trade Cooperation under The Belt and Road Initiative: Present Situation, Problems and Suggestions,(1),56-66(2018)
4. D. Trenin, Russia Leaves the West. Foreigh Affairs, (4), 1-87 (2006)
5. H. Yao, Sino-Russian energy cooperation: status, obstacles and counter measures research. Heilongjiang foreign economy and trade, (2),36-50 (2011)
6. X.L. Yuan, On the selection and countermeasures of Sino-Russian trade development on the background of the Belt and Road Initiative, Journal of Qingdao University of Science and Technology,(4),13-21(2017

UDC 339.942

E.U. Sizykh
PhD student
Senior Lecturer, Department of Language Training,
Baikal State University
trusova.lena@gmail.com

MODERN REGIONAL LEVEL TOOLS OF RUSSIAN-CHINESE INVESTMENT COOPERATION

Abstract: Investment cooperation is considered to be one of the most important part of Russian-Chinese strategic partnership. The potential of bilateral investment cooperation is largely revealed at the regional level. This paper attempts to identify the specifics of bilateral investment cooperation by investigating the study of various regional level tools, thereby to reveal the motivations of Chinese investors, which determine their particular choice.

Keywords: Russia, China, investment cooperation, foreign direct investment, priority development zones, foreign trade and economic development zones

Foreign direct investments (FDI) is one of the main ways of deep integration into the system of international division of labor as well as engaging the country into the global value chains. Successfully implementing the "Go out" policy, for the past 15 years China has been maintaining significant growth rates of FDI exports and has gradually increased its share in the global structure. In 2016, the volume of exports of FDI by China reached $ 196.15 billion, compared to 2002 – the year when Chinese statistical accounted system of FDI has been created - the increase in Chinese FDI reached 7260% (Fig. 1). In 2014-2016, Chinese investments were mainly flowed to the following sectors (fig.2).

Figure 1. Outward FDI from China in 2002-2016, billion dollars
Source: complied from [6]

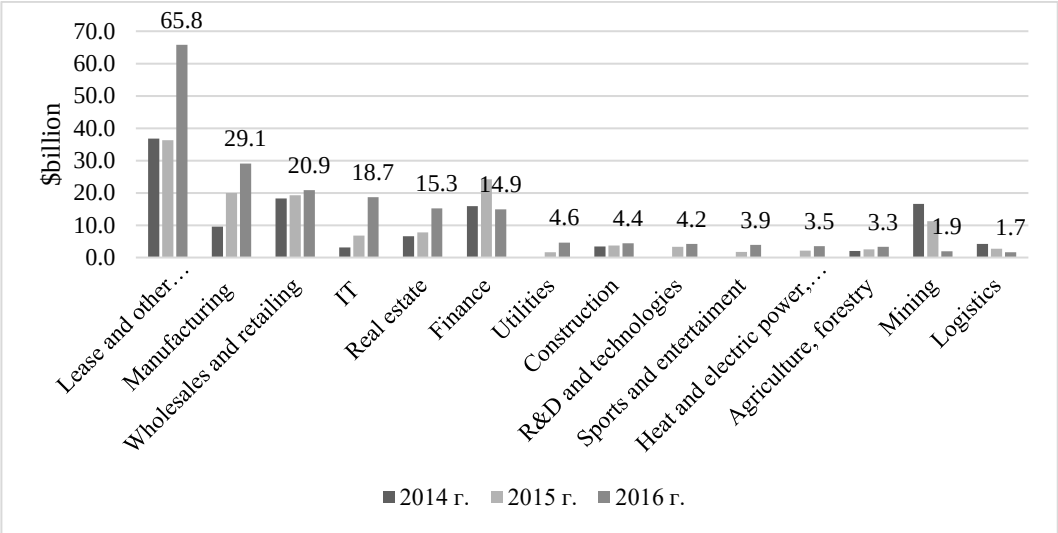


Figure 2. Outward FDI from China in 2014-2016 by sectors, billion dollars
Source: complied from [6]

Nowadays, Russian-Chinese relations are going through the most favorable period ever. This phenomenon greatly stimulates the research of various aspects of interaction between Russia and China, including its investment component as one of the priority areas of bilateral trade and economic cooperation.

According to Chinese statistics, the volume of Chinese FDI in Russian economy totaled about $ 13 billion in 2016, that allowed Russia to become the third main recipient country of Chinese investment in Europe (second to the Netherlands and the United Kingdom). However, the amount of FDI to Russia is still not as high as desired. As we can see in the table 1, China has become one of the leaders in the number of FDI projects it finances in Russia just recently. Along with the development of Chinese investments in Russian economy, a lot of quastions may occur: what factors impede the development of bilateral investment cooperation, what is the investment strategy of China in Russia, how it correlates with it's overall investment strategy etc.

Table 1. TOP-10 FDI donor countries in Russia and the number of projects funded by them

	2010	2011	2012	2013	2014	2015	2016	2017
China	3	3	0	4	7	12	9	32
Germany	26	13	28	12	11	36	43	28
USA	24	24	29	24	14	29	38	19
Italy	6	6	5	2	4	12	7	17
Japan	11	6	9	14	8	10	12	17
South Korea	4	0	1	1	3	3	2	12
France	10	9	14	7	14	20	20	11
Switzerland	11	4	3	4	8	8	7	11
The UK	14	4	2	3	6	5	2	8
France	8	6	5	5	6	9	7	7

Source: complied from [4]

Resent researches offer several points of view regarding the factors that determine the scope of Chinese investments in Russia. Due to one of them, China's FDI strategies in developed and developing countries varies. In the first group of countries, Chinese investments are being attracted by the developed service sector, as well as access to high technologies sector, and in the second group - by mineral resources [1]. A.Novopashina proves that the placement of direct investments in primary industries occurs mainly in the regions of Russia bordering with China, which in fact makes its production an object of future foreign trade. The author claims that the placement of

Chinese FDI in Russia is explained by the size of the market in the host region and their territorial proximity to China, the availability and amount of natural resources did not give the regions a comparative advantage in attracting direct Chinese investments [2]. V. Ovchinnikov rejects the hypothesis that Chinese investors are guided by the factors of investment attractiveness of the region when they choose a location for placement of their capital [3]. Thus, we can see that the research of the of Chinese investors motivations can lead to rather conflicting results. However, most studies of the issue are based on sectoral or regional analysis. In this paper, the author makes an attempt to analyze the Russian-Chinese investment cooperation from institutional positions, stressing the regional level tools.

The main instruments of Russian-Chinese investment cooperation at the regional level include:

1. Investment funds for regional development;
2. Mechanisms within the federal programs for the regional development (The Program of Cooperation Between Russian Far East and Eastern Siberia and Chinese North-Eastern Regions (2009-2018));
3. Intergovernmental commissions (the intergovernmental Russian-Chinese commission on cooperation and development of the Far East and the Baikal region of Russia and the Northeast of China).
4. Instruments of the “Go out” policy of Chinese companies (Foreign territories of trade and economic cooperation);
5. Specific tools for the regional development in Russia: Special economic zones, territories of advanced development, industrial parks, tourism clusters;

Foreign zone of trade and economic cooperation (FZ) is a kind of foreign platform for implementing the “Going Out” strategy of Chinese enterprises, as well as the most important tool for China to promote the “One Belt, One Way” initiative, FZ is aiming in stimulating international cooperation in industrial capacity and production equipment sphere. In other words, FZ is an industrial complex, registered in China and creating a separate legal entity with Chinese capital abroad.

The intention of the FZ construction was firstly announced by the, Chairman of the People's Republic of China of that time, Hu Jintao, at the China-Africa Cooperation Forum in November 2006. The implement was caused by the need to stimulate international cooperation in the field of production capacity, optimize the distribution and coordination of all parts of the production chains of Chinese enterprises abroad.

The rapid growth of FZ activity (table 2) became possible due to the collective effect within the development zone itself, as well as significant support from the Chinese government. Through the FZ channel, the threshold for entry into the international market is significantly reduced, of Chinese companies are able to avoid the influence of trade barriers and disputes, which very often affect Chinese companies.

Table 2. 2015-2017 FZ development results

Indicator	**2015 г.**	**2016 г.**	**2017 г.**
Host countries	-	36	44
Nyt number of FZ	75	77	99
Total investments (billion dollars)	7,05	24,19	30,7
Participating companies	1209	1522	4364
Output value (billion dollars)	42,1	70,3	-
Payments to the state treasury of the host country (billion dollars)	1,42	2,67	2,42
Created jobs for local population	-	212	258

Source: complied by author

In addition, Chinese enterprises receive another advantage in the form of geographic concentration of production. Cluster type of FZ involves the creation of complete production chains in sufficient geographical proximity to each other, which allows fully realize the scale effect.

Recent intensification in the construction and further development of the FZ made it necessary to improve the legal for their activities. In 2015, the Ministry of Commerce together with the Ministry of Finance of the PRC issued “Methods for assessing foreign zones of trade and economic cooperation”.

As the main regulation in this area, the document approved 5 categories of FZ that can claim prior support from the government: an industrial park in the manufacturing sector, an industrial park for the development of natural resources, an agro-industrial industrial park, a trade and logistics industrial park, as well as an industrial research type park. In addition, the document tightened the evaluation criteria, both for existing FZ and for just applying enterprises. According to 2017 statistics data, only 20 of the FZ received the status “government supported state-level FZ”, four of them are located in Russia (table 3).

Table 3. Foreign zones of trade and economic cooperation in Russia

Overseas business cooperation zone	Location	Chinese partner	Leading industries
Ussuri zone of trade and economic development (2006)	Primorskiy Kray (Far Eastern federal district)	Kangji international investment company ltd (Heilongjiang province)	Light industry, electromechanics, woodworking, leather goods, furniture, building materials, etc.
Tomsk Russian-Chinese timber industry cluster (2008)	Tomsk region (Siberian federal district)	Avic forestry (Shandong province)	Lumber, plywood, fiberboard, MDF and other timber processing
Russian-Chinese agro-industrial cluster (2014)	Primorskiy Kray (Far Eastern federal district)	Dongninghuaxin economic and trade co.,ltd (Heilongjiang province)	Grain crops production and storage, related warehouse, transport, trade services
Russian-chinese zone of trade and economic development «Longyue» (2013 г.)	Еврейская автономная область (ДФО)	Longyue trade and economic company ltd/ (Хэйлунцзян)	Development of forest resources, logging, primary woodworking

Source: complied by author

The main instruments for attracting investments into the regions of Russia are special economic zones (SEZ) and priority development areas (PDA), both of them are using Chinese FDI. Residents of the Far Eastern priority development areas with the participation of Chinese capital are implementing more than 30 projects worth about $ 4.2 billion, which is about 7% of all investments in the region.

In addition, in March 2016, the Chinese company "Tianyi" signed an agreement on the implementation of a joint project with the resident of the special economic zone "Baikal Harbor" LLC "Interra". Some of the comparative characteristics of ADT and SEZ instruments are presented in table 4.

Table 4. Comparison of special economic zones and priority development area in Russia

	ADT	**SEZ**
Validity period	70 years (may be extensed)	49 years
exploitation of mineral resources, excisable goods production	Allowed	Forbidden (with exceptions for car and motorcycle manufacturing)
Development target	Far East development	Prior industries development
Income tax	0% - 12%	2-15.5%
National insurance contributions	7.6%	28-30%
Customs duties and fees	collected	0%
Total number	19 ADT in the Far East region, 63 – in single-industry cities	26 SEZ
Chinese capital participation	6 ADT, 30 projects with a total value of 4.2 billion dollars. 1. Kangalasy (Industrial Park), Republic of Sakha (Yakutia), 2015 2. Priamurskaya (manufacturing, transport and logistics), Amur region, 2015 3. Khabarovsk (manufacturing, transport and logistics), Khabarovsk Territory, 2015 4. Amur-Hinganskaya (light and food industries, tourism and recreation), Jewish Autonomous Region, 2016 5. Nadezhdinskaya (light and food industries, transport and logistics), Primorsky Krai, 2015 6. Free port “Vladivostok”, 2015	4 SEZ, total investment $ 132 million 1. "Sirius solar technology" (SEZ "Alabuga"), Amur Sirius (production of solar cells); 2. ABC Steel (SEZ Alabuga), Shandong Yuanda Steel Science & Technology LTD (production of galvanized steel and products with a polymer coating); 3."Lifan Cars Rus" (SEZ "Lipetsk") LIFAN Industry group (automotive).

Source: complied by author

Thus, after many years of negotiations and declaring intentions of further intensifing Russian-Chinese investment cooperation, we can talk about small advances in this area. Analyzing regional tools, we partially confirmed the hypothesis of the regional and industrial distribution of Chinese investments: the SEZ tool is attractive for Chinese companies producing goods with higher value added. The SEZ with the participation of Chinese capital is located in the European part of Russia - a region with a relatively developed infrastructure and rather large domestic market. FZ and ADT that basically located in low-populated but rich in resources areas, are attractive for Chinese investors as manufacturing bases of the Chinese enterprises abroad. ADT tool became popular among investors, as it can meet their needs: investors received the advantages (a special tax regime, attraction of foreign labor without quotas, provision of land, the possibility of applying the procedure of a free customs zone) that were able to level the shortcoming of the relatively undeveloped infrastructure in the region. According to the author, in view of the insufficiently large experience of cooperation, as statistical information is accumulated, it is advisable to develop empirical studies of factors influencing the placement of Chinese capital within the framework of a particular instrument using mathematical and statistical tools, as well as to evaluate the possible benefits and risks for both parties.

References:

1. Горбунова М. Л., Пчелинцев А. Д., Овчинников В. Н. О некоторых особенностях поведения иностранных партнеров при инвестировании в экономику регионов Российской Федерации / М. Пчелинцев//Региональная экономика: теория и практика. – 2016. – №. 3 (426).

2. Новопашина А. Н. Региональное распределение иностранного капитала в России: пример прямых китайских инвестиций /А.Новопашина // Регионалистика. – 2015. – Т. 2. – №. 4.

3. Овчинников В. Н. " Эффект соседства" и мотивы китайских инвесторов при осуществлении прямых инвестиций в регионах России /В. Овчинников // Финансы и кредит. – 2017. – Т. 23. – №. 7 (727).

4. Ernst and Yong, Исследование инвестиционной привлекательности стран Европы, Россия. – E&Y, 2018.

5. United Nations Conference on Trade and Development. World Investment Report 2017: Investment and the Digital Economy. – UN, 2017.

6. 商务部. 中国对外投资合作发展报告 2017 //2017-09-22. – 2017.

УДК 339.5

E.A. Smirnova,
Doctor of Economics, Prof.,

D. Zhao
graduate student
St. Petersburg State University of Economics
St. Petersburg, Russian Federation
E-mail: smirnova-ea@list.ru

TRADE POLICY OF CHINA IN THE CONTEXT OF GLOBALIZATION

Abstract: the article deals with the peculiarities of China's trade policy based on the strategy of international economic expansion. The effectiveness of China's trade policy was confirmed by the 26th place in the world Bank's Logistics Performance Index (LPI). It is revealed that in order to further improve the value of the LPI it is necessary to improve the efficiency of customs operations.

Keywords: China's trade policy, strategy of international economic expansion, Logistics Performance Index (LPI), World Bank.

Features of the organization of China's trade policy in the context of globalization are determined by the policy based on the forced partnership between private business and the state. The result of this policy was the strategy of international economic expansion, which is manifested in China's active entry into all major world markets.

The effectiveness of trade policy in the form of international economic expansion is confirmed by high values in the world Bank's Logistics Performance Index (LPI). The world Bank's ranking of countries reflects the problems and identifies opportunities to increase the efficiency of logistics operations. Performance measurement is based on six indicators:

1. Customs-efficiency of the customs clearance process.
2. Infrastructure-the level of infrastructure development.
3. International shipments-organization of international transportation.
4. Logistics competence - quality of logistics services.
5. Tracking & tracing – the process of tracking the delivery of goods.
6. Timeliness-timely delivery of goods.

The Logistics Performance Index is updated every two years, starting in 2007. A comparative analysis of the values of these indicators for China for 2007-2018 is presented in the table.

Table - dynamics of the value of Logistics Performance Index LPI for 2007-2018 in China, in points, the best value of 5 points

Indicator	2007 y.	2010 y.	2012 y.	2014 y.	2016 y.	2018 y.
Place in the ranking of 160 countries	30	27	26	28	27	26
The logistics performance index, including:	3,32	3,49	3,52	3,53	3,66	3,61
Customs - efficiency of the customs clearance process	2,99	3,16	3,25	3,21	3,32	3,29
Infrastructure-level of infrastructure development	3,20	3,54	3,61	3,67	3,75	3,75
International shipments-organization of international transportation	3,31	3,31	3,46	3,50	3,70	3,54
Logistics competence - quality of logistics services	3,40	3,49	3,47	3,46	3,62	3,59
Tracking & tracing – the process of tracking the delivery of goods	3,37	3,55	3,52	3,50	3,68	3,65
Timeliness-timely delivery of goods	3,68	3,91	3,80	3,87	3,90	3,84

[compiled from data *World Bank lpi.worldbank.org*]

Figure 1 below shows the dynamics of China's ranking in the world Bank.

China reached the best values in terms of Logistics Performance Index in 2012 and 2018, taking 26th place in the ranking of 160 countries. At the same time, in 2007 China was only on the 30th place.

The values for each of the hotel indicators that form the Logistics Performance Index are shown in figure 2.

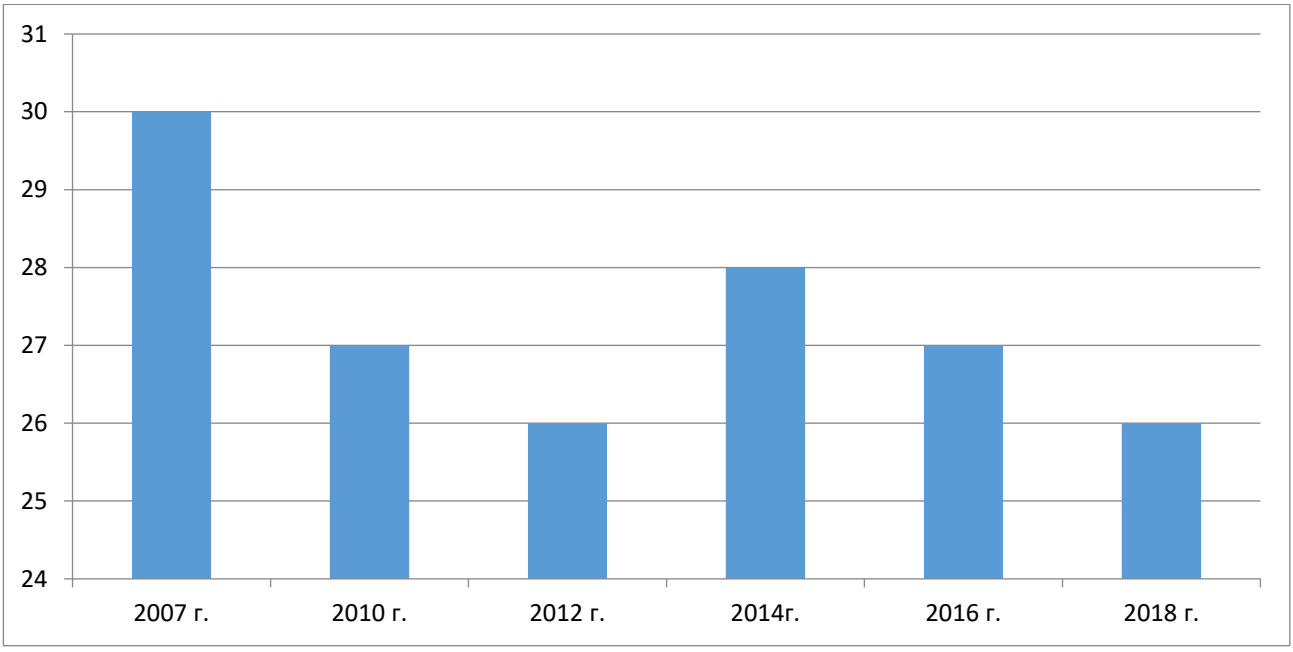


Figure 1-China's place in the Logistics Performance Index ranking in 2007-2018 [compiled from data *World Bank lpi.worldbank.org*]

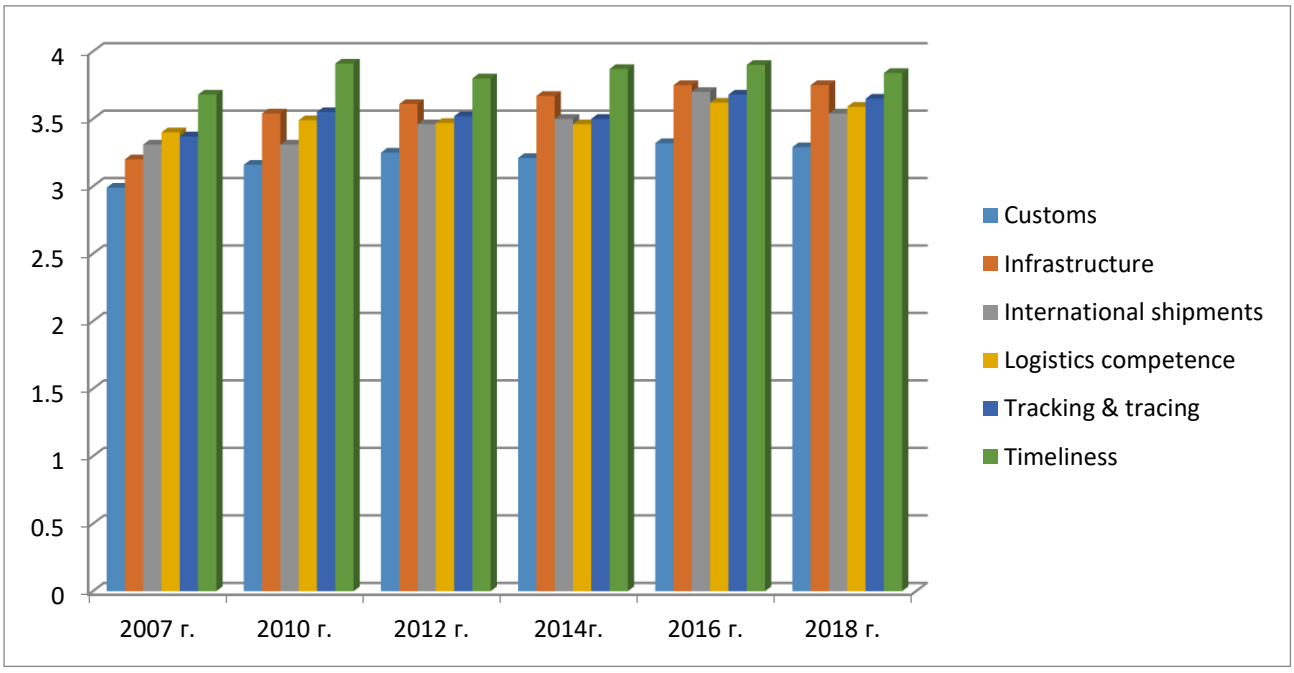


Figure 2-Dynamics of values of indicators forming Logistics Performance Index for China in 2007-2018, in points, the best value of 5 points [compiled from data *World Bank lpi.worldbank.org*]

Figure 2 shows that the best values for China in terms of Timeliness are the timeliness of cargo delivery (3.84 points); Infrastructure – the level of infrastructure development (3.75 points); Tracking & tracing – the process of tracking the delivery of goods (3.65 points). The worst values in China in terms of Customs - the effectiveness of the customs clearance process.

Thus, it can be concluded that in order to improve China's position in the world Bank rating, it is necessary to improve the efficiency of customs operations.

The most effective methods of international trade regulation are the methods of customs tariff and non-tariff regulation. The legal basis of the mechanism of customs tariff and non-tariff regulation are international legal treaties and agreements in the field of international trade and domestic foreign trade legislation of individual countries. Thus,"it is necessary to take into account both international legal norms established by various conventions and peculiarities of national legislations of the countries". [2, p. 68]

References:

1. Arenkov I. A., etc. the development Strategy of the instruments of Commerce]. – SPb.: St. Petersburg state University publ., 2010. - 348 c.
2. Smirnova E. A. features of the management of transboundary supply chains / Smirnova E. A. // Innovative activity. SGTU them. Gagarin. - 2014. - № 2.
3. Supply chain management / edited by V. V. Shcherbakov. - Moscow: yurayt publishing House, 2016. Ser. 58 Bachelor. Academic course (1st ed.)- 209 p.
4. International LPI [Electronic resource]. - Mode of access: https://lpi.worldbank.org/international
5. United Nations Conference on Trade and Development. World Investment Report 2017: Investment and the Digital Economy. – UN, 2017.

UDC 378:337.6

I.V. Medynskaia
Doctor of Economics, assistant professor
Professor of department of world economy and international economic relations,
Saint-Petersburg State University of Economics
irinamedyn@mail.ru

MODERN TRENDS OF SCIENTIFIC AND EDUCATIONAL COOPERATION OF THE GREAT EURASIA UNIVERSITIES

Abstract: The current stage of the world community evolution shows the priority importance of exporting educational services for the expansion of political, economic and cultural relations between the countries participating in Greater Eurasia. The article examines the problems and prospects for the development of international scientific and educational cooperation of the universities of Greater Eurasia in conditions of integration. The analysis of literature in the sphere of export of educational services and international scientific and educational cooperation of universities in Greater Eurasia made it possible to find a lack of special studies on this issue. The scientific hypothesis of this article is the assumption that the international scientific and educational cooperation of universities in Greater Eurasia brings a synergistic effect to the business structures and economies of the member countries of this integration association.
Keywords: Scientific and educational cooperation, export of educational services, integration, Greater Eurasia, universities, academic mobility.

The creation of a common educational space for the countries participating in Greater Eurasia is one of the most promising areas for the modern development of the world economy.

At present, the formation of interstate scientific-educational and business spaces has an ever-increasing influence on the state of international cooperation of universities in conditions of a demographic decline in the world's leading countries.

In this regard, scientific and educational networks and business alliances are formed between the participating countries of Greater Eurasia, which in the future will allow building approaches to a long-term cooperation strategy.

International cooperation and the exchange of experience have become a necessary means for distinguishing growing costs and reducing the risk of innovation, as well as for cumulating the necessary capacity of experience, skills and knowledge in the process of developing and introducing new educational services for foreign citizens. Synergies are actively developing with the universities of the member states of Greater Eurasia in the creation of network magistracy programs. Therefore, in these conditions, there is a need for strategic cooperation between specialized organizations that provide educational services for foreign citizens in order to share costs, reduce risks and to successful competition.

The formation of the scientific, educational and business space of Greater Eurasia requires the creation of a common market for educational services. A new approach to regulating the education services market should be aimed not only at resolving the problems that have arisen in connection with political instability in the world arena, but also in restoring the dynamic balance of supply and demand, increasing the flexibility of the market for educational services in Greater Eurasia and finding new opportunities to attract foreign citizens.

At the present stage of the evolution of the world economy, the successful development of the scientific and educational systems of Greater Eurasia should be connected with integration processes that allow achieving synergetic effects through the integration and coordination.

Scientific and educational integration in the countries of Greater Eurasia, qualitatively raises the level of openness of national economies, creates a single information space, and causes the intensification of the international technology flow.

The deepening of ties between the universities of the countries of Greater Eurasia is a key factor in the sustainable development of international relations and becomes an indispensable

condition for the development of both individual countries and the Eurasian integration process as a whole.

To integrate education, science and business within the framework of Greater Eurasia, there are a number of objective arguments - this is a single scientific and educational, business space and many aspects of socio-economic orientation.

At the beginning of the XXI century, in the countries of Greater Eurasia is concentrated almost 9/10 of the world's energy, about 3/4 of the world's GDP and 4/5 of the world's population. [1, p.3]

The processes of globalization and internationalization have an impact on the creation of the economic union of Greater Eurasia due to its special geographic, natural, strategic and economic situation and create it as a potential center of the world geopolitical system.

In China, the project of forming «Greater Eurasia» is considered as strengthening of Russia's influence within the framework of the expansion of the Eurasian Economic Union. "The Eurasian Economic Union is a mechanism of integration of the countries of the Commonwealth of Independent States, the former Soviet Union. China does not belong to the category of these countries. At the same time, Russia plays a central role, and even if China wants to join, Russia will not agree. On the other hand, Beijing pursues a policy of non-alignment with the blocs. Although the Eurasian Economic Union is an economic union, but at the same time there are some political overtones. "[8, p.2]

Thus, today Russia remains the regional center of an academic mobility for citizens from the countries of Greater Eurasia. The process of formation of interstate scientific and educational cooperation of universities of Greater Eurasia is conditioned, first of all, to the need to make education more adequate to modern economic requirements, the dynamics of labor market development.

The export of educational services in the space of the participating states of Greater Eurasia is more systematic and permanent, which is largely due to the presence of direct and explicit demand for Russian education. Academic mobility of foreign students and faculty is an integral part of the innovation process within the framework of the integration of Greater Eurasia, which can promote the development of networked academic technologies, new directions in the higher education process, and thus the expansion of the export of educational services.

The total number of foreign students in the Russian Federation in 2017 increased by 11.9% and amounted to 240,924 people, which follows from the report of the International Department and the Center for Sociological Research of the Ministry of Education and Science of Russia. Russian higher education is most in demand among citizens of Kazakhstan, the number of which is 27.5 thousand students, the citizens of China - 18.2 thousand people. (Table 1), Turkmen citizens - 12.1 thousand people, citizens of Tajikistan - 6.6 thousand people. The least number of foreign students are citizens of Armenia - 2,2 thousand people and Belarus - 1,9 thousand people.

Table 1. Academic mobility of foreign students

Dynamics of the number of foreign students					
Years	2014	2015	2016	2017	2018
Total number of foreign students (people)	175 432	182 869	224 279	240 924	273 000
The share of students in the total contingent of foreign students in the Russian Federation (in%)					
EAEU	13,5	24,8	23,1	24, 9	25,8
CIS	51, 7	53,0	53,1	53, 4	56,7
China	9,7	14,9	15, 8	16,5	17,1
Contingent of leaders of foreign students in full-time education (people)					
Kazakhstan	24 800	25 650	26 100	27 500	29 450
China	9 450	12 300	16 400	18 200	19 700
Turkmenistan	8 100	8 900	9 350	12 100	13 000

Compiled by the author on the basis of materials [3], [7]

The dynamics of the average annual growth in the number of students from the countries of the EAEU, the CIS and the PRC in 2014-2017 is more than 16%, which exceeds the average growth rate of foreign students in Russia (8%). [2, p.5] But in the 2014-15 academic years, growth was registered at 18.1%.

The leading position, as before, remained for the CIS countries, the number of students for the year increased from 69,689 to 80,910 people. The second place is occupied by the countries of Asia, and the third by Africa.

According to the forecasts of the Ministry of Education and Science of the Russian Federation, up to 760,000 foreigners will study in Russia by 2025. Also, the mobility flow of foreign students will increase by 5.6% and the faculty by 3.8% in the framework of Greater Eurasia.

Thus, an increase in the number of foreign students, both in Russia and in the framework of Greater Eurasia, will contribute to the expansion of international scientific and educational cooperation of universities.

Information and communication technologies provide education the ability to match global development trends and adapt to the rapidly changing conditions of the modern world. [5, p. 645]

The real trend in higher education is the technology of online learning. Innovative transformations include the transformation of the technical base of information. Information competence is the use of the Internet.

Information educational resources should significantly expand the possibilities of educational and methodological innovation information. These unique opportunities are connected with modern telecommunications, which is one of the components of the innovation and information environment.

As a result, information and communication technologies act as a factor in the formation of key competencies in the training of foreign citizens.

Therefore, it is necessary to note the competence approach in the training of foreign citizens in connection with the growing integration of the Russian system of higher education in the Eurasian scientific and educational space.

Thus, the transformation of higher education in the framework of the integration of universities in Greater Eurasia requires radical changes in governance, the application of a special scientific and methodical mechanism for the management of integrative higher education systems.

The effectiveness of the management system of educational services for foreign citizens in the conditions of Eurasian integration will be determined, first of all, by the validity of the forms and methods of management used.

The aggravation of international competition for the entrant stimulates the improvement of the quality of education, promotes the development of new networked international training programs. Therefore, in order to increase the competitiveness and attractiveness of higher education in the countries participating in Greater Eurasia, it is necessary to find new segments of the educational services market, namely universities should develop and open new network curricula for undergraduate and graduate programs [6, p. 5].

The analysis of the situation on the Eurasian market of educational services shows that being proactive is required for the member states of Greater Eurasia who are trying to preserve and strengthen their positions, including the creation of educational centers outside of Greater Eurasia, designed to meet the needs of various regions and world economy integration associations.

Despite the positive trends in the integration of universities in Greater Eurasia, a number of existing problems can be identified. First, the factors that arise in the process of reforming the education system, such as the lack of the necessary infrastructure to ensure the modernization of education, the weakness of the legislative framework at the national level and at the interstate level, as well as the problems of financing education [3, p. 24-25]. Secondly, the specific socio-economic development of each of the countries of Greater Eurasia and the lack of an unified approach to the reorganization of the education system. And thirdly, the problems of financing educational networks.

In the framework of many international projects, Russian universities are recruiting foreign citizens of the countries participating in Greater Eurasia, but this activity is very fragmented, there is no exchange of accumulated information and acquired experience between the project participants, and there is practically no dissemination of the results. It is necessary to create an effective system of managing educational services for foreign citizens, which would cover the management of different levels in the sphere of educational services [4, p. 2].

In the context of integration within the framework of Greater Eurasia, it is necessary to intensify the work among the universities, first, in the economic sphere, namely, to increase the competitiveness of educational services; secondly, in the sphere of education and science, the expansion and modification of educational services, the creation of the possibility of implementing the allied scientific and technical potential; thirdly, in the innovation-information sphere, the improvement of the quality of the international information positioning of the countries participating in Greater Eurasia.

The solution of these problems will contribute to the formation of the concept of sustainable, stable development of the export of educational services within the framework of the integration of the universities of Greater Eurasia.

International scientific and educational cooperation of universities in Greater Eurasia is a notable trend in the development of the entire world economy, whose future will depend on the effectiveness of using the innovation process and the international cooperation of the integration formation and on its internal stability.

Reference

1. World Population Prospects. The 2015 Revision. Volume II: Demographic Profiles. New York: United Nations, 2015.
2. UNESCO Institute for statistics [Electronic resource]. URL: http://www.uis.unesco.org/ (дата обращения: 12.12.2017, 07.02.2018, 12.09.2018)
3. Глазьев С.Ю. Реальное ядро постсоветской экономической интеграции: итоги создания и перспективы развития Таможенного союза Белоруссии, Казахстана и России // Российский экономический журнал. 2011. № 6. С. 23–26.
4. Евразийская экономическая интеграция. Цифры. Факты. [Электронный ресурс] URL: /http://www.eurasiancommission.org/ru/Documents/EEC_dig_facts1.pdf. 2017 г. (дата обращения 12.02.2018, 11.09.2018)
5. Карпачева К. В., Демьяненко Н. В. Использование смешанного обучения в процессе обучения профессиональному иностранному языку студентов инженерного профиля // Молодой ученый. — 2015. — №13. — С. 644-646. — URL https://moluch.ru/archive/93/20787/ (дата обращения: 11.02.2018, 14.09.2018).
6. Максимцев И.А., Багиев Г.Л., Газизуллин Н.Ф. Маркетинговое маневрирование в системе регулирования и эффективного развития Евразийского Союза и др. коллективная монография / под научной редакцией Г.Л. Багиева, И.А. Максимцева. Санкт-Петербург, 2017.
7. Медынская И.В. и др. Современное состояние и пути развития системы образования. В 2 книгах /монография/ под общ. Ред. С.В. Куприенко; ISBN/ SWorld. – Одесса, 2012. С.71-112.
8. Чен Юй. Китайская академия современных международных отношений (КАСМО) http://eurasia.expert/nekotorye-strany-evrazii-opasayutsya-epsp. (дата обращения: 11.09.2018).

UDC 331

E.V. Mikhalkina
Doctor of Economics,
Professor of the Southern Federal University,
mikhalkina_e@mail.ru

L.S. Skachkova
PhD., Head of Human Resource Management Department
Southern Federal University,
lskachkova@gmail.com

PRACTICES OF RETENTION OF YOUNG SCIENTISTS IN MODERN UNIVERSITIES OF RUSSIA AND CHINA

Abstract. The article discusses the modern features of attracting, developing and retaining young researchers in Russia and China. A brief review of the existing traditions in the field of formation of highly qualified personnel and trends in the field of quality control of their training, the existing models of modern universities is presented. The authors consider the results of opinions of experts from Russian universities regarding the problems of development of modern postgraduate studies and career strategies of young researchers, suggest current institutional practices for attracting and retaining young researchers and teachers in higher education: academic inbreeding; development of a motivation system for young researchers and lectures; thirdly, the practice of modernizing institutional tools to attract young scientists and lectures.
Keywords: reproduction of human capital, academic in-breeding, motivation of young researchers and teachers, institutions for attracting and retaining young scientists and teachers

Problems of reproduction of human capital in higher education in the context of increasing structural and digital transformation of national universities are relevant and require finding new mechanisms for attracting and retaining young scientists, developing the potential of scientific research using labor, infrastructure and material and technical resources of universities. It is known, the trends towards increasing competition and the development of technological entrepreneurship in the global system of higher education present modern universities to the problem of effective management of the existing human potential. Taking into account the indicators of the development of science in Russia (the indicator of the number of those who defended according to the results of postgraduate education decreases in 2012 - 26.1%, 2013 - 25.9%, in 2014 - 18%, in 2015 - 18%, in 2016 - 14% , 12.8% in 2017, as well as the average age of scientific and pedagogical workers who are 50 years old), we believe that at present there is a serious problem of staff renewal, reproduction of human capital in higher education (Fig. 1).

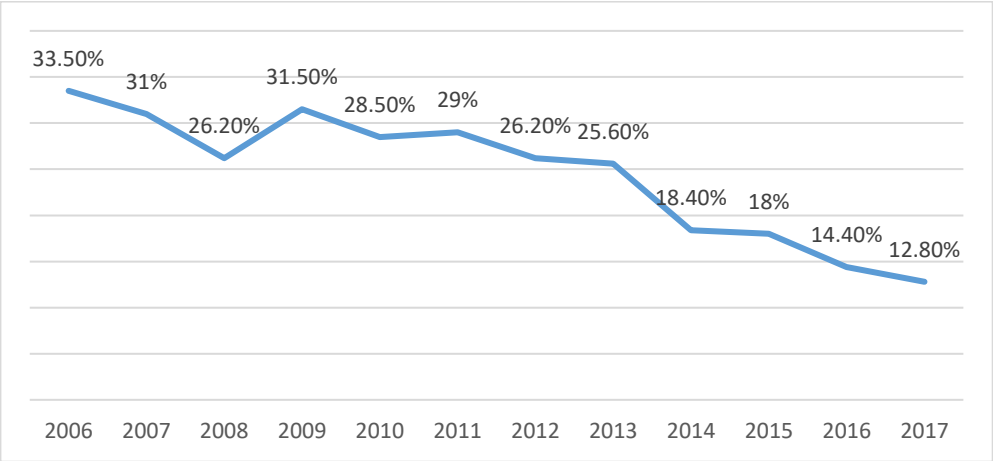


Fig. 1 – The dynamics of timely defended Russian postgraduate students in the total number of completed the learning process, 2006-2017.

In China, on the contrary, higher education development programs are becoming more active, the number of universities, students and teachers is growing. However, according to a number of Russian researchers [1], in China there is a problem of the quality of the training of young researchers. The key factor in the quality and prestige of educational programs, as in Russia, in China is the quality of the university staff. Thus, the lack of effective mechanisms for attracting and retaining young and promising researchers and teachers both in Russia and in other countries determines interest in this scientific problem.

The academic market in Russia and China has similar characteristics and characteristics. So, universities in China are divided into four types:

1) Research universities,
2) Universities engaged in equal science and education,
3) Traditional institutions offering four-year study programs,
4) Colleges of a three-year educational cycle.

Chinese universities are also classified according to their subordination:

1) Universities directly reporting to the central government
2) Universities subordinate to the provincial authorities
3) Private universities.

In Russia there is a very extensive system of classification of universities. Since 2006, a project has been launched for federal universities, which currently number 11 in the Russian Federation. In addition to federal universities in Russia, there are *research universities*, *industry universities*, and since 2017, *supporting universities* have emerged that solve problems in the development of regional economic systems. Note that since 2011, all state universities of Russia have been divided into three types of institutions: public, budgetary, autonomous. Such a division makes it possible to distinguish between flows of subsidies for the performance of a government budget.

A modern proposal related to the reform of accreditation in the field of higher education in 2018 is the modernization of universities and their division into three types: basic, advanced and leading. The basic type of higher education institution means that an educational institution must implement programs in a network form, including using online courses of the National Open Education Platform, which is, using the potential of leading universities. An advanced type of university can create its own programs, training courses, conduct traditional lectures and classes. The leading university should, in addition to implementing its own programs, create and implement educational programs in the online form for basic universities. In general, the problem of upgrading the system of higher education is global and innovative. Current discussions about traditionalism or innovation, susceptibility to change are reduced to the definition of several types of models of universities of the future.

Among the models of universities, such as global project research universities, universities for on-line education, universities providing infrastructure, corporate universities, *universities for an innovative economy*, etc. are distinguished. An analysis of emerging models of universities confirms the fact that in a sectoral and innovative format, a university model for an innovative economy is suitable. The features of such a model are project training, domestic and international mobility, the unit of instruction is the team, competitive selection of projects, teaching methods — projects, cases, learning by experience. It should be noted that such a format in no way reduces the fundamental academic level of teaching, but only enriches it with new technologies and effective institutional practices. Despite the similarity or difference of systems and models of universities in Russia and in China. For both countries, there is the problem of ensuring the quality of training and reproduction of human capital, and above all, in the field of training highly qualified personnel.

According to the author, there are three key institutional practices of attracting and retaining young researchers and lectures in higher education: first, the practice of academic inbreeding; secondly, the practice of developing the system of motivation of young researchers in universities; thirdly, the practice of modernizing institutional tools to attract young scientists and lectures.

Academic inbreeding

Academic inbreeding in the field of education is interpreted as attracting, hiring and retaining universities of their own graduates. University inbreeding is an integral part of personnel policy in the modern education system. This topic is of particular relevance in connection with the problems of reproduction of human capital of the higher education system. A key role in the reproduction and strengthening of the practice of inbreeding is played by postgraduate study, that is, the environment and direction of training that forms the new generation of practicing teachers and research teachers.

Comprehensive interpretation and understanding of the problem of academic inbreeding and career development in an academic environment will allow determining which factors influence decision making in the field of job search and motivation in the field of academic employment. In this regard, we believe that in the absence of an academic labor market, internal inbreeding allows for the reproduction of human capital in higher education, mainly through the development of the institute of postgraduate education.

The spread of inbreeding in China, for example, was related to the way postgraduate study is organized. Therefore, in China, only research universities have the right to issue a PhD degree in some specialties. Accordingly, the level of academic inbreeding in universities with its own graduate school is higher and reaches 57%. Since 1999, the central government of China and leading research universities have been interested in reducing the level of inbreeding. However, the majority of universities in China still do not refuse to hire their own graduates.

Modern studies of domestic and foreign scientists [7] show that academic inbreeding is a common phenomenon, but in world practice, it is treated differently. However, in countries such as Russia, Ukraine, Slovenia, Argentina, Spain, universities openly give preference to their graduates [2]. This trend is explained not by the lack of academic mobility, but by the lack of a national academic labor market, problems with renting houses, cultural traditions and family values. The reasons related to the institutional culture (loyalty of the internal labor market in relation to colleagues, and not to external candidates for academic vacancies) and the stability of social relations in universities, are of great importance and determine the low mobility of teachers. That is, such reasons support the development standards of mono career. Thus, in modern federal and supporting universities of Russia, a steady trend in the development of the internal labor market is being formed, contributing to the maintenance of a closed personnel management system. During March-May 2018, the authors conducted a survey of 187 experts, within which opinions were obtained regarding the reasons for the ineffectiveness of training highly qualified personnel and the development prospects of the training system for young researchers[1]. The experts were members of dissertation and academic councils, heads of postgraduate studies, heads of structural subdivisions of higher educational institutions and research organizations, researchers and others involved in the process of preparing scientific and pedagogical personnel from the following regional and federal universities. According to the study, the following factors have a significant impact on the demand of young professionals of higher qualification: the lack of opportunities for universities to form attractive job offers for young researchers and lectures, a small amount of research and development, low vacancy rates for young professionals in the academic field due to institutional conditions and the traditions of the election of university staff by competition (as a rule, in such competitions, preference is given to university staff having experience). With a high frequency, experts noted a significant impact on the demand of young specialists on the level of academic inbreeding in universities.

[1] The study was conducted with the support of the Russian Foundation for Basic Research (RFBR), grant 18-010-00591 «The choice of career strategies by graduate students»

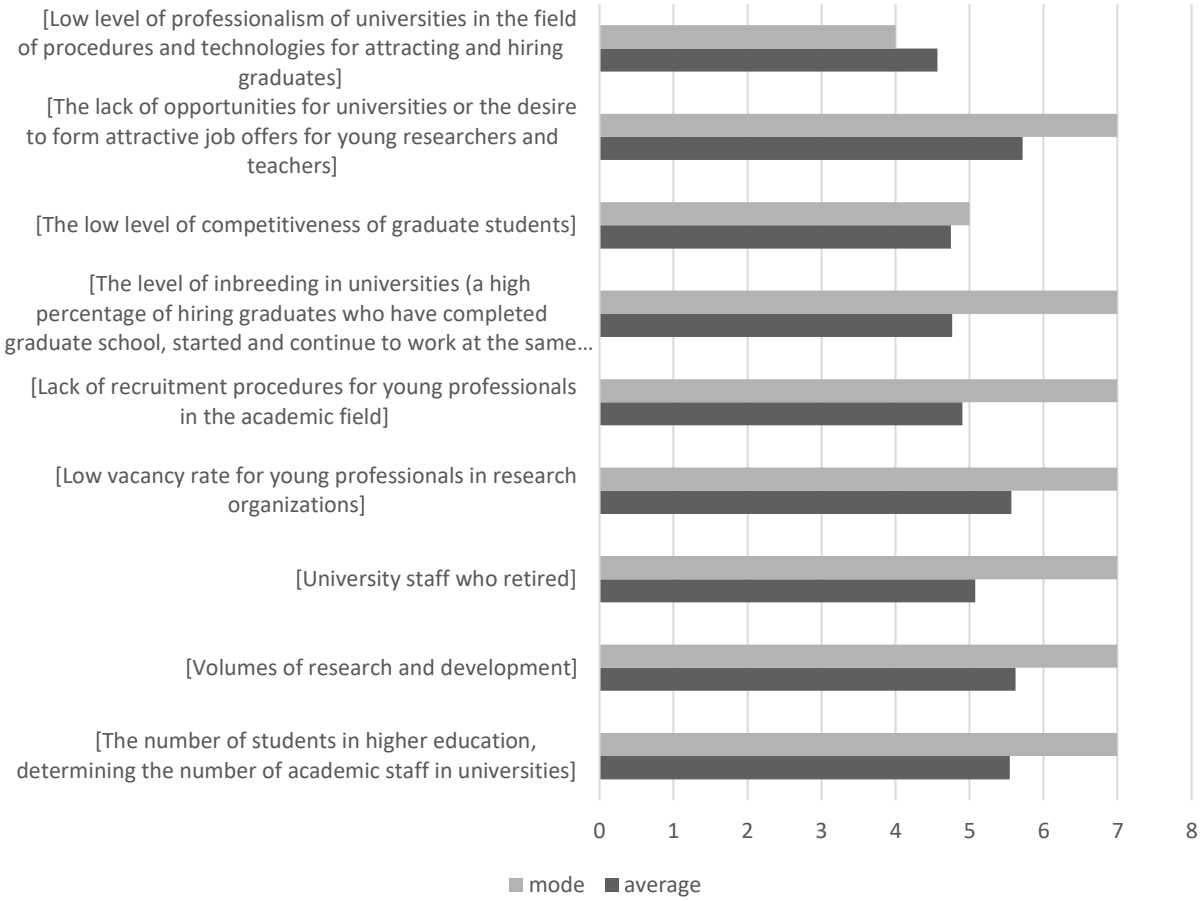


Fig. 2 - Demand factors for young specialists in Russian universities

At the same time, universities are building up resources for the development and reproduction of pedagogical staff within the university for the purpose of their subsequent retention (support for internships, participation in conferences and competitions, inclusion in research teams and small research groups).

The retention of effective employees of modern universities is associated with another problem - low motivation to improve performance.

Managing the motivation of young researchers and teachers

Managing the motivation of young researchers and lectures at Russian universities is an essential component of the institutional modernization of personnel policy in the field of higher education. It is questions of motivation, involvement and stimulation of labor activity among young university staff that should provide the prerequisites for realizing the potential of Russian science, the education system, and the potential of the human resource as a key factor in the structure of intangible factors of innovative development.

As practice shows, the problem of retaining young scientists has a separate relevance while reducing the effectiveness of postgraduate studies as a direction for training highly qualified personnel. The problem currently being tested is that the number of people who have defended as a result of postgraduate education is decreasing, and graduates of graduate schools are not choosing the research field of activity as the main one and do not enter the academic labor market. Young people consider Ph. D' programs as the next stage of professional development, preferring other areas of professional development that are not related to academic activities. According to the results of a survey of experts, about 30.9% of graduates from Russian postgraduate studies can form a career in a non-academic labor market (coinciding, not coinciding with the direction of

training, in the commercial sphere, in the public sector). In this regard, relevant systems of internal motivation and incentives at the university level, the proposal of various schemes for the involvement of talented youth in the implementation of programs for the development of universities and individual departments. In particular, the development of postdoctoral fellowship.

The practice of modernization of institutional tools to attract young scientists and lectures

A survey of experts from federal and regional universities in southern Russia showed a number of key problems and trends. *First,* it is necessary to form the core and content of educational programs for postgraduate programs. Many respondents pointed to the need to exclude from the main content of the postgraduate programs of the pedagogical, humanitarian part (philosophy, pedagogy). *Secondly,* it is necessary to support the development of a system of incentives in the academic sphere. In more than 70% of the responses, opinions were received regarding the increase in incomes of scientific and pedagogical workers, which should take place not only at the expense of wages, but also at the expense of the development of a system of scientific scholarships and the development of housing programs. *Thirdly,* it is necessary to form the attractiveness and prestige of work in the academic field, which, of course, requires government support (for example, a program to improve the social status of the scientist in society, systematically increasing interest in research and teaching). *Fourth,* systemic personnel decisions are needed related to the creation of jobs and working conditions for postgraduate students. Quite often, experts have paid attention to opinions about the growth of bureaucratization in universities, which hinders the work on the dissertation. *Fifth,* it is necessary to develop measures for the selection and selection at the stage of admission and selection to postgraduate educational programs. Many experts have paid attention to the parameters of entry to postgraduate school. Careful selection of capable and motivated candidates for postgraduate students is no less important a step than teaching and preparing a dissertation. *Sixth,* it requires the creation of opportunities for research, the development of academic freedoms and the protection of dissertations. Respondents often pointed to the need for the logistics of postgraduate studies: the availability of educational and experimental farms and a powerful laboratory base. Experts from regional universities also pointed out the difficulty of defending dissertations related to the lack of advice.

Thus, the modern practice of training highly qualified personnel in university, of course, raises many complex issues that require further research in understanding the causes and factors of decision-making regarding admission to postgraduate educational programs, the reasons for refusing to develop in the academic field, factors influencing the choice of professional development in research field, as well as projects on the formation of new institutions that affect the development of an effective infrastructure to support young researchers and academics one of the labor market.

References:

1. Ascheulova N.A., Dushina S.A. Chinese postgraduate studies: features of the national system of training the intellectual elite // Bulletin of MGIMO University. 2012. № 2 (23). Pp. 245-250.
2. Academic inbreeding and mobility in higher education: Global Perspectives / ed. M.M. Yudkevich, F.J. Altbach, L. Rambla; per. from English G.S. Petrenko under the scientific. ed. M.M. Yudkevich; rep. ed. N.M. Khalatyants; Nat researches University “Higher School of Economics”. - M .: Izd. House of the Higher School of Economics, 2016. - 328 p. From 21-27.
3. Wissema, Johan G. The University of the Third Generation: University Management in the Transition Period - Moscow: Olimp-Business Publishing House, 2016. - 432c. P. 65.
4. Gurtov V.A., Schegolev L.V. Forecasting the needs of the economy in personnel of higher scientific qualification // Problems of forecasting. 2018. No. 4
5. Mikhalkina E.V., Mikhalkina D.A. Approaches and management mechanism of employee motivation and involvement // State and municipal management. Scholarly notes. 2017. No. 4. 49-56
6. Skachkova L.S., Kostenko E.P., Butova S.V., Mikhalkina E.V. Management of staff motivation: approaches, models, tools / Ed. Mikhalkina E.V.- Rostov-on-Don: Assistance HH1 Century Publishing House, 2015.
7. Soler M. How inbreeding Affects Productivity in Europe // Nature. 2001. No. 411. P 132.

UDC 339.92

O.A. Kuzakova
PhD., associate professor
Department of world economy and international economic relations,
Saint-Petersburg state university of economics
olesyakuzakova82@mail.ru

M.L. Lukashevich
PhD., associate professor, senior research fellow
Department of world economy and international economic relations,
Saint-Petersburg state university of economics

COOPERATION FORMS OF ECONOMIC DEPARTMENTS IN RUSSIAN AND CHINESE UNIVERSITIES

Abstract. The article deals with Russian-Chinese economic relations in the field of trade and education; the forms of networking of economic departments of Russian and Chinese universities in the process of targeted project-oriented training of engineers-economists, implementation of consulting projects for enterprises and the development of business cases in the field of internationalization of Russian and Chinese companies are proposed.
Keywords. Department, university, enterprise, consulting, projects, internationalization, cases.

Introduction

Economic cooperation between Russia and China has been developing dynamically in the recent years. However, the structure of foreign trade between our countries is not balanced. According to the website « Foreign Trade of Russia» in the structure of Russian exports to China in the first half of 2018, goods with low value added prevailed: mineral products (75%), wood and pulp and paper products (9.5%), products of chemical and metallurgical industry (5.9%), food products and agricultural raw materials (4.4%). While mechanical engineering goods accounted for only 3% of total exports. In the structure of commodity imports from China, on the contrary, finished products with the high value added prevail: machine-technical products (55.9%), products of light industry (10.7%) [8]. The main factor of the Chinese imports growth was the continued strengthening of the Russian ruble which had a positive effect on the affordability of Chinese goods for Russian importers, as well as their competitiveness in the Russian market. An additional stimulus was the rapid growth of e-commerce. According to the data of the Russian Association of Online Trading Companies (ACOT), at the end of 2017 Russia imported in the online sales format Chinese products in the amount of 340.6 billion rubles (about 5.4 billion dollars) versus 4 billion dollars in 2016 [3]. For Russian enterprises primarily belonging to the category of small and medium-sized enterprises (SMEs), the development of electronic commerce as the most effective channel of access to the Chinese market is of considerable interest.

Unfortunately, so far the number of Russian SME exporters is small. Although the number of small exporters in 2017 actually doubled compared with 2016 and reached 28128 units and the number of medium-sized exporters increased by 28% and amounted 1986 units, their share in the total number of SMEs is only 10% and their contribution to the export volumes of enterprises in the processing industries is 6.4% for small enterprises and only 5.6% for medium ones [4].

The China-promoted global initiative “One Belt – One Way”, according to experts, can give Russia significant benefits from participation only with a pragmatic approach, when its long-term strategy of the transition from a raw material economy to a post-industrial one is put at the forefront. To do this, it is necessary to move from the position of a country that supplies China mainly with low-quality natural raw materials and energy carriers to a mutually beneficial equal partnership. One of the ways of such a partnership can be direct investments of Chinese companies in Russia, the creation of joint ventures, the localization of Chinese goods production in Russia with a high level of added value. “It is necessary to offer foreign investors, including Chinese,

transparent rules of the game, which conceptually should boil down the fact that the Russian market cannot simply be milked - you need to invest in it, then the government will make every effort so that the investor earns a reliable long-term income. It is important to remember that model projects are guidelines for followers. ”[2].

An example of such a responsible investment in the field of e-commerce is the creation of a joint venture between the world e-commerce leader Chinese AliExpress, the Russian mobile operator Megafon, the high-tech Mail.Ru Group, and the Russian State Direct Investment Fund (RFDI). AliExpress occupied over 90% of cross-border trade in Russia with a total volume of almost 400 billion rubles, in a joint venture it will have 48% of shares. The new joint venture will have Russian jurisdiction and will pay taxes here [1].

Through such joint ventures, Russian SMEs, including manufacturers of consumer goods and food products, perspective export industries, will also be able to enter the Chinese market. In China grocery imports are growing: it has grown by 37%, from 14.3 to 19.6 billion dollars over five years since 2012. The Chinese middle class, which forms the demand, amounts 280 million people. And due to the policy of the Chinese government to stimulate the import of consumer goods by reducing the import tariffs for almost one and a half thousand items of consumer products in average from 15.7 to 6.9%, the Chinese market is becoming very promising for Russian exports. Along with the expansion of consumer goods imports in China, the task to promote the import of professional services has been set: manufacturing, R&D, logistics, consulting and in the field of energy conservation and environmental protection. However, the problem is the ignorance of the specifics of local markets, the use of standard, successful in other countries marketing tools. In China, 70% of all the sales are made via online stores, bloggers advertise the goods most successfully (life-streaming), so the Chinese consumer is ready to overpay for imported goods [7].

Besides the cooperation of our countries in foreign trade and investment, cooperation in science and education, business services are also important. So far this cooperation is developing mainly in the universities and includes the training programs on bachelor, master and postgraduate levels. It seems to us that it is necessary to develop cooperation at the level of departments of Russian and Chinese universities, representing small research and educational teams, which are more flexible and operational in their actions compared to universities on the whole. We justify further this idea on the example of economic departments’ cooperation.

In Russia in the 1990s because of the decline of the industry and the system of sectoral management, the long standing connections between economic universities and enterprises were broken down. This cooperation was carried out on a contractual basis through a system of sectoral research laboratories that entered into agreements with regional and sectoral authorities, organizations and enterprises for conducting scientific research of an economic field. Professors, postgraduate students and students were involved into applied research. By doing this they solved their research and educational tasks: preparation of the thesis and graduation projects, scientific articles and monographs. Thus, the results of R&D were introduced into the production and educational process and the parties had mutual benefit. After the decline of the industry, industrial laboratories were closed. Later independent consulting firms, many of which were created by former professors of economics departments of universities, took their place. As a result, there was a rupture of ties between universities and enterprises, which negatively affected the development of professors’ opportunities and the level of student training. Whereas in the technical universities there are basic departments of leading enterprises and scientific organizations, which almost took upon themselves specialized training of specialists and conducting research for themselves, then there are few such departments in economic universities. Their educational function is performed by corporate universities of large holdings, and research function is conducted by independent consulting firms.

New challenges facing the industry require the restoration in one form or another of enterprises' links with economic universities. These tasks include increasing non-energy exports, increasing innovation and foreign economic activity, reducing production costs and increasing productivity,

comprehensive development of small and medium businesses. Solving these tasks requires targeted training of specialists with corresponding competencies, new forms of organizing teamwork.

At the St. Petersburg State University of Economics quite a lot of Chinese students study in various departments, but we do not see any significant cooperation with Chinese universities in the process of training these students. It seems to us that the strengthening of the universities interaction at the level of economic departments would be useful both in the field of education and scientific research. As a rule, economic departments within the framework of their scientific schools possess sufficiently developed specialized competences in research areas. To solve the tasks set by customers, the department may engage specialists with the necessary competencies from the departments of their own and other universities. Unfortunately, in Russian universities still the horizontal interaction of the departments in solving educational and scientific problems is poorly developed.

We offer some directions and forms of economic departments' participation in cooperation between themselves and also with the industrial enterprises and organizations.

Of particular importance is targeted training. According to sociologists, 40% of university graduates in the future do not use almost any knowledge and skills that they had acquired in the educational program. This fact, by the words of the rector of the HSE Kuzminov, leads to the transformation of special professional education into "general higher education" and the formation of a new failure of graduates associated with the discrepancy between the professional skills and qualifications obtained by the student and the real requirements of the labor market [9].

The reasons for this situation are also largely due to the lack of graduates' industry specialization and the loss of the interaction between education and practice. To solve this problem, it is advisable to use the experience of countries that have a successful industry and conduct effective personnel training.

Nowadays the specialists in engineering and economics (engineers- economists) are quite demanded, they are sometimes called production managers. In the USSR, they were trained in specialized universities and at branch departments: the economy and the organization of machine-building, chemical industry. In the 1990s, the training of specialists in this direction practically disappeared and the departments, that provided the basis for engineering knowledge, disappeared respectively. The training of engineers-economists with the bachelor's degree is now possible only in technical universities with economic departments. The demand for such specialists has not disappeared; medium-sized enterprises especially need them.

Methodology

It is possible to restore the training of economists-engineers in the current conditions through the master training programs in the economic universities. For this the economic departments can organize for engineers with bachelor degree the educational programs in management and economics, taking into account their specialization. So the department of World economy and international business can give competence in the field of foreign economic activity of enterprises and international engineering. There is an experience of Germany, where in the universities engineers get specialized training on the master level, gaining special knowledge on modern economic problems.

For example, the Baden-Württemberg Export Academy, which is the part of the Steinbeis Berlin Network University, offers an educational program for project and competencies training on the master level in the field of «Global Technological Management». This program is an example of the so-called profession-accompanying training and includes a practical project executing throughout the whole educational process. The main idea of such training is that a specialist with a bachelor's degree in engineering, after some work experience in an enterprise, can receive a master's degree in management on the job. This training is partly an alternative of bachelor's training of engineers-economists.

The departments of world economics and international business of Russian and Chinese universities can also jointly develop and offer to potential customers case-based master's programs for engineers in such areas as “Integrating of the small and medium-sized companies into the Russian-Chinese economic environment”. During these courses within the master’s program engineers will acquire professional competences in the field of the global economy and international business:

• the working out and implementation of the company’s foreign economic activity plan;
• the organization of activities for the promotion and purchases of products abroad;
• the preparation, conclusion and support of a foreign trade contract;
• the research and selection of prospective target markets;
• the approvement of international investment projects;
• the working out of scenarios for the company's foreign economic activity development.

Prospective markets for such an educational program are Russian and Chinese companies considering various strategies for internationalizing their activities, including the possibility of entering the markets of China and Russia, attracting foreign investors, and transforming into an enterprise with foreign capital. Besides the university professors, in the studying and project processes may also be involved specialists from Russian and Chinese enterprises and consulting companies. It is also possible the co-financing of projects carried out by master students by enterprises-customers. Training in such a master program should be practice-oriented and involves the analysis of actual cases of enterprises.

Due to the complexity of the rapid formation in the modern Russian conditions of the educational program of the project and competences-based training, we offer to analyze cases of Russian and Chinese enterprises with their success and failure stories. On the one hand, they themselves present a model for the companies with similar product, enterprise and market situation parameters, on the other hand, cases are practice-oriented educational mission because they allow students to simulate the behavior of the company considering in a case in the changing market conditions, offer alternative solutions and to get the knowledge and experience of the company's actions in a given situation. We propose the following method of case study. A small working group (2-3 people) is being formed; the group gets

the data set about the company (papers in media and other publications, analytical reviews, research results). Then the group performs the following actions: 1) surfs additional relevant information about the company; 2) works out a brief about the company; 3) depicts on the time axis the main events of the company’s life connected with its development and internationalization processes such as transition to a new stage of the life cycle, change of the strategic potential, business model, the access to the markets of new countries, the usage of new penetration strategies and international marketing tools ; 4) details the data with facts and opinions from data sources, using the logical structure of the strategic plan and / or business model; 5) answering the case study questions, confirms the facts and strategic decisions of the company through theoretical concepts. This methodology of working out and analyzing the case study was partially implemented as a part of the Master's program «International Economics» at St. Petersburg State University of Economics.

Unfortunately, the internationalization cases of Russian and Chinese companies on the both markets are still not enough. The "Expert" magazine gives some examples of Russian companies actions on the Chinese market [5,6], but there are no such ones of Chinese companies on the Russian market. Some projects are presented by Chinese students as part of their final thesis, but these are still not enough. Therefore, the cooperation of departments in the working out process and publication activity of success stories of Russian and Chinese companies on the international markets is highly relevant.

The cooperation of the departments is efficient in the form of network interaction. At the level of universities, this can be realized as the development of joint educational programs on a contractual basis, and at the level of departments – as the cooperation based on the agreements

about the joint development of case studies and textbooks, scientific publications and seminars. Of great interest is the joint participation in the performance of enterprises' orders on the contractual terms. For example, the department of some Chinese university receives a request to assess the market prospects and the conditions for starting a business in St. Petersburg. It sends this request to the partner department in the network. The last one evaluates the possibility of performing the request and concludes a contract. The Chinese department receives an agreed transaction fee and the image of a business consultant in St. Petersburg. This way is how the network interaction in the field of consulting is carried out.

During the realization of any project the departments can interact both within the internal network, with other departments of the university, and the external network - with the departments of other universities. A similar model takes place, for example, in Germany, where professors from different universities are merging to fulfill an enterprise order within a network of small university consulting firms.

The organizational and legal form of cooperation between departments may be created at the university in the form of non-commercial partnership or in the form of a small limited liability enterprise, representing a certain legal and economic independence. This company is responsible for contracts implementation, is engaged in marketing, becomes a member of external networks and receives interests. Inside the university it operates as a network of departments or working groups created for a specific project. The department (group) searches for a customer, coordinates the terms of the project and transaction. The non-commercial partnership or a small enterprise concludes a formal contract. The small enterprise can be established by individuals (initiative scientists with leadership features), interested in the enterprise's activity and the parent university development. Such a scheme will enable economic departments and initiative scientists to press consulting firms in the field of implementation of the small projects such as market research, approvement of investment projects, preparation of various kinds of business references, benchmarking of business cases, actual issues consulting, participation in the working out and examination of development strategies, conducting master classes and short seminars, project-oriented targeted training.

References

1. Александр Лабыкин. От Alibaba защитились маркетплейсами. //«Эксперт» №39 (1090) 24 сентября 2018.
2. Алексей Чекунков Мифы и надежды Пояса и Пути// «Эксперт» №15 (1025) 10 апреля 2017.
3. Аналитическая справка и статистические данные по внешней торговле России и Китая в первом полугодии 2018 г. [Электронный ресурс] – Режим доступа:http://www.ved.gov.ru/analytic_cn/(Дата обращения 27.09.2018 г.).
4. Анна Федюнина Микроэкономика экспорта. //«Эксперт» №39 (1090) 24 сентября 2018.
5. Валерий Покорняк Экспорт в Китай: заход с тыла. // «Эксперт» №36 (1087) 3 сентября 2018.
6. Вера Краснова Фиолетовые конфеты, ножи Путина и много товаров из России.// «Эксперт» №36 (1087) 3 сентября 2018.
7. Вера Краснова, Заур Мамедьяров, Анастасия Матвеева Накормить Китай с наскоку не получится. //«Эксперт» №36 (1087) 3 сентября 2018.
8. Внешняя торговля России с Китаем в 1 полугодии 2018 г. [Электронный ресурс] – Режим доступа: http://russian-trade.com/reports-and-reviews/2018-08/vneshnyaya-torgovlya-rossii-s-kitaem-v-1-polugodii-2018-g/(Дата обращения 28.09.2018 г.).
9. Кузьминов Я. Как дать выпускнику колледжа надежду на успех // Ведомости №4459 от 28.11.2017.

UDC 32

Y. Liu
Shanghai University of Finance and Economics.

THE OPENING OF A NEW ERA OF SINO-RUSSIAN COOPERATION UNDER THE CONCEPT OF THE COMMUNITY OF SHARED FUTURE FOR MANKIND

Abstract: As a new world develop concept，the "Community of Shared Future for mankind" aimes to achieve the mutual benefits and win-win for all countries of the world. Under the guidance of this concept，Sino-Russian relations have reached the best level in history. Not only the strategic cooperation relations have strengthened，the economic and trade cooperation have expanded，the cultural and social exchanges have also deepened. In order to promote the development of Sino-Russian relations go further，our two countries should continue to focus on the concept of built "the community of shared future"，improving political mutual trust and strategic cooperation by taking the core interests of each other as a fulcrum，relying on the "one belt and one road" to expand economic exchanges and deepen cultural exchanges，ultimately open up a new world situation of fairness and justice together through the promotion of each other's comprehensive national strength .
Key Words: Community of Shared Future for mankind; Sino-Russian Cooperation; new era.

The Peripheral diplomacy and the" Community of Shared Future " are the two major breakthroughs in China's diplomacy since the 18th National Congress，especially in the report of the Party’s 19th National Congress，General Secretary Xi Jinping put forward the important idea of building "a community of Shared Future" clearly，this is an important part of Xi Jinping's thought on socialism with Chinese characteristics for a New era. In recent years，under the guidance of the diplomatic concept of building "a community of Shared Future"，China and Russia have strengthened their relationship of good neighbors，good friends and good partners. The comprehensive strategic partnership of cooperation between the two countries reached the best level in history，becoming the model of world power relations. It is believe that in the context of "building a community of Shared future for mankind "，the "One Belt And One Road" will be connected with the Eurasian Economic Union，and the Economic Corridor of China，Mongolia and Russia will be connected with Russia's advanced development zone in the far east. These connections will greatly promote the rapid economic development of China and Russia，especially the adjacent regions，and open a new era of China-Russian cooperation.

The Current Situation of Sino-Russian Relations under the Concept of "Community of Shared Future"

Sino-Russian relations have always been a very important relationship in the pattern of international relations. In 2017，President Xi Jinping met with Russian President Vladimir Putin in Astana，"In the current complex and changeable international situation，The sound development of China-Russia relations is of vital importance to the development and revitalization of China and Russia and to world peace and stability" It can be seen that promoting the positive development of Sino-Russian relations is of great importance to the peace and stability between the two countries and their surrounding regions and the whole pattern of world relations. Since the 18th CPC National Congress，Sino-Russian relations have opened a new historical chapter under the call of the concept of the community of destiny.

Firstly，the strategic cooperative relationship between China and Russia has been further strengthened. Since the 18th CPC National Congress，China and Russia have maintained high-level strategic coordination，maintained close communication with major international and regional issues. They have strengthened cooperation with the framework of the United Nations，

the APEC economic cooperation，the Shanghai cooperation organization and the BRICS countries，which could enhance their voice and influence. In the joint statement publicly published by the two countries，the elaboration on strengthening international collaboration is of paramount importance. In 2014， President Xi Jinping and Russian President Putin signed the "Joint Statement on the New Stage of Comprehensive Strategic Cooperation Partnership between China and Russia". The significance of this statement is that China and Russia are only two countries in the world which have comprehensive strategic partnership of coordination. To say how good the Sino-Russian relationship is，it can be felt from the ordinary people to the leaders of the country. Putin is one of the most popular foreign leaders in China，and his photos and videos are often heavily praised by netizens on the social network sites. In high-level diplomacy，Putin often calls Xi Jinping "my good friend". Since 2014，Putin has maintained unimpeded communication with Xi Jinping，and they have met up to 20 times. In 2017 alone， the two also had five opportunities to meet，including “One Belt And One Road” peak BBS， the July visit to Russia by Xi Jinping，G20 summit in Hamburg，Brics summit in Xiamen and APEC meeting. On 4 July 2017，during Xi Jinping's visit to Russia，he signed a "Joint Statement of the People's Republic of China and the Russian Federation on the Current World Situation and Major International Issues" with Putin. The statement comprehensively expounded the unanimous views and positions of the two sides on the current international situation，regional hot issues and maintaining global strategic stability [2]. The statement is the latest attitude and position of the two sides as comprehensive strategic partners to cope with the current and future severe global challenges. It has a special impact on maintaining world peace and stability and also marks a new level of Sino-Russian strategic partnership of cooperation."

Secondly，Sino-Russian cooperation in the field of economy and trade is further advanced. Since the 18th CPC National Congress，China has maintained Russia's largest trading partner status and the level of economic and trade cooperation between the two countries has been further enhanced. In 2017，bilateral trade between China and Russia further accelerated， and the annual trade volume reached US$84.071 billion，a year-on-year increase of 20.8%. Among them，China’s exports to Russia totaled US$42.876 billion，a year-on-year increase of 14.8%，China’s imports from Russia totaled US$41.195 billion，a year-on-year increase of 27.7%. Russia's trade surplus is obvious. In order to accelerate the trade development between China and Russia，they have also effectively communicated with the "One Belt and One Road" initiative advocated by China and the Eurasian economic alliance in which Russia participated and expanded the mutual investment between China and Russia. In promoting the implementation of major economic projects， China and Russia has carried out in-depth cooperation in a series of fields such as renewable energy coal and hydroelectric development， laying a foundation for the common healthy development of the two economies.

Finally，the cultural exchange between China and Russia has been further strengthened. Since the 18th CPC National Congress，Sino-Russian cooperation in the fields of media literature education sports tourism film and other fields is pragmatic and effective. There are regular projects，such as the government-led Sino-Russian Media Exchange Year Russian Culture Festival Russian Film Festival、China Film Festival and other large-scale national events，as well as concerts、museum exhibitions and art exhibition organized by famous art groups of the two countries. There are also some Breakthrough cooperation， such as the joint establishment of the university of north Moscow in Shenzhen by China and Russia，the joint establishment of a media platform by the two countries' authoritative media，and the joining of Chinese ice hockey teams to the Russian super league. There are also some down-to-earth exchange programs，such as swimming across Amur River，fluorescent night race and so on. These activities are rich and colorful， reaching

out to the public from top down， driving the interaction and cooperation of the culture and media and tourism between the two countries. They consolidated the public opinion foundation for the development of bilateral relations.

Leading Sino-Russian relations to continue move forward with the concept of "Community of Shared Future"

The reason why the cooperation between China and Russia can be fully expanded in many fields is fundamentally derived from the broad common interests and development needs of the two countries. Especially in the context of major development，changes and adjustments of the whole world pattern，there are more and more core interest concerns between China and Russia. The two countries are already not only "good neighbors linked by mountains and rivers"、"good friends who help each other" and "good partners who sincerely cooperate"，but also a community of common destiny. The two countries must work to build " Community of Shared Future " as the value guidance in the new historical starting point，they should firmly clamped the main contradictions in the development of China-Russia relations and seek more common interests. From the long-term development of China-Russian relations as well as their respective core interests between China and Russia，starting from the overall situation of maintaining world peace and development，they should open up a new situation of the bilateral relations between China and Russia in a higher level and broader depth cooperation，push bilateral comprehensive strategic partnership forward.

Firstly，they improve the level of political mutual trust and strategic cooperation with the core interests of each other as the fulcrum. The Community of Human Destiny aims to build a "lasting peace，universal security，common prosperity，openness and inclusiveness，clean and beautiful world". However，in the face of global problems such as terrorism cyber security [1] and climate change，no country can cope with challenges on its own，and no country can do its part. Under such circumstances，China and Russia，both major and responsible countries in the world，should work together to exert their influence in international affairs and actively participate in the reform of the global governance system，so as to create favorable external conditions for their own development and contribute to the realization of a better life for mankind. At present，China-Russian strategic partnership of coordination is at an unprecedented high level. It has become a model of good-neighborly friendship and cooperation among countries and a model of major-country relations. In order to promote the building of a community of human destiny，China and Russia should further enhance political mutual trust on the basis of mutual respect for the core interests of national sovereignty，security and territorial integrity. They also should deepen pragmatic cooperation and comprehensively consolidate the political、economic and social foundations of bilateral relations and push China-Russia strategic partnership of cooperation to a new level. Only in this way can we work together in the same boat to properly handle various traditional and non-traditional security threats and safeguard our national interests [4].

Secondly，relying on the "One Belt and One Road" to expand economic exchanges and deepen cultural exchanges. "The Community of Human Destiny" upholds the development concept of "openness tolerance inclusiveness balance and win-win"，aiming at promoting the common development and common progress of all ethnic countries. The "One Belt，One Road" strategy is specific practice to this value concept [5]. As the largest geographical neighbor and the closest strategic cooperation partner，China and Russia should push this advantage to the fields of economy and culture on the basis of current good political relations，and achieve mutual benefit through mutual assistance and cooperation which is the direction of closer Sino-Russian relations and prospects. In order to achieve this，China and Russia must rely on the "One Belt and

One Road" construction，and focus on policy communication facility connectivity、trade smoothly、financial financing and the same hearts，and strive to achieve coordinated development and linkage growth. Economically，China and Russia should work together to build up a new economic development zone and a new development model，give play to the advantages of technological innovation, and create new industrial clusters and industrial chains based on the future. Then going out of the traditional structure of resources and military work as the pillar，the "One Belt，One Road" platform is connected with the Eurasian Union to create a deep cooperative development zone. In terms of culture，it is necessary to further strengthen media cooperation between the two countries on the basis of the original cultural exchange mechanism，strengthen exchanges and mutual learning of cultural products，send more international students each other，and encourage cross-border tourism，then consolidating the goodwill of the two countries' good-neighborliness and friendship，forming a good situation for the country's close relatives [3].

Finally，build a community of human destiny based on the improvement of mutual national strength. As a responsible world power，China and Russia cannot only limit the relationship between the two countries to the realization of mutual interests. Instead，they should take the initiative to promote the realization of the welfare of people all over the world into the scope of bilateral relations and work together to build the community of human destiny. In order to do this，China and Russia should further deepen their strategic cooperation on the basis of their efforts to develop themselves and enhance their comprehensive national strength，work together to break the current world system dominated by the developed capitalist countries in the West and completely abandon the old thinking of "zero-sum game" through the close cooperation with each other，so as to build a new international order that is more fair and justice and aims to realize the common interests of all mankind under the concept of "win-win ". By sharing the platform and seeking common development，we will promote equal consultation and dialogue between different ethnic countries and understand each other’s interests and concerns. We should discuss the rules，build mechanisms，and meet challenges on relevant global issues，and finally make the whole world a community of destiny in you and me.

References:

1. Газуль С.М. Бизнес и облака // Сборник материалов 7-й международной научной конференции «Информационные технологии в бизнесе». — СПб.: Изд-во СПбГУЭФ, — 2011. — С. 134-135.
2. Матвиенко Ю.Е. Анализ развития железнодорожного транспорта в ЕАЭС // Международный студенческий научный вестник. — 2019. — № 1.; URL: http://www.eduherald.ru/ru/article/view?id=19537 (дата обращения: 11.02.2019).
3. Lifan Li. National energy security and sino-russian-kazakh-japan energy cooperation/ Central Asia and the Caucasus. 2007. № 1 (43). С. 110-120.
4. Kizekova A., Ho T.E.B. The future of the shanghai cooperation organization in sino-russian interactions. Известия Иркутского государственного университета. Серия: Политология. Религиоведение. 2014. Т. 7. С. 108-115.
5. Wang Wan, Cheng Zhijie. Sino-russian transboundary water cooperation regarding heilongjiang river under the background of silk road economic belt. European Journal of Law and Political Sciences. 2015. № 3. С. 40-44.

UDC 339.56

X. Liu
PhD in Economic Sciences,
Assistant Dean of the School Marxism of Shanghai University of Finance and Economics,
Editorial director of Journal of Economics of Shanghai School

THE "BELT AND ROAD" INITIATIVE AND THE GREATER EUROPE AND ASIA PARTNERSHIP—ECONOMIC AND TRADE COOPERATION AND DEVELOPMENT BETWEEN CHINA AND RUSSIA

Abstract. President Xi Jinping first proposed the grand strategic concept of "One Belt, One Road" in September and October 2013. The "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform" adopted by the Third Plenary Session of the 18th CPC Central Committee clearly stated that "accelerate the interconnection of neighboring countries and regional infrastructure, and promote the Silk Road Economic Belt and Maritime Silk Road construction and the formation of a new pattern of all-round opening." The report of the 19th National Congress of the Communist Party of China pointed out that "the door to China's opening will not be closed, and it will only grow wider. We should focus on the construction of "one belt and one road", adhere to the principle of "bringing in and going out", abide by the principle of "sharing and sharing together, and strengthen the opening and cooperation of innovative capabilities, and form an open pattern of land, sea and interior linkage and East West two-way mutual aid".
Keywords: economic and trade cooperation, the «Belt and road».

The "Belt and Road" Initiative is essentially a new strategy for China to open up to the interior of Europe and Asia. It is an important concept for China's economic development and diplomatic undertakings. In response, Russia actively responded and supported the proposal of President Xi Jinping to jointly build the Silk Road Economic Belt. Russia is also willing to link the Trans-Eurasian Railway with the "Belt and Road" to create greater benefits. President Xi Jinping visited Russia to attend the celebration of the 70th anniversary of the victory of the Russian Patriotic War in May 2015. He signed the "Joint Statement on the Construction of the Silk Road Economic Belt and the Construction of the Eurasian Economic Union" and the "Joint Statement on Deepening the Comprehensive Strategic Collaboration Partnership to Promote Cooperation and Win-Win" with President Putin, which has opened a new era of Sino-Russian cooperation. Putin gave a speech on the Greater Europe and Asia Partnership at the "Belt and Road" Forum held in Beijing in May 2017, and proposed a strategic consensus between China and Russia on the future development of Europe and Asia. In July of the same year, General Secretary Xi Jinping visited Russia. The Chinese and Russian heads of state signed the "Joint Statement of the People's Republic of China and the Russian Federation on Further Deepening the Comprehensive Strategic Cooperation Partnership" and approved the "Treaty of Good-Neighborliness and Friendship and Cooperation between the People's Republic of China and the Russian Federation. Implementation Outline (2017 to 2020)". These forward-looking and long-term guidance documents have strengthened the strategic and mutual trust between the two sides in order to maintain a high-level development of bilateral relations under the new situation.

I. Bilateral trade cooperation between China and Russia

At the beginning of the disintegration of the Soviet Union, the trade between China and Russia was only about 6 billion US dollars. The trade and exchanges between the two countries have developed rapidly over the years, from simple energy and goods trade to all aspects of cooperation in all areas, such as investment, high technology, finance, infrastructure, agriculture, etc. Economic and trade cooperation is accelerating the transformation from scale to quality and efficiency.

The "Belt and Road" initiative was launched since 2013. Russia experienced economic recession, weak growth, tumbling of rubles, and changes in international markets and sanctions by Western countries after the regional crisis caused by the Ukrainian conflict in 2014. The volume of Sino-Russian bilateral trade has fallen sharply and the growth rate of trade has begun to decline.

In 2017, China's exports to Russia increased by 14.8% to US$42.876 billion. Russian exports to China increased by 27.7% to reach 41.195 billion US dollars. China has maintained Russia's status as the largest trading partner for eight consecutive years, and Russia ranks 11th among China's major trading partners.

From the perspective of trade structure, the trade structure between China and Russia is relatively simple and has remained unchanged for many years. Similarly, Russia's exports of energy to China account for a relatively large proportion of energy raw materials, and its commercial structure and foreign trade are fully consistent with each other, fully reflecting the characteristics of Russian energy as an economic entity. Russia has the absolute competitive advantage of resource endowment, mainly exporting oil and gas products, military products, mineral products, animal products and wood products. Russia became China's largest oil source country for the first time in 2016. Russia's oil and gas exports to China reached US$25 billion in 2017.

China's main exports to Russia are labor-intensive products, such as textiles, clothing, footwear, home appliances and other consumer goods. Along with the adjustment of China's overall foreign trade structure, the proportion of machinery and equipment exported by China to Russia has also increased, accounting for nearly 50%. However, such products are still dominated by general technology-intensive products such as telecommunication recording equipment, office equipment and home appliances, and lack of high-tech products. However, China's exports of consumer goods, cars and home appliances have suffered as inflation, reduced disposable income and the plunged ruble in Russia.

From the perspective of trade subjects, China and Russia are accompanied by a shift in trade patterns from chaotic and disorderly to orderly free trade. Some small enterprises lacking economic strength gradually withdraw, and large and medium-sized enterprises with strong economic strength and standardized operations occupy the trading position of the Sino-Russian trade market. However, from the perspective of long-term cooperation and development, China attaches more importance to deep cooperation with Russia's large enterprises in the aviation field, space and other high-tech fields. Russia also hopes to further cooperate with China's powerful enterprises in high-tech fields such as construction, processing, and new materials.

II. China and Russia cooperation in investment

As an important emerging economy, Russia has a large potential investment market. After Russia entrying into WTO, it relaxed restrictions on investment in foreign and domestic investors and encouraged foreign and private capital to invest in the Russian market. In recent years, Russia have introduced the leapfrog development area and the Vladivostok free port policy, and introduced the preferential policies for attracting investment successively. Russia is the 43rd most competitive country and region in the world, according to the " world economy BBS global competitiveness report 2016-2017". Russia ranks 40th among the world's 190 economies in ease of doing business in the "World Bank's Business Environment Report 2017". In order to attract foreign capital, Russia has introduced a series of preferential policies and measures to attract foreign capital, such as simplifying the procedures for foreign capital, lowering the threshold for foreign investment by amending relevant laws and regulations, and set up a "Russian direct investment fund". Foreign investment mainly focuses on manufacturing, mining, wholesale and retail trade, financial insurance and real estate.

China's investment in Russia has shown a relatively rapid growth Since 2011. In terms of country rankings for Russian investment, China has become the fourth largest investor after Cyprus, the Netherlands and Luxembourg. China's direct investment flows to Russia were US$ 1.293 billion in 2016. The stock of direct investment was US$ 12.98 billion by the end of 2016. The total scale of China's investment in Russia, including direct investment and equity investment, reached US$ 32 billion which is the fourth largest investment entity in Russia.

China's direct investment in Russia is concentrated in the fields of forestry mining, agriculture, mining, commerce, services, processing and construction. China attaches due weight to cooperation with large Russian investment projects and tries to sign intergovernmental agreements as much as possible to ensure the smooth progress of the project. In the projects invested by China, China emphasizes the use of Chinese labor and the purchase of Chinese equipment. Although Russia's cooperation in certain areas is called bilateral cooperation, the implementation of the project relies entirely on the strength of the Chinese side. This is especially true for infrastructure development projects in border areas. Chinese workers who work in Russia have been concentrated in the agriculture, construction and wood processing industries in the Far East and Siberia. Chinese enterprises signed 255 contracts for new contracted projects in Russia In 2016. The newly signed contracts amounted to 2.695 billion US dollars. In the same year, 2728 laborers were dispatched, and 14540 laborers still were in Russia at the end of the year.

China's investment in Russia is currently concentrated in infrastructure such as energy, mining, forestry, construction real estate and transportation and electricity, with a small portion of investment flowing into other industries, including finance, technology, automotive and agriculture. China's direct investment in Russia is mainly concentrated in Moscow and surrounding areas, St. Petersburg and surrounding areas, the Russian Far East, Tyumen, Kaluga, Rostsko, Tula, Lipetsk and Ulyanovsk region and other places. The more famous Chinese investment in Russia includes the following projects. Sinopec and Russian oil company (Rosneft) jointly acquired a 96.7% stake in Udmurt Oil Company for US$3.49 billion in 2006. Russian oil company (Rosneft) subsequently acquired 51% of Udmurt Petroleum Company from Sinopec. Equity. The acquisition has made Sinopec the most abundant Chinese company in Russia, and this is the first time China has entered the Russian oil industry. CIC subsidiary invested US$2.04 billion in a 12.5% stake in Uralkali in 2013. Novartis Russia and PetroChina signed a sale and purchase agreement for a 20% interest in the Yamal LNG project in September 2013, which entered into force in March 2014. According to the agreement, China is responsible for assisting in attracting funds from Chinese financial institutions; it also stipulates that Novatec will supply China with a long-term contract of not less than 3 million tons of LNG per year. China Silk Road Fund purchased a 9.9% stake in the Yamal Gas Integration Project invested by the latter from Novartis, Russia in 2015, and will provide a loan of approximately 730 million Euros for a period of 15 years to support the construction of the Yamal project. In addition, China National Petroleum Corporation holds 20% of the Yamal gas integration project, and China holds a total of 29.9% of the Yamal project. After several years of hard work, AVIC Forestry invested nearly US$400 million to build a forestry project in Tomsk, Russia, including a 200,000 cubic meter MDF project, a 200,000 cubic meter project, and a 100,000 cubic meter rotary cut Single board projects, etc. Fuyao Glass completed the first phase of the automotive glass project invested in Lucca in 2015, which has two phases, with a total investment of approximately US$200 million. Haier invested US$50 million to build a refrigerator manufacturing plant in the city of Cherni in the Republic of Tatarstan, Russia in 2016. Chengtong Group invested 350 million US dollars to build the Greenwood International Trade Center in Moscow in 2010, which is China's largest business investment project in Russia. At present, the Greenwood International Trade Center is undergoing the expansion of the second phase of the project. The second phase of the project is expected to invest RMB 1.4 billion and will be completed by the end of 2018. Chinese enterprises investing in construction projects also include Great Wall Motor plans to build an automobile manufacturing plant with an annual output of 150,000 vehicles in Tula, Lifan Motors plans to build an automobile manufacturing plant with an annual output of 60,000 vehicles in Lipetsk, and Conch Group It is planned to build a cement plant with a daily output of 5,000 tons of cement in Ulyanovsk region. The newly signed large-scale project contracting projects include Huawei Technologies Co., Ltd. to build the Russian St. Petersburg Agricultural Products Logistics Park, and China Chemical Engineering Seventh Construction Co., Ltd. to build the Xibuli company ZAPSIB-2 project.

Though China’s direct investment in Russia is unsatisfactory, investment in equity and other forms of loans and financing in various fields in Russia are quite large. These equity investments, project loans and financing have undoubtedly played a role in helping Russia, which is now under Western economic sanctions and in urgent need of funds to develop its economy. China Development Bank alone has a total of US$62 billion in loans and other off-balance sheet financing to Russia in recent years, accounting for about one-sixth of China's National Development Bank's external loan financing.

Russia's investment in China is mostly concentrated in manufacturing, construction and transportation. There are some of the successful projects that are being currently implemented in Russia:

— In 2010, Russia's "Petroba Pavlovsk" company (ГК «Петропавловск») and Heilongjiang Jianlong Group Co. (Heilongjiang Jian long Group Co.) jointly established a factory in Shuangyashan City, with a total investment of 1.8.Tens of millions of dollars;

— In 2005 and 2008, Rusal Group invested US$150 million to purchase two plants in Shanxi Province for the production of cathode blocks;

— A refinery invested by PetroChina (НК «Роснефть) and PetroChina in Tianjin. The total investment of this project is 5 billion US dollars, and Russian investment accounts for 49% of the total investment. At present, the project has passed the technical feasibility study. Construction began in 2014;

— Gubikesh Engineering Plastics Co., Ltd., jointly invested by Kubyshev Nitrogen Technology Co., Ltd. (ОАО «Куйбышев Азот») and Shanghai Heyi Trading Company, was established in Shanghai with a total investment of 18 million US dollars and Russian investment of 8.1 million dollar;

— Shanghai Longxin Special Cable Co., Ltd., jointly established by the Institute of Nuclear Physics of the Siberian Branch of the Russian Federation and Shanghai Heavy Steel («Чжун ган»), has a total investment of 4.83 million US dollars and Russian investment of 11,000 US dollars.

Russia invested 69 projects in China in 2013, down 5.5% year-on-year; investment in China was $22.08 million, down by 26.2% compared to $29.92 million in 2012. In order to avoid high tax rates, most of the investment funds of Russian companies are transferred to China through branches registered in Hong Kong, which is one of the main reasons for the decrease in statistical data.

Compared with the rapid development of Sino-Russian trade, the slow progress in investment cooperation between China and Russia is mainly due to the existence of more barriers and the failure to reach a state of facilitation. The realization of Sino-Russian investment facilitation can not only optimize the allocation of production factors, but also promote the rapid development of Sino-Russian trade, promote Sino-Russian technological progress, develop new economy, increase employment, and add new impetus to Sino-Russian economic growth. To this end, the Chinese and Russian governments have also taken active measures.The Chinese and Russian governments signed the " Sino-Russian Investment Cooperation Program Outline" to provide a more efficient and convenient security system and promote bilateral investment cooperation through the establishment of an inter-governmental cooperation mechanism in 2009. The “ Sino-Russian Investment Fund ” was established in October 2011, mainly for investment in major bilateral cooperation projects between China and Russia, bilateral trade-related projects, Russian privatization and internationalization projects. During the Russian President's visit to China in 2012, he signed a document on the establishment of a Russian-Chinese investment project, which further deepened and promoted the cooperation between the two sides in the investment field. At the 4th meeting of the Standing Working Group on Russia-China Investment Cooperation in Moscow, the Russian Ministry of Economic Development and the China Development and Reform Commission signed the “Memorandum of Understanding on Implementing the Outline of the Sino-Russian Investment Cooperation Plan” in August 2013. This memo aims to change the

traditional form of economic cooperation over the past 20 years and transform it into a higher and more innovative mode of cooperation. In May 2015, President Xi Jinping visited Russia, and China and Russia signed 32 agreements with a total value of 25 billion US dollars. These include China's multi-billion dollar infrastructure loans to Russia, a $6 billion credit line agreement between the Russian Federal Savings Bank and the China Development Bank.

The investment projects between China and Russia have been promoted and implemented by funds jointly invested by the two countries under the background of the "Belt and Road" construction. The Sino-Russian investment fund is one of the most active institutions and has achieved remarkable results. Four Sino-Russian investment cooperation plans were announced at the St. Petersburg International Economic Forum in May 2014, involving infrastructure, real estate and mining. These projects will be implemented through the Sino-Russian Investment Fund. In the same year, the Sino-Russian investment fund also cooperated with OJSC Far East and the Inner Lake Development Fund for a total investment of 400 million U.S. dollars to build the first cross-border bridge between China and Russia on the Heilongjiang River. Upon completion, it will greatly ease the backwardness of Sino-Russian trade infrastructure in the Far East border trade and promote the growth of border trade between the two countries. In addition, the fund also established a RMB 5 billion fund with Tianjin Yongtai Hongqi Group to invest in tourism infrastructure and pension communities in China and Russia. In the future, the fund will also tend to be more diversified in the investment field. In addition to traditional industries such as agriculture, natural resources and energy, it is also interested in the logistics, medical and telecommunications services industries.

It is believed that the step-by-step realization of China's new Silk Road construction will bring new impetus to investment cooperation between China and Russia, and the key areas for investment will be infrastructure. As a party wishing to introduce investment, Russia should strive to build an appropriate investment environment and minimize the obstacles to investment in the administrative management system and bureaucratic atmosphere.

III. The construction of the Silk Road Economic Belt promotes the deep development of Sino-Russian energy cooperation

The energy cooperation with Russia in the "Belt and Road" construction plan is a very important part. Russia has a positive attitude towards this, and Sino-Russian energy cooperation is also more strategic for both sides.

1. Sign the oil and gas agreement and expand the scale of energy cooperation.

In May 2014, China and Russia finally reached a 30-year long-term gas supply agreement for the eastern section of the natural gas pipeline after more than 10 years of negotiations. "The Memorandum of China-Russia Eastern Natural Gas Cooperation Project" between the governments of China and Russia, and "the China-Russia Eastern Gas Supply and Sale Contract" , between the Petroleum and Natural Gas Corporation of China and the Natural Gas Industry Corporation of Russia were signed in Shanghai. The signing of the big contracts means that two giant gas fields will be developed to ensure that the annual gas supply reaching 38 billion cubic meters, and the scale of energy trade has made a qualitative leap between the two countries. China and Russia agreed to implement the solution to the pipeline construction and related financing and technical issues as soon as possible, and ensure that the goal of supplying gas in 2018 and gradually increasing the gas supply volume will be achieved.On November 9 of the same year, the two countries also made substantial progress in their cooperation in the western pipeline. China and Russia signed the "Memorandum on Cooperation in the Field of Natural Gas Supply from the Russian Federation to the People's Republic of China through the western pipeline", and the "Memorandum on The Russian West Route framework agreement for supplying natural gas to China between CNPC and the Russian Natural Gas Industry Corporation". Under the agreement, Russia will supply an additional 30 billion cubic meters of natural gas to China annually through the Altai pipeline from western Siberia for 30 years. The two agreements signed in 2014 accounted

for 17% of China's consumption by 2020, making China the largest natural gas customer in Russia over Germany.

Russia has a bad relationship with the United States and European countries, and Russia has turned to China to promote its economic growth due to the Ukrainian crisis. Since then, the “One Belt, One Road” platform has ended the 10-year gas supply negotiation between China and Russia. The two countries have successfully reached an agreement, which also makes Russia more dependent on China not only in economy but also politics, and China is a stable consumer country with huge market potential and rich financial resources, which has also made the two countries more dependent.

2. Strengthen energy infrastructure construction and promote interconnection.

At present, China's natural gas pipeline imports are all from Central Asia. Three transnational natural gas pipelines were completed and put into operation in Central Asia . The fourth line of the Central Asian natural gas pipeline D was officially started in September 2014. Most of China's natural gas imports and its natural gas fields are now from the west, while the gas market is in the east. Along with the deepening of oil and gas cooperation between China and Russia, the construction of the eastern line will greatly improve the gas supply pattern for China. The eastern gas pipeline was started in Russia in September 2014 and will be completed in 2018. This move means that the global land-based gas supply will shift to the Asia-Pacific region and may extend to other Asia-Pacific countries in the future.

During President Xi Jinping's visit to Russia, the two sides signed a cooperation agreement on the supply of crude oil to China through the East and West. The total annual supply of crude oil will reach 22 million tons, including gradually increasing the supply of 15 million tons of oil from the existing Sino-Russian crude oil pipeline on the east line. The total oil supply will reach 30 million tons from 2018. Oil is supplied to China from 7 million tons to 10 million tons per year through the Sino-Kazakhstan crude oil pipeline. In the future, Russia will supply 9.1 million tons of crude oil to the Sino-Russian Tianjin refinery through shipping annually. Russia's annual supply of crude oil to China is expected to increase to 49 million tons.

The total length of newly built oil and gas pipelines in China was about 6,800 kilometers in 2014, which was 4,800 kilometers less than the newly built 11,600 kilometers in 2013, a drop of 41%. The construction of oil and gas pipelines slowed down noticeably. Among them, the newly built natural gas pipeline is 4,500 kilometers, a decrease of 4,000 kilometers compared with the same period of last year, a drop of 47%; the newly built crude oil pipeline is 800 kilometers, a decrease of 1,100 kilometers compared with the same period of last year, a drop of 58%; the newly built oil pipeline is 1,500 kilometers, an increase of 300 kilometers, an increase of 25%. With the signing of the oil and gas agreement between China and Russia, the transportation demand for pipeline oil and gas will increase, and the infrastructure construction of the “Belt and Road” energy cooperation will be promoted in a timely manner. The “ Belt and Road” strategy will be held at the National Energy Administration to promote international energy cooperation. At the meeting, the energy system was deployed to pragmatically promote the major tasks of the “ Belt and Road” energy international cooperation, that is, the infrastructure construction was first carried out, such as oil and gas pipeline network and power corridor in the area of energy channel construction. At the same time, the investigation on the construction of offshore oil and gas transportation channels between the two countries will be carried out to diversify the energy transportation mode and reduce the safety pressure of pipeline transportation.

3. Take the advantage of the complementary nature of energy and economy and promote diversified development of cooperation.

Although the energy economy of China and Russia is highly complementary and the attitudes of the two governments are positive, the oil and gas cooperation between China and Russia still has enormous challenges.

From the perspective of oil and gas exploration, the resources of Russia's Eastern Siberia are significantly smaller than those of Western Siberia, and the mining cost is high. The focus of the

Russian oil industry will continue to focus on the development of tight oils in Western Siberia and deep-sea resources in the northwest in long term. The Russian government and companies did not want foreign participants to enter the Russian domestic market in the past 20 years. If the mining area moved to the deep Arctic region, Russia was forced to change its previous attitude of rejecting foreign aid due to lack of experience, manpower and equipment. Cooperation with other countries. This is the case with the Yamal project. Petro China made a major breakthrough in oil and gas cooperation with Russia in January 2014. Petro China and Russia Novate completed the delivery of a 20% stake in Yamal Liquefied Gas (Ямал СПГ) and officially start to take a step in the competition for oil and gas resources in the Arctic region. Russia has encountered a series of sanctions imposed by the West, which has brought challenges and risks to the advancement of the Yamal project. Petro China, which is responsible for the operation of the project, fulfilled the duties of the Chinese shareholders and actively carried out the work of signing the engineering contract, researching the gas field development plan, financing negotiation, sales and signing of the shipping contract. The Yamal project had completed 26 production wells by the end of 2014, accounting for 44% of the number of production wells required for the first production line. The number of contracts signed for project construction accounted for 88.5% of the contracts to be signed. With outstanding business strength, Chinese companies have undertaken a number of service and manufacturing contracts with a total value of nearly $6 billion.In particular, Ryukyu Engineering Co.Ltd. and Ocean Engineering Co.Ltd. competed with internationally strong competitors and successfully won the bid. They jointly obtained the module manufacturing contract for the international LNG project of LNG, filling the gap in the construction project of China National Petroleum Corporation LNG module. In addition, China Petroleum Technology Development Corporation, China Petroleum Materials Corporation, and CNPC Tianjin Ruisi Company are all actively involved in the Yamal project. This cooperation has changed the previous model of loan-to-oil exchange between China and Russia. It is a model of integration of investment, financing and trade. That is, China promotes project financing and participates in industrial chain cooperation such as factory construction and natural gas development.

4. Exploration and development cooperation of oil and gas-shale gas in non-traditional fields.

China and Russia have broad space for cooperation in non-traditional oil and gas exploration and development, and development and utilization of new energy technologies. Russia's shale oil and gas reserves are huge, and the ratio of production to storage is obvious. China's shale oil and gas exploration and development technology is constantly maturing and has strong capital. According to the Russian government's regulations allowing independent producers to export shale gas, the independent natural gas producer "ОАО «НОВАТЭК») and China National Oil and Gas Group Corporation signed a cooperation agreement on the Yamal shale gas. It stipulates that China will acquire 20% shares of the natural gas project in the northwestern Siberia and more than 3 million tons of shale gas every year. President Putin has suggested that Russia will massively exploit shale gas in 2017, and believe that there will be great potential for cooperation between China and Russia in this field.

IV. The construction of the Silk Road Economic Belt promotes the cooperative development of China and Russia in other fields

The deep development of the “Belt and Road” has promoted cooperation between China and Russia in the fields of non-energy, high-tech and innovation. The two countries have also signed important cooperation strategies in transportation and finance. The Chinese government and enterprises have actively participated in the construction of the Far East Development Zone, the Moscow Electric Vehicle Project, the Ulyanovsk Regional Radiological Medical Project, the Penza Agricultural Machinery Assembly Production Project, and the Amur High-tech Development Zone Project. In addition, China-Russia cooperation in high-speed rail, automobile, coal, electronics, and aerospace technology has made great progress.

1. Sino-Russian high-speed rail cooperation

The transformation of the Siberian Railway was the focus of cooperation between China and Russia after the " Belt and Road" plan was proposed in China. The two countries signed nearly 40 important cooperation documents during the visit to Russia by Chinese Premier Li Keqiang in mid-October 2014, of which the signing of the “Memorandum of understanding on Sino Russian high-speed rail cooperation”. China and Russia will promote the construction of the Eurasian high-speed transport corridor from Beijing to Moscow, and give priority to the implementation of the high-speed rail project from Moscow to Kazan according to the agreement. Russia plans to build a 5,000-kilometer high-speed railway by 2030. Russia hopes to increase the level of its national railway network by introducing Chinese technology and capital. At present, China has proposed to invest 300 billion rubles (about 37.2 billion yuan) in Russia's first high-speed rail, Moscow to Kazan high-speed rail construction, of which 50 billion rubles (about 6.48 billion yuan) will be invested by Chinese companies, the rest by China Bank loans. The Sino-Russian high-speed rail cooperation will enhance Russia's infrastructure and will promote the trade cooperation between China and Russia.

2. Sino-Russian cooperation in coal and power development

In order to promote the “ Belt and Road” strategic plan, the Chinese and Russian groups have signed large projects to promote regional development. Shenhua Group, China's largest coal producer, signed a contract with Russian state-owned Russian technology group to invest up to US$10 billion in September 2014. The contract stipulates that the two companies will jointly develop coal mines, industrial and transportation infrastructure, build power generation equipment and high-voltage transmission lines that can export electricity to China in Siberia and Russia's Far East. This project can not only solve the energy shortage problem in the Russian Amur region and northern China, but also meet the power demand in the region. In this project, the Russian Technical Country Group and Shenhua Group will jointly develop the Augujin coal mine area in the Amur region and build the “Hope Port” coal port in the Primorsky Territory, while the power station and copper mine processing plant will be built near the mining area.

3. Cooperation in the aerospace field

the Chinese and Russian governments are committed to the implementation of the “Memorandum of Understanding on Sino-Russian Cooperation in the Field of Economic Modernization” under the background of the “ Belt and Road” initiative, and promote effective cooperation between the two countries in the fields of pharmaceutical, shipbuilding and transportation machinery manufacturing, strictly stipulate the "Sino-Russian Space Cooperation Outline 2013-2017", and jointly carry out research on basic scientific research such as Earth observation and rocket engines to further deepen the long-term mutually beneficial cooperation between the two countries in the aerospace field. China and Russia will strengthen cooperation in the field of high technology. China and Russia signed the “Memorandum of Understanding on Cooperation between the China Satellite Navigation System Committee and the Russian Federal Space Agency in the Field of Satellite Navigation” in 2014, to promote cooperation in civil aviation and aviation manufacturing, and expand cooperation in the fields of satellite navigation, aircraft engines, processes and materials, promote cooperation in the field of information and communication, and communicate in wireless communication equipment and integrated circuit design.China and Russia implement joint research and development, joint manufacturing, joint promotion and application, joint implementation of innovation results transformation and joint expansion into the international market through innovative cooperation, and strive to achieve mutual benefit and win-win.

4. Cooperation and investment in the automotive industry

The technological content of Chinese investment in Russia is also constantly improving on the “ Belt and Road” platform. Many large Chinese auto companies have laid out the Russian market, creating opportunities and gaining market share. At the same time, Chinese car companies use technology to create brand effects. The factory of Great Wall Motor in Tula is the first car manufacturer in China that covers the four production processes of stamping, welding, painting

and final assembly. The investment is 500 million US dollars, and the annual output will reach 150,000 vehicles. Huatai Automobile also recently announced its intention to build a factory in Russia.

V. China's "Silk Road Economic Belt" and Russia's Eurasian Economic Union

Putin, the then Prime Minister of Russia, proposed the idea of establishing the Eurasian Union in his programmatic article "The New Integration Plan for the Eurasian Region - The Future Is Born Today" in October 2011. He proposed that the republics of the former Soviet Union should form the "Eurasian Union" to establish a super-state complex similar to the European Union, which would serve as a bridge between Europe and the Asia-Pacific region, become a powerful entity in the world structure and be on an equal footing with the United States, the European Union and China. Putin accelerated the process of integration of the CIS and focused on building the Eurasian Union after he returned to the Kremlin in 2012. The official name of the Eurasian Union was also identified as the Eurasian Economic Union. On May 29, 2014, Russia, Kazakhstan, and Belarus signed the "Treaty of Eurasian Economic Union" and announced that the Eurasian Economic Union will be officially launched on January 1, 2015. According to the definition of the treaty, the Eurasian Economic Union is an international organization of regional integration and possesses the status of international law. The three countries promised to realize the free flow of goods, services, capital and labor by 2025, and strive to coordinate the policies of major economic sectors represented by energy, processing, agriculture and transportation. The ultimate goal is to establish a similar economic union of the European Union and forms a unified market covering 20 million square kilometers with a population of 170 million and a gross domestic product (GDP) of nearly 3 trillion US dollars[1].

There are many similarities between Russia's "Eurasian Economic Union" and China's "Silk Road Economic Belt". There are overlaps in the members, crosses in the geographical area, and similar in function, but they are totally different in the geopolitical and geo-economic trends. China has proposed the construction of the "Belt and Road", focusing on its economic development and regional cooperation, and does not seek the leading role of regional affairs, and does not divide the sphere of influence. However, the Eurasian Economic Union is Russia's initiative to promote space integration in the post-Soviet Union. Russia hopes to develop regional cooperation, enhances mutual trade and investment levels, and achieves a strategic arrangement for the long-term goal of economic diversification. The Eurasian Economic Union has the meaning of establishing a strategic alliance of politics and security [2].

China and Russia signed the "Joint Statement of the People's Republic of China and the Russian Federation on the Construction of the Silk Road Economic Belt and the Construction of the Eurasian Economic Union" in May 2015. The joint statement stated: "We should expand investment and trade cooperation, optimize trade structure and foster new growth points for economic growth and employment expansion. We will promote mutual investment facilitation and capacity cooperation, implement large-scale investment cooperation projects and jointly create industrial parks and cross-border economic cooperation zones. We will promote the expansion of domestic currency settlement in the areas of trade, direct investment and loans, achieve currency swaps, and deepen cooperation in the fields of export credit, insurance, projects, trade finance and bank cards，promote regional and global multilateral cooperation to achieve harmonious development, expand international trade, and develop and promote effective rules and practices in Global trade and investment management that meet the requirements of the times" It can be seen that finding a feasible point of convergence between the Eurasian Economic Union and the construction of the "Silk Road Economic Belt" and promoting the integration of Asia and Europe will be an opportunity for all-round cooperation and development between China and Russia，and the key to a comprehensive strategic partnership between China and Russia.

Conclusion

China's the " Belt and Road" development strategy is a grand strategy for seeking common development and mutual benefit for all countries along the route. China and Russia are two neighboring countries. The Eurasian Economic Union initiated by Russia and the "Silk Road Economic Belt" have many similarities. The "Silk Road Economic Belt" and the Eurasian Economic Union can be docked, which will better promote economic and trade cooperation between the two countries, strategically expand and deepen the pragmatic cooperation between the two sides in a broader perspective, expand mutual openness, deepen the integration of interests, better promote the development and revitalization of the two countries, expand the common economic space of Europe and Asia, and promote The development and stability of the entire Eurasian continent.

References:

1. Li Jianmin, Silk Road Economic Belt, Eurasian Economic Union and Sino-Russian Cooperation,《the Russian Journal》, No. 5, 2014г (Vol. 4, No. 23).
2. Ouyang Xiangying, Eurasian Union - Prospects for the development of post-Soviet space Russia, 《the Russian Central Asian Eastern European Studies》, No. 4, 2012г.
3. Yuan Xintao, National Strategy Analysis of the “Belt and Road” Construction,《The Theory Monthly》 , November 2014г.
4. Панов А. М. , “Экономический пояс шелкового пути”: переспективы российско-китайского сотрудничества, 《Проблемы современной экономики》, №3(51), 2014г.
5. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.

UDC 339.138

A.A. Soboleva
Postgraduate 2-year student
Department of World Economy and International Economic Relations
St. Petersburg State Economic University
soboanastasiya@yandex.ru

DIGITALIZATION. DIGITAL-MARKETING AND ITS IMPACT ON THE FUTURE

Abstract. Nowadays, customers have access to information any time and any place they want or need it. Thanks to the Internet and globalization, most people on the globe are able to access the information via computers, tablets or mobiles. What business owners should remember is that everyone can influence the image of their companies via ex. Social Media and you can be sure that your customer feedback will be more trustworthy for others to read than your own one. There are many new digital marketing trends and strategies that are evolving in the current high-tech era and businesses now *need* to use them to succeed in their efforts. The key is to stay on top of the trends and figure out what is the best for your business today. What was worked for you in a previous year may not work this year as new trends continuously keep on emerging.
Keywords: digitalization, marketing, digital-marketing, entrepreneur, business, economy, Internet

Digitalization is changing our world. To date, the number of devices connected to the network exceeds the population of the globe. Smart devices generate huge amounts of data, changing our lives, as well as ways of doing business in all sectors of the economy. However, most of the infrastructure has yet to undergo a digital transformation. So in the railway and energy sectors, construction, automotive industry and road economy, there are practically no significant changes. Certainly, somewhere digital solutions have already been introduced, but we are just beginning to disclose the potential of a completely digital, electrified, information, intellectual infrastructure. It will help to solve current and future challenges for sustainable development at the global level.

More than half of the world's population lives in cities. There is no doubt that we live in an urbanized world and the global challenges of the 21st century are directly related to urban agglomerations (Juan Clos, Executive Director of the United Nations Human Settlements Program).

The urban population is increasing by 1.5 million people every week. By 2050, more than two thirds of the world's population will live in cities - and yet in 1950 this figure was no more than one-third. As cities grow, the way we create and manage urban infrastructure becomes critical to global economic and social development.

Connections in our world are becoming ever closer. Billions of intelligent devices and mechanisms generate huge data sets, linking the real and virtual worlds. The transformation of these vast amounts of data into value-added is a key success factor. Watch the video to find out more [4].

Digital breakthrough - increase in efficiency by combining real and virtual worlds& Our world is becoming digital, from personal devices to complex industrial systems.

Today, every entrepreneur knows that advertising is a motor of commerce that provides sales of a particular product or service. In this case, the most important thing is to get the maximum amount of sales with the invested funds, which will ensure a greater profit. Actually, this is the meaning of any business, to invest a minimum, but to get the maximum, whatever kind of business the entrepreneur does. With the ubiquitous spread of the global Internet, everyone got access to its advantages, if earlier for business it was just a site that clients could find in search of search engines, but now it is contextual Digital-marketing. Digital marketing encompasses all marketing efforts that use an electronic device or the Internet.

Businesses leverage digital channels such as search engines, social media, email, and their websites to connect with current and prospective customers [3].

The main goal of the digital marketing strategy is to promote Internet resources working in the areas of large, medium and small businesses. With the help of digital technologies, making your business product more popular is much easier than using only offline promotion channels. Let's take a look at the household example. Suppose you need to sell something. You can promote your goods in many ways. The first is to walk around the neighbors and offer them something to buy, the second - to advertise in the newspaper, the third - to hang the ad in a public place, the fourth - to place the same ad on the Internet. We have arranged these options in terms of the degree of significance - from less influential to the most productive. It is clear that if the neighbors buy something from you, then no one will know about your offer. As for the fourth option, it is the most productive. The optimal solution is to use all options at once, or at least a few [4].

Digital marketing allows you to maximize the effectiveness of your product or service. This is due to the following features:

1. Wide audience coverage. Millions of people use the Internet, interactive television, have accounts in social networks. Digital marketing distributes information about your offer on all these channels.
2. Interactivity. Digital marketing allows not only to advertise its goods and services, but also to establish contact with the audience.
3. The ability to identify the target audience and send a marketing campaign to it.
4. It is convenient to monitor analytics. You can test different approaches and find out what works and what does not, adjust the marketing campaign.

Let's list the results that can be achieved with the help of the digital marketing strategy:

1. increase in the number of sales at minimum costs;
2. increase the existing audience;
3. the possibility of a gradual return of investments invested in the project;
4. creation of inexpensive and simultaneously effective solutions for the promotion of their goods and services.

Let's consider in more detail, with the help of which tools the business is promoted in digital marketing.

Local networks. A local network is a set of computers connected together. It can be created both within the framework of one enterprise, and within a whole microdistrict. The capabilities of local networks are quite extensive - in addition to sharing files, their users can receive useful information, communicate with each other, etc. If the administrator of the local network will send certain information on it, it will reach all users, as a result of which they will be considered a potential audience (buyers of the goods, customers of the service, etc.).

Cable and digital television. Currently, almost every cable network has its own television channel of information and advertising nature. On it it is possible to distribute the corresponding information. Also, if you have certain equipment, you can use technology such as "creeping line".

Interactive monitors. Today they are available in the metro and many chain stores. Another possibility for the promotion of goods and services.

Mobile applications. In case of high-quality development, they can be used to exchange files, communicate, disseminate useful information, etc. That is, in fact, here are the same features as in local networks.

Social networks. One of the most effective ways to promote goods and services among the audience, selected by certain criteria.

Email promotion. It consists in sending out letters with offers of goods and services to certain users. It is important to correctly write such a letter so that it does not get into spam.

Search engine marketing - website promotion in search engines.

Infographics. Users receive a description of complex specific information in an accessible and understandable form: drawings, graphs, charts.

Of course, before the advent of Internet marketing, there were a variety of ways to promote, at some time the most popular were the methods of promotion via radio or television, for smaller businesses, these were newspapers where the cost of advertising was less. With the advent of the Internet, the cost of promotion has become small, and the opportunities have become, as with the promotion on some federal channel, which pleased all business representatives. Now more and more customers are focused on the promotion of the site on SEO-Artist, which is in contextual marketing.

Contextual advertising has many advantages and almost no disadvantages. Contextual ads are easy to target, considering the number of partner sites with such giants as Yandex and Google, you can easily enter into various topics, and you need to put more than others if you want your ad to be shown to the user first, because in contextual advertising networks auction principle, so the price for advertising is always true, the one that should be.

Contextual advertising, in addition to these advantages, gives a promotion specialist due to special codes for tracking the user's behavior on the site, maximum information about the potential client. You can find out what interests the user and always adjust the campaign settings and specific ads. Of course, to effectively attract users with the help of Digital Marketing, it is necessary to trust the promotion of specialists who have led a lot of customers in such a way not to one ten clients, only then this method will be much more effective than advertising on radio or television.

Modern entrepreneurs have long appreciated all the benefits of attracting customers from the global Internet information network. Thanks to it, any entrepreneur can attract a huge number of customers and customers who are unavailable through the old channels of attracting customers. This gives truly limitless opportunities for those who can offer excellent service and goods and are not afraid of strong growth. Now almost any product that is not close to the latest technologies can be sold online, it is only necessary to determine the budget for promotion and find competent specialists.

Create a website and fill it with content - this is only half the story. In order for it to really come to target visitors, it needs to be promoted on the Internet. This is quite difficult, because online competition is getting stronger every day, and now it is really very strong, because thousands of entrepreneurs are operating in every sphere. And here it is important to have a competent CEO who can leave behind your competitors. However, the promotion specialists are not just in demand, but very popular, and you simply may not have the specialist for your needs.

The best digital marketers have a clear picture of how each digital marketing campaign supports their overarching goals. And depending on the goals of their marketing strategy, marketers can support a larger campaign through the free and paid channels at their disposal.

A content marketer, for example, can create a series of blog posts that serve to generate leads from a new ebook the business recently created. The company's social media marketer might then help promote these blog posts through paid and organic posts on the business's social media accounts. Perhaps the email marketer creates an email campaign to send those who download the ebook more information on the company. We'll talk more about these specific digital marketers in a minute.

Here's a quick rundown of some of the most common digital marketing tactics and the channels involved in each one.

Search Engine Optimization (SEO). This is the process of optimizing your website to "rank" higher in search engine results pages, thereby increasing the amount of organic (or free) traffic your website receives. The channels that benefit from SEO include [3]:

- Websites.
- Blogs.
- Infographics.

Content Marketing. This term denotes the creation and promotion of content assets for the purpose of generating brand awareness, traffic growth, lead generation, and customers. The channels that can play a part in your content marketing strategy include:

- Blog posts.
- Ebooks and whitepapers.
- Infographics.
- Online brochures and lookbooks.

Social Media Marketing. This practice promotes your brand and your content on social media channels to increase brand awareness, drive traffic, and generate leads for your business. The channels you can use in social media marketing include:

- Facebook.
- Twitter.
- LinkedIn.
- Instagram.
- Snapchat.
- Pinterest.
- Google+.

Pay-Per-Click (PPC). PPC is a method of driving traffic to your website by paying a publisher every time your ad is clicked. One of the most common types of PPC is Google AdWords, which allows you to pay for top slots on Google's search engine results pages at a price "per click" of the links you place. Other channels where you can use PPC include:

- Paid ads on Facebook.
- Promoted Tweets on Twitter.
- Sponsored Messages on LinkedIn.

Affiliate Marketing. This is a type of performance-based advertising where you receive commission for promoting someone else's products or services on your website. Affiliate marketing channels include [3]:

- Hosting video ads through the YouTube Partner Program.
- Posting affiliate links from your social media accounts.

Native Advertising. Native advertising refers to advertisements that are primarily content-led and featured on a platform alongside other, non-paid content. BuzzFeed-sponsored posts are a good example, but many people also consider social media advertising to be "native" -- Facebook advertising and Instagram advertising, for example.

Marketing Automation. Marketing automation refers to the software that serves to automate your basic marketing operations. Many marketing departments can automate repetitive tasks they would otherwise do manually, such as:

- Email newsletters.
- Social media post scheduling.
- Contact list updating.
- Lead-nurturing workflows.
- Campaign tracking and reporting.

Email Marketing. Companies use email marketing as a way of communicating with their audiences. Email is often used to promote content, discounts and events, as well as to direct people toward the business's website. The types of emails you might send in an email marketing campaign include:

- Blog subscription newsletters.
- Follow-up emails to website visitors who downloaded something.
- Customer welcome emails.
- Holiday promotions to loyalty program members.

- Tips or similar series emails for customer nurturing.

Online PR. Online PR is the practice of securing earned online coverage with digital publications, blogs, and other content-based websites. It's much like traditional PR, but in the online space. The channels you can use to maximize your PR efforts include:

- Reporter outreach via social media.
- Engaging online reviews of your company.
- Engaging comments on your personal website or blog.

Inbound Marketing. Inbound marketing refers to the "full-funnel" approach to attracting, engaging, and delighting customers using online content. You can use every digital marketing tactic listed above throughout an inbound marketing strategy.

Digital marketers are in charge of driving brand awareness and lead generation through all the digital channels -both free and paid - that are at a company's disposal. These channels include social media, the company's own website, search engine rankings, email, display advertising, and the company's blog [3].

The digital marketer usually focuses on a different key performance indicator (KPI) for each channel so they can properly measure the company's performance across each one. A digital marketer who's in charge of SEO, for example, measures their website's "organic traffic" - of that traffic coming from website visitors who found a page of the business's website via a Google search.

Digital marketing is carried out across many marketing roles today. In small companies, one generalist might own many of the digital marketing tactics described above at the same time. In larger companies, these tactics have multiple specialists that each focus on just one or two of the brand's digital channels.

Marketers are expected to take full control of the customer experience in the coming years. The Economist Intelligence Unit asked 499 Chief Marketing Officers and Senior Marketing Execs about how they saw marketing evolving, and also conducted some in-depth, one on one interviews with CMOs from leading brands such as Unilever and JPMorgan Chase. They were looking to find out what key technologies and trends will drive change in the marketing industry over the next four years, and the results make for interesting reading.

Mobile has been a massive trend in marketing for years now, and makes up over half of web traffic. The internet of things is a bit newer and more exciting, but it isn't yet quite clear exactly how it will affect marketers. There are plenty of opportunities and predictions, but anyone who tells you they know exactly how the IoT will be affecting your marketing in 2020 is either lying or profoundly misguided.

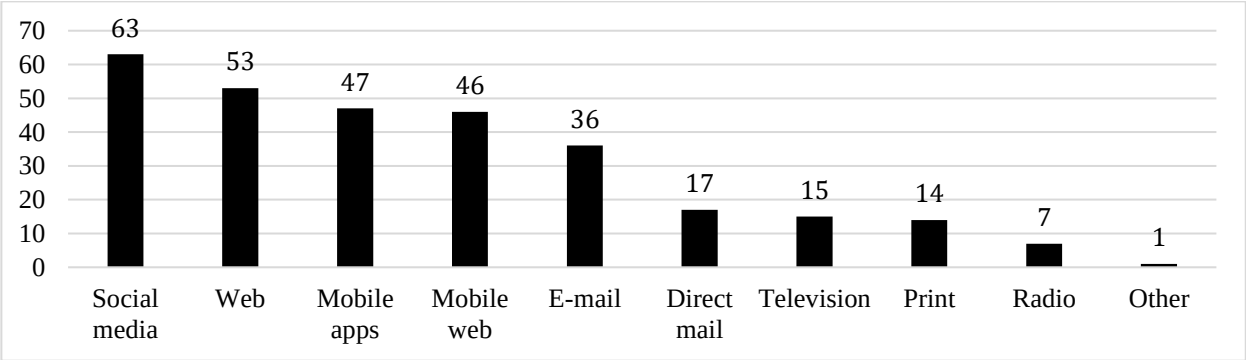


Fig. 1. What are the top channels through which you expect your customers to experience your organisation's marketing efforts in 2020? Source: Economist Intelligence survey, 2016

Personalisation technologies have been around for a while, but with the amount of data now available at their companies fingertips, CMOs are starting to realise the opportunity and

personalisation is really coming into its own. Geo-targeting is just the start, and shouldn't be your objective. Advanced marketers should be building statistical models to ascertain what signals mean customers are interested in certain products and serving them accordingly.

A generally new and groundbreaking technology for marketing that appears here is block-chain technologies, but again it isn't clear how this will evolve by 2020. The implications for banking, law and intellectual property are starting to be realised, but how it will prove useful for marketers isn't yet clear.

Marketers are often seen as struggling to review the effectiveness of their campaigns. In fairness, this isn't all there fault. It's very hard to prove an uptick in sales is the result of a new ad campaign, a change of the messaging on the website or a whether it was just because of a big push by the sales team.

However, digital technologies provide massive opportunities for more accurately measuring key metrics and seeing how marketing is affecting sales. Calculating the all important ROI is only possible when you have accurate data on what is driving traffic and conversions.

Marketers are looking to rely less on customer acquisition stats and more on ROI, which after all is the ultimate objective of any marketing campaign. This makes sense, and is an admirable objective. However, if you think you'll be able to measure for ROI in four years time, you should be asking yourself, why can't we measure for ROI now? No technological breakthrough will come along in the next four years which will let you wave a magic wand and have your ROI calculated for you.

The technology to be able to model ROI by measuring all kinds of data already exist, and if you think you'll be doing so by 2020 you should start planning the implementation now [5].

References

1. Газуль С.М. Бизнес и облака // Сборник материалов 7-й международной научной конференции «Информационные технологии в бизнесе». — СПб.: Изд-во СПбГУЭФ, — 2011. — С. 134-135.
2. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.
3. Hubspot. What is digital marketing [Электронный ресурс]. – Режим доступа: https://blog.hubspot.com/marketing/what-is-digital-marketing
4. Siemens. Ingenuity for life [Электронный ресурс]. – Режим доступа: https://www.siemens.com/ru/ru/home/kompaniya/klyuchevye-temy/digitalization.html
5. Smart Insights. Actionable Marketing Advice [Электронный ресурс]. – Режим доступа: https://www.smartinsights.com/manage-digital-transformation/digital-marketing-2020-glimpse-future/

UDC 339.5

S. Men,
Associate professor, School of Economics,
Renmin University of China,
menshulian@aliyun.com

THE ROUTE CHOICE OF OPTIMIZING SINO-RUSSIAN GOODS TRADE

Abstract: Both China and Russia are big developing countries. In 2018, the trade volume between the two countries is expected to reach or exceed 100 billion US dollars. However, in general, the goods trade of the two countries is not high, the degree of intra-industry trade is low, the structure is long-term single, and mainly occurs in resource-intensive and labor-intensive sectors with low added value. This paper attempts to solve the specific problems and propose a feasible path to further optimize the trade of goods between the two countries, and to create favorable conditions for promoting the process of Asian-European economic integration and the multi-polarization of the world economy.
Keywords: optimization, Sino-Russian trade in goods complementarity, unity.

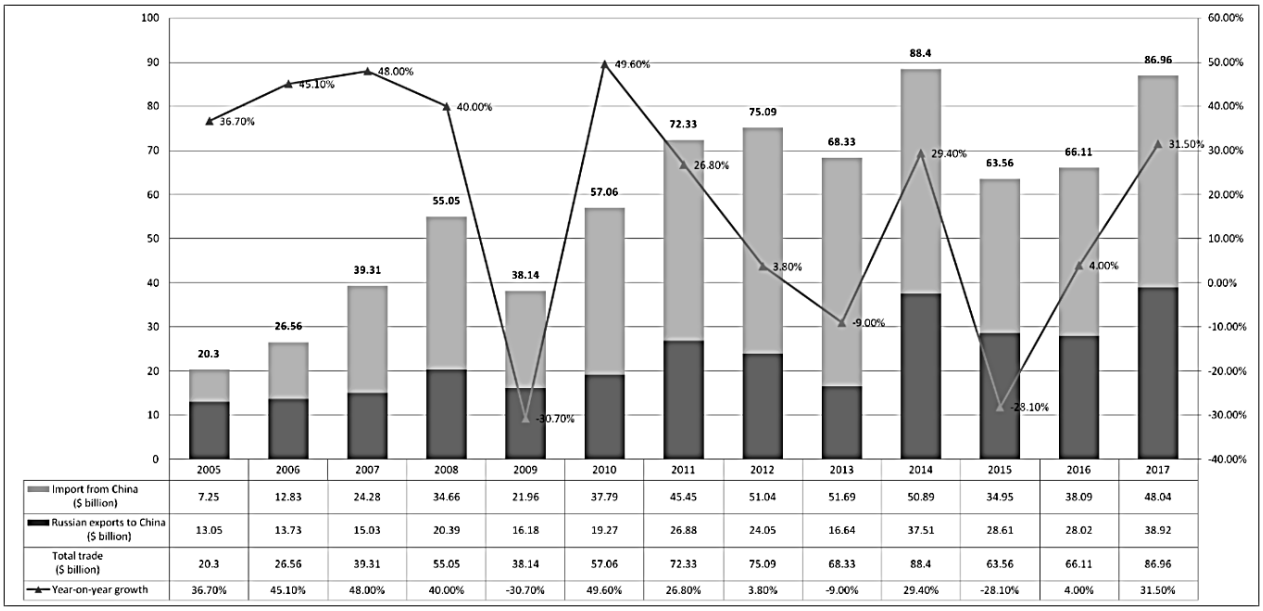
1. The two countries' goods trade presents two major characteristics

Feature 1: The overall volatility rises but the scale is still limited

After China's accession to the WTO in 2001, the development of foreign trade accelerated, and the total volume of Sino-Russian trade in goods showed a volatility (see Figure 1). Since 2005, Sino-Russian trade in goods has grown at an average annual rate of 19%. In 2009, affected by the financial crisis, Sino-Russian trade in goods showed a negative growth of 30.7%, and the trade volume was only 38.14 billion US dollars. However, in 2010, it basically recovered to the pre-crisis level, reaching $57.06 billion. In 2011, it was 72.33 billion US dollars, and in 2012 it increased to 75.09 billion US dollars, far exceeding the pre-crisis scale. In 2015, it was affected by the international economic downturn and oil prices under 28.1%. It resumed development in 2016, reaching $86.96 billion in 2017. From January to May this year, the bilateral trade in goods between China and Russia was US$40.83 billion, an increase of 31.4%. Among them, Russia's exports to China were US$21.21 billion, up 42.9%; Russia's imports from China were US$19.62 billion, up 20.9%. Trade growth ranks first among China's major trading partners. It should be said that both in the long run and from the current development situation, the growth trend of the trade in goods between the two countries is very obvious. However, compared with the scale of trade between China, the United States, China and Japan, especially the good political interaction between China and Russia, the annual trade volume of less than 100 billion US dollars is still insufficient.

Feature 2: The trade structure is single and long-term solidification

For a long time, Russia's exports to China have been dominated by resource-based commodities. Mineral products, wood and products, and chemical products are the top three categories of Russian exports to China, with mineral products accounting for the largest proportion. The top three categories of Russian imports from China are mechanical and electrical products, textiles and raw materials, base metals and products, of which mechanical and electrical products account for the largest proportion. Statistics show that China's crude oil imports from Russia reached a record high in 2016. Russia has become China's largest source of crude oil imports, the largest source of electricity imports and the fifth largest source of coal imports.



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Import from China ($ billion)	7.25	12.83	24.28	34.66	21.96	37.79	45.45	51.04	51.69	50.89	34.95	38.09	48.04
Russian exports to China ($ billion)	13.05	13.73	15.03	20.39	16.18	19.27	26.88	24.05	16.64	37.51	28.61	28.02	38.92
Total trade ($ billion)	20.3	26.56	39.31	55.05	38.14	57.06	72.33	75.09	68.33	88.4	63.56	66.11	86.96
Year-on-year growth	36.70%	45.10%	48.00%	40.00%	-30.70%	49.60%	26.80%	3.80%	-9.00%	29.40%	-28.10%	4.00%	31.50%

Figure 1. China-Russia trade in goods in 2005-2017. Source: Russian Customs

2. The main cause of the problem

2.1 The industrial product structure of both parties is complementary and singular

The structure of import and export commodities of China and Russia basically reflects the characteristics of their respective industrial product structures and their comparative advantages, and fully reflects the complementarity of the economies of the two countries. But it is worth noting that if the two sides are only satisfied with this inherent complementarity, it is possible to lose more and better development space.

In terms of resource endowments, China and Russia have enormous differences and strong complementarities. In addition to its rich oil and gas resources, the Russian side is also rich in mineral resources. China is rich in labor resources. Russia is in a leading position in basic scientific research, and China is more prominent in the use of scientific and technological achievements. Russia's industrial structure is relatively simple, and its manufacturing industries such as light industry, electromechanical and consumer goods are weak. Although it has a relatively strong heavy industry base, its technology and equipment are generally aging. China is a veritable “manufacturing power”. The output of more than 220 kinds of industrial products ranks first in the world, and the net export of manufacturing ranks first in the world. The added value of manufacturing industry accounts for 20.8% of the world.

From the perspective of the structure of bilateral trade in goods, on the one hand, China's exports to Russia are mainly textile yarns, fabrics and their finished products, labor-intensive goods such as clothing and clothing accessories and shoes, and capital-intensive products mainly revolve around general industrial machinery. Instruments and equipment such as equipment and machine parts, in general, China's exports to Russia have lower added value. On the other hand, Russia's exports to China are mainly petroleum-based resource products. The trade between the two countries has long been a resource-intensive and labor-intensive exchange of inter-industry trade. The degree of intra-industry trade is very low and the structure is relatively stable. This model As a result, there has been no new growth point in the long-term trade between the two countries, and it is impossible to achieve longer-term development space.

2.2 The willingness and ways of mutual trust and cooperation between the two countries need to be further strengthened

Compared with the enthusiastic situation of high-level political interaction between the two countries, there are still problems such as insufficient subjective will and insufficient path methods for non-governmental exchanges, especially economic exchanges between the two countries. For

example, it is necessary to fundamentally change the impression that the Chinese people formed "low quality and low price" in the early stage of border trade, and it really needs a process. It is necessary to continuously improve understanding, enhance mutual trust, and constantly enhance the actual recognition.

2.3 Lack of more effective mechanisms and means to transform political interaction advantages into economic interaction advantages

There is a more successful case. In 2006, Russia's exports of mechanical and electrical products to China were only 270 million U.S. dollars, a significant difference from China's exports to Russia of 6.38 billion U.S. dollars. In order to solve the problem of balanced development of trade in mechanical and electrical products between the two countries, during the Russian President Putin's visit to China in March 2006, China hosted the "China-Russia Economic and Business Summit Forum" and set up a sub-forum of mechanical and electrical products. The relevant government departments of the two countries indicated that they will take various measures to increase support for enterprises to expand Russia's exports of mechanical and electrical products to China. During the China National Exhibition held in Moscow in March 2007, the China Electromechanical Chamber of Commerce organized more than 100 domestic enterprises to negotiate in Russia, signing the import contract value of mechanical and electrical products amounting to 509 million US dollars. Since 2015, mechanical and electrical products have become the third largest category of Russian exports to China. In 2017, Russia's exports of mechanical and electrical products to China rose to 2.191 billion US dollars. The current problem is that the effectiveness and sustainability of such operational models have yet to be tested; second, the long-term stable operational mechanism from political interaction to economic interaction has not yet taken shape. Therefore, it is difficult to see results in the field of material trade.

3. Related countermeasures

Under the background of the current anti-globalization trend of thought, trade protectionism, and unilateralism, further optimize the structure of Sino-Russian trade in goods, expand the scale of trade, effectively deal with Sino-US trade frictions, and impose sanctions on the Russian economy by the United States and other Western countries. It is of great significance to continuously expand economic and trade cooperation between the two countries and work together to build a community of human destiny. Specific measures can be considered from the following aspects:

3.1 Research to establish a long-term operational mechanism from political interaction to economic interaction

On the basis of good political and diplomatic exchanges between governments, a relatively stable economic interaction platform and mechanism will lay a solid foundation for the development of foreign trade relations between the two countries. It is necessary to encourage research institutions and think tanks of the two countries to strengthen cooperation and strengthen cooperation in top-level design of industry development, so as to realize the effective connection between the "Chinese Dream" and Russia's "Strong Country Dream" and "One Belt and One Road" construction and the construction of the Eurasian Economic Union. On the basis of the remarkable achievements in the cooperation of strategic large projects between the two countries in recent years, we should give full play to the positive role of the "One Belt, One Road" International Cooperation Summit Forum, the China-Russia Expo, the St. Petersburg International Economic Forum, and the Eastern Economic Forum, and make it a booster. An important platform for pragmatic cooperation between the two countries.

3.2 Promote mutual trust and cooperation with the influence of government cooperation

On the basis of national-level theme activities such as the "Year of the Country", "Year of Language", "Year of Tourism", "Year of Youth Friendly Exchange" and "Media Exchange Year", the two countries will focus on "Chinese and Russian places". "Cooperative exchange year" to achieve "full coverage" of local cooperation areas and regions. It is necessary to sum up the successful experience of local cooperation under the two mechanisms of "Northeast-Far East" and

“Yangtze-Volga River”, and actively build various platforms to create favorable conditions for exchanges and cooperation between Chinese provinces, autonomous regions, municipalities directly under the Central Government and Russian federal entities. At the same time, local cooperation and cultural exchanges in the fields of education, scientific research and tourism should be continuously increased to consolidate the foundation of mutual trust and cooperation.

3.3 Promote the construction of China-Russia free trade zone in an orderly manner

The establishment of a Sino-Russian free trade zone is of great significance to the long-term stable development of the economic and trade relations between the two countries in terms of realizing the effective connection between the strategy of revitalizing China's northeast region and the development and construction strategy of the Russian Far East. As far as the specific strategy is concerned, we must first grasp the construction of the comprehensive bonded zone. This is an important condition and key link for promoting Sino-Russian trade liberalization.

3.4 Focus on cultivating new cargo trade growth points

From the perspective of economic structure, both countries have problems in further optimizing the industrial product structure to expand export growth. For example, trade in agriculture in the two countries, especially food trade, has become a new growth point for bilateral trade. In 2017, China imported more than US$3 billion worth of food from Russia, accounting for 11% of Russian food exports, making it the largest importer of Russian food. Since 2017, China's Shandong Wuyuan Apple and Shouguang Vegetables have also entered the Russian supermarket.

In addition, as far as the export products of the two countries are concerned, further improving product quality, strengthening after-sales service, and effectively solving the issue of integrity are also important growth points.

3.5 Promote trade development with infrastructure construction

Russia is an important country along the “Belt and Road”, and the trade in goods between the two countries mainly relies on railway transportation. On the basis of the good operation of the China-Europe team, we will speed up the construction of important projects such as the Tongjiang Railway Bridge and the Heihe Highway Bridge, and strive to create an international transportation corridor for land and sea transportation, which will create more favorable conditions for the development of foreign trade between the two countries.

3.6 Continuously strengthen trade and investment facilitation cooperation

It is necessary to pay attention to Sino-Russian non-tariff trade and investment barriers, and make full use of the intergovernmental consultation mechanism to achieve trade and investment facilitation cooperation in the areas of customs clearance, commodity inspection and quarantine, food safety, and quality standards. It is necessary to strengthen customs clearance supervision such as multimodal transport and logistics, and effectively improve customs clearance efficiency. In the financial sector, it is important to promote the facilitation and cooperation of settlement methods. Specifically, it can be started from the direct exchange of border banks between the two countries and the further improvement of the settlement of Sino-Russian local currency. It is necessary to establish financial institutions through the two countries to achieve direct exchanges between the border banks of the two countries, and minimize risks such as settlement and exchange of funds for trading enterprises.

References

1. Газуль С.М. Бизнес и облака // Сборник материалов 7-й международной научной конференции «Информационные технологии в бизнесе». — СПб.: Изд-во СПбГУЭФ, — 2011. — С. 134-135.
2. Матвиенко Ю.Е. Анализ развития железнодорожного транспорта в ЕАЭС // Международный студенческий научный вестник. — 2019. — № 1.; URL: http://www.eduherald.ru/ru/article/view?id=19537 (дата обращения: 11.02.2019).
3. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.

4. Paramonov V., Strokov A., Stolpovskiy O. Stages of china's economic policy in Central Asia/ Central Asia and the Caucasus. 2010. Т. 11. № 1. С. 107-116.
5. Bao M.Trade centres (maimaicheng) in Mongolia, and their function in Sino-russian trade networks. International Journal of Asian Studies. 2006. Т. 3. № 2. С. 211-237.

UDC 339.54

X. Guan
Professor and Executive Vice Dean,
Renmin University of China, Beijing, China

M. Liu
Master of International Affairs,
University of California at San Diego, La Jolla, CA, USA

THE “ICE SILK ROAD”: CHINA AND RUSSIA’S NEW EXPLORATION OF GLOBAL ECONOMIC GOVERNANCE

Abstract. In November 2017, China and Russia officially announced the concept of cooperation between the two countries to carry out the “Ice Silk Road”. In January 2018, the "China's Arctic Policy" white paper was released, and the "Ice Silk Road" was widely concerned by all countries in the world. The "Ice Silk Road" is a common product of the changes in natural conditions in the Arctic region, the inherent needs of economic development along the line, and China's active responsibility for global economic governance. It has important strategic significance and economic value. It has a far reaching effects on global shipping pattern, energy pattern and the world economic layout. At the same time, the "Ice Silk Road" will give China and Russia a new model and new role in global economic governance.
Keywords: the “Belt and Road Initiative” (BRI), the “Ice Silk Road”, Global economic governance, the Arctic Route

I. The background, historical basis and construction status of the "Ice Silk Road"

On July 4, 2017, when President Xi Jinping met with Russian Prime Minister Dmitry Medvedev in Moscow, he clearly put forward the concept of "Ice Silk Road". Xi Jinping said that it is necessary to carry out cooperation along the Arctic Route, jointly build the "Ice Silk Road" and implement the relevant interconnection projects. In May 2017, Russian President Vladimir Putin proposed at the Belt and Road Forum for International Cooperation (BARF) that he hoped that China could connect the Arctic Route with the “Belt and Road Initiative”. Since then, President Xi Jinping has twice proposed to build the "Ice Silk Road" when he met with Medvedev in Moscow and Beijing. In January 2018, China released the white paper on China's Arctic Policy, proposing that China is willing to rely on the development and utilization of the Arctic Route to build the "Ice Silk Road" with all parties.

The Arctic has a unique natural environment and abundant resources, and most of the sea is covered by ice all year round. In recent years, with the global warming, the temperature in the Arctic has risen, and the ice and snow have accelerated melting. The strategic significance and value of the Arctic in the fields of international shipping, energy exploitation and economic development have become increasingly prominent. Especially in the context of today's economic globalization and regional economic integration, the value of the Arctic in terms of strategy, economy, scientific research, environmental protection, waterways, resources, etc. has rapidly increased and has received widespread attention from the international community. From the development willingness and early efforts of major players such as China, Russia and the Arctic Circle countries, the “Ice Silk Road” has a relatively deep historical foundation.

As the proponent and important builder of the "Ice Silk Road", China has been actively involved in the governance of the Arctic since 1999 and has been deeply involved in the exploration, development and construction of the Arctic, making important contributions to the development of the Arctic region. China has achieved fruitful results in the development and construction of the Arctic through a series of high-frequency scientific investigations, the construction of a multidisciplinary observing system, the holding of the Arctic Science Summit, and the active exploration of commercial use of the Arctic Route.

The proposal and construction of the "Ice Silk Road" not only respects the objective facts of the natural environment changes in the Arctic, but also has a high degree of forward-looking and foreseeability. The future of the "Ice Silk Road" is likely to become a new channel for international

trade, a new link for world economic ties, a new carrier for international economic exchanges, and a new paradigm for China's participation in global economic governance in the new era.

Russia's interest in the "Ice Silk Road" is even stronger. In recent years, due to the joint economic sanctions of the United States and Europe, the low oil prices and the slow transformation of its economic structure, the Russian economy has not yet seen a major improvement. Insufficient funds have severely constrained Russia's development and construction of the Arctic Route. Russia needs a partner like China that can provide sufficient funds. Therefore, on many occasions, Russia expresses its willingness to cooperate and hopes to jointly build the Arctic Route.

The Nordic Arctic countries have also proposed the "Arctic Corridor" plan. Finland, Norway and other countries plan to invest at least 3 billion euros to build a railway line from the European interior to the Gulf of Kirkenes in the northeast of Norway via the Finnish capital Helsinki. There, it will meet with the "Ice Silk Road". This also means that the status of Nordic in the Eurasian logistics channel will change from the current "end" to the "gateway". The transformation of this role will have far-reaching implications for the economic development of the Nordic countries. In addition, China and Iceland signed the "Memorandum of Understanding on China-Iceland Ocean and Polar Science and Technology Cooperation" in 2012. Finland is also eager to connect the "Ice Silk Road" with the "Arctic Corridor" plan, making it the hub country between Arctic and Eurasia.

It should be noted that the "Ice Silk Road" is still in the early stage, both conceptually and concretely. There is still a long way to go, but there is no shortage of successful models of cooperation among countries. Russia's Yamal LNG project is one of the representative achievements, which is the largest international energy cooperation project between China and Russia in the Arctic region. With the continuous advancement of the construction of the "Ice Silk Road", China and Russia will form more cooperation points, intersections and support points to promote the development of the Arctic Route and the economic development along the Northern Sea Route (NSR).

II. Several key points for participating in the global economic governance with the "Ice Silk Road"

From the beginning of the launch, the "Ice Silk Road" needs to be considered integrally based on the resource endowments of the countries involved, the advantages of China and Russia, and top-level planning and design in the shipping pattern, energy pattern and industrial structure.

a) Opening up a new pattern of world shipping economy

As a brand new trade shipping route, the "Ice Silk Road" will break the original global shipping pattern and create a new economic and trade system. It has great significance for China, where more than 90% of the goods trade depends on maritime shipping.

First, it will help shorten the shipping voyages between China and EU countries. The economic and trade exchanges between China and the EU countries need to pass through the Straits of Malacca, the Indian Ocean and the Suez Canal on the traditional route, which is much further than the Arctic Route in terms of route distance. Therefore, the Arctic Route has obvious advantages that it can connect Nordic, Eastern Europe and Western Europe within the shortest distance.

Second, it could effectively reduce shipping costs. According to estimates, if the Northern Sea Route (NSR) of the "Ice Silk Road" is fully used by 2020, it will save 50 billion to 120 billion US dollars annually for global trade and shipping.

Third, the safety of the "Ice Silk Road" has greatly improved compared with the traditional route. China's traditional maritime route to Europe is going through Western Asia, South Asia and other regions. These areas are frequently war-torn and pirate-stricken. The Arctic Route is very close to the land and mainly passes through the northern Russian seas, which has raised a lot of safety. In addition, compared with traditional international waterways, it is less affected by geopolitical conflicts and competition for sea powers by big powers. The factors such as low fuel, low freight, short queue time and high safety make the "Ice Silk Road" have important strategic significance and economic value. If it can be successfully developed and used, it will be expected

to break the existing global shipping and trade pattern and change today's global shipping and trading system. Whether it is for China or for Russia and the Nordic countries, it means opening a new era of shipping economy.

b) Building a new map of the energy economy

The energy economy is one of the important themes of the "Ice Silk Road", and the promotion of the "Ice Silk Road" will build a new map of the world's energy economy.

First, the Arctic region is rich in resources and has enormous mining value and space. In the context of the global energy shortage, the huge resources of the Arctic region, if effectively exploited, will hopefully change the world energy landscape. Related studies have shown that unexplored oil and gas resources in the Arctic account for 22% of the world's undiscovered oil and gas resources, including 30% of undiscovered natural gas and 13% of the world's oil, and most of them are located at less than 500 meters deep shore. In the context of increasing global energy shortages, if the vast resources of the Arctic region can be effectively exploited, the world energy landscape will be fundamentally reconstructed.

Second, the “Ice Silk Road” will boost the development of energy economy in the Russian Arctic region. At present, the Arctic region has become the main producing area of Russian oil and gas resources. According to Russian data, oil extracted in the Arctic has accounted for 12% of its total oil production, while extracted natural gas accounts for 85% of all natural gas production. The Russian Ministry of Natural Resources believes that the energy potential of the Arctic region has not been fully utilized. In the context of the exhaustion of traditional Russian oil and gas production bases, Russia has planned large-scale energy development projects in the Arctic. Although Russia's population in the Arctic region is currently only a little more than 1%, but the gross national product is more than 11%, and exports exceed 50%, the Arctic region has become an important economic activity zone in Russia.

Third, the “Ice Silk Road” is an important practice for China and Russia to participate in the global energy economic governance from passive follow-up to active leadership. In the past world energy economic governance, China and Russia mainly acted as followers, but the exploration of the “Ice Silk Road” represents a new and innovative way for China and Russia to open up a new cooperation mode in the world energy economic governance.

c) Weaving a new bond for economic and trade exchanges

The "Ice Silk Road" will greatly shorten the time and space of countries along the route, closely follow the economic and trade exchanges and increase the frequency of communication among countries along the route, thus building a new economic and trade exchange link in the world economy and carrying more global economic governance matters.

From the perspective of industrial structure, countries along the “Ice Silk Road” have strong industrial complementary advantages, which can more effectively build an industrial division of labor system and a trade value chain. For example, China has strong capital advantages and processing and manufacturing advantages. Russia has abundant resource reserves. Iceland has strong energy development and utilization technologies. Finland has strong advantages in the information and communication industry. The participating countries of the "Ice Silk Road" are not a competitive relationship but a cooperative and complementary relationship in economic exchanges. They can give full play to their respective comparative advantages and work together to build the "Ice Silk Road" and enjoy the fruits and benefits of interconnection.

III. The Proposal

The construction of the “Ice Silk Road” requires the collaborative participation and joint efforts of countries along the route. In order to smoothly promote the construction of the "Ice Silk Road" and give full play to its positive effects in global economic governance, we recommend that China and Russia pay more attention to the following aspects.

First, pay full attention to the leading and promoting role of China and Russia on the "Ice Silk Road". China and Russia are active advocates of the "Ice Silk Road" and have given great enthusiasm to the construction of the "Ice Silk Road". China and Russia are both world powers,

who have the strongest economic exchanges and the strongest economic complementarity among countries along the “Ice Silk Road”. They are all members of the Shanghai Cooperation Organization (SCO) and the “BRICS” and have a wide range of common interests. The above factors make the construction of the "Ice Silk Road" highly dependent on the joint efforts of China and Russia. The smooth cooperation between China and Russia will even directly determine the success of the "Ice Silk Road" construction. Therefore, in the construction of the "Ice Silk Road", the joint efforts of China and Russia need to be highly valued.

Second, continue to strengthen scientific investigations and active exploration to strengthen the infrastructure construction of the “Ice Silk Road”. In the early development of the "Ice Silk Road", the most important thing is infrastructure construction. Unlike other regions, the Arctic region has a harsh natural environment and is difficult to develop. It requires considerable effort. Therefore, it is necessary to further increase scientific research and investigation along the line countries, fully grasp the various objective natural conditions such as weather and ecology, explore the development rules of the Arctic region, form an effective development model, and effectively realize interconnection and interoperability.

Third, actively establishing an international cooperation mechanism to promote exchanges and consultations in the Arctic region. At present, a number of international cooperation mechanisms have been formed around the development of the Arctic. For example, the Treaty of Spitsbergen, which determines the status of Arctic international law, the Arctic Council of the Arctic countries, the North Pacific Arctic Conference led by the United States, Europe and Japan, the Arctic Corridor initiated by the Nordic countries, the Future Arctic initiated by Russia and other mechanisms. However, most international cooperation mechanisms may only focus on the negotiation and resolution of specific international issues, such as the delimitation of the Arctic continental shelf or shipping issues; or the Arctic strategy that is too dependent on its own country, such as the “Future Arctic” mechanism. At present, the inadequacy of the international mechanism for the development of the Arctic has affected the mutual trust between the Arctic countries and the countries outside the circle, and has restricted the formation of a multilateral mechanism for the development of the Arctic. Therefore, it is urgent to establish a sound international cooperation mechanism for Arctic governance, and conduct consultations, communication, exchanges and cooperation on the development and construction of the “Ice Silk Road” and the economic and cultural exchanges among countries along the route.

References

1. Газуль С.М., Ананченко И.В., Кияев В.И. Проектирование прототипа клиентского устройства для гибридной информационной системы поддержки образовательного процесса в вузе //Современные проблемы науки и образования. — 2015. — № 1; URL: www.science-education.ru/125-20219 (дата обращения: 16.08.2015).
2. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.
3. Evseev A.V., Krasovskaya T.M., Tikunov V.S., Tikunova I.N. New look at territories of traditional nature use – traditional nature management lands at the coastal zone of the ice silk road: a case study for the russian arctic International Journal of Digital Earth. 2018. С. 1-14.
4. Zhang D., Lan B., Yang Y. Comparison of precipitation variations at different time scales in the northern and southern altai mountains. Acta Geographica Sinica. 2017. Т. 72. № 9. С. 1569-1579.
5. Luzyanin S.G., Kortunov A.V., Karneev A.N., Petrovsky V.E., Kashin V.B., Denisov I.E., Epikhina R.A., Kulintsev Yu.V., Mamedov R.Sh., Kuzmina K.A., Huasheng Z., Huaqin L., Shi Z., Guangcheng X., Shuqing G., Yujun F., Cuihong C., Jiyong Zh. Russian–chinese dialogue: the 2018 model/ Report No. 39/2018 / Russian International Affairs Council; Institute of Far Eastern Studies of the Russian Academy of Sciences; Institute of International Studies at Fudan University. Москва, 2018.

UDC 339

F. Fang
Professor
School of Economics, Renmin University of China

H. Wang
School of Economics, Renmin University of China

ANALYSIS ON THE SINO-RUSSIAN TRADE POTENTIAL UNDER THE BACKGROUND OF "THE BELT AND ROAD" INITIATIVE

Abstract. Since the fall of 2013 when the Chinese government proposed "the Belt and Road" Initiative, more and more countries have responded to the initiative and participated in its construction. In recent years, "the Belt and Road" Initiative has become one of the key topics in academic field at home and abroad. Under the background of "the Belt and Road" initiative, this paper attempts to analyze the Sino-Russian trade potential from theoretical and empirical aspects, to build a trade gravity model for assessing the trade prospects and direction of the two countries, and to supply a longitudinal and horizontal comparative analysis in the trade potential between the two countries. in the longitudinal analysis, with the relevant data from 2005 to 2015, this paper calculated potentiality of Sino-Russian trade and estimated trade potential for recent ten years, in a whole, the analysis conducted that Sino-Russian trade has a giant potentiality, bilateral trade potential is giant, and potentiality presents uprising tendency with time lapse; in the horizontal analysis, this paper selected major 15 countries along the line of "the belt and road", calculated its comprehensive trade complementary index and trade potential index, and made a detailed analysis from national position and population, economic scale and economic development, resources endowment and comparative advantage, the analysis summed that China-Russia trade potentiality is 0.76 in 2015, which belongs to the type of giant potentiality, China-Russia trade potentiality is in the forefront along the line of "the belt and road".
Keywords: the belt and road; trade complementarity; trade gravity model; the Sino-Russian trade potentiality.

Analysis of the Sino-Russian Trade Potential in the Framework of Gravity Model

As an important concept in the field of international trade, trade potential has been widely used by academic circles to reflect the prospects of bilateral trade between two countries. The Sino-Russian trade potential refers to the ideal trade value when there is no trade resistance between the two countries. Generally, the ideal value of export trade between the two countries is calculated on the basis of the constructed trade gravity model, and the difference between the ideal trade value and the actual trade value is regarded as the potential space for Sino-Russian trade.

This paper utilizes the trade gravity model to empirically analyze the Sino-Russian trade potential. The idea of trade gravity comes from the law of universal gravitation, which was introduced by Tinbergen (1962) and Poyhonen (1963) into the field of international trade, and was widely used in the analysis of bilateral trade flows. Basic idea of model: The bilateral trade volume between two countries or regions is directly proportional to the economic aggregate between the two, and inversely proportional to the spatial distance between the two. Theoretically speaking, the trade gravity model is a simplified form of the general equilibrium model of international trade. The incomes of the two countries represent their respective productive capacities and absorptive capacities. The distance between the two countries represents the cost of trade. Specifically, the size of a country's economy determines the degree of specialization of a country in the process of international trade. The greater the degree of specialization in the production of goods in a country, the more goods the country can utilize for international trade, and thus the greater the scale of international trade, and vice versa; The length of transportation distance affects the transportation cost of trade between the two countries. The farther the two countries are, the more transportation costs are required to carry out trade, and the greater the transportation risk, which hinders the development of bilateral trade, and thus the more significant the effect, and vice versa.

As a classic model for studying bilateral trade potential, gravity model of trade has a distinct economic significance, high explanatory degree and wide application range. However, in the empirical analysis, the rest of the export resistance factors are all attributed to the random error

term except for the observable and quantifiable factors, which may lead to the estimation deviation. The mainstream method for solving the estimation deviation of trade gravity model is to add explanatory variables and control variables based on the research needs, so as to build expanded gravity model of trade.

Establishment of China-Russia Gravity Model of Trade

The gravity model of trade is generally as follows:

$$T_{ij} = A\left(\frac{G_i G_j}{D_{ij}}\right).$$

Where $T_{ij}$is the volume of bilateral trade between i and j; A is the constant of proportionality; $Y_i$and Y_j are economic scale of two countries respectively, generally expressed as GDP; $D_{ij}$is an obstructive factor, which indicates the haul distance between two countries. Generally conveyed as the distance between the capitals of two countries, it reflects the transportation costs between the countries.

In an empirical study, a gravity model of trade is generally converted into natural logarithms as follows:

$$\ln(T_{ij}) = \beta_0 + \beta_1 ln(G_i G_j) + \beta_2 \ln(D_{ij}) + \mu$$

The gravity model of trade may be reckoned as ideal state of bilateral trade, and the volume of bilateral trade calculated by such a model may be seemed as potential trade volume between two countries. Scholars continue to improve the model. Based on the Walrasian equilibrium, Linnemann (1966) introduced two new independent variables for the first time: population and trade policy; Bergstrand (1989) expanded on the basis of the original trade gravitation model in which a number of variable indicators that could affect trade were introduced. Mccallum(1995) focused on studying the influence mechanism of space distance and raised the issue of "border effect".

Based on the fundamental setting of the trade gravity model, this paper expands the topic by the following increased explanatory variables: C_{ij}--- the comprehensive trade complementary index of two countries, S_{ij}--- two-valued variable, indicating whether the two country is neighbors (if so, the assignment is 1, otherwise, it is 0), I_{ij}--- bilateral investment between the two countries, P_{ij}---two-valued variable, indicating whether the two countries have joined the WTO together (if so, the assignment is 1, otherwise it is 0), μ--- error term. The trade gravity model set in this paper is expressed as follows.

$$\ln(T_{ij}) = \beta_0 + \beta_1 ln(GG_j) + \beta_2 \ln(D_{ij}) + \beta_3(C_{ij}) + \beta_4(I_{ij}) + \beta_5(P_{ij}) + \beta_6(S_{ij}) + \mu$$

Table 1. explanation of explanatory variables

Explanatory variables	Variable meaning	Variable description
G	China's nominal GDP (billions of US dollars)	Comprehensive reflection of China's import and export capabilities
G_j	Nominal GDP of other countries (us $100 million)	Comprehensive reflection of the ability to import and export trading partners
D_{ij}	Straight line distance between the capital of China and the capital of trading partners	Reflection the transportation cost of trade between the two countries
C_{ij}	Comprehensive trade between China and its trading partners complementary index	Comprehensive reflection of the two countries trade basis
I_{ij}	Bilateral investment between China and trading partners	Reflecting the current trade tightness of trade in both countries
P_{ij}	Whether China and its trading partners have joined the WTO	Indicate whether the two country are free trade

S_{ij}	Whether China and its trading partners are neighboring countries	Indicate the transportation distance between the two countries and the tightness of their relation

Empirical Analysis on the Sino-Russian Trade Potential

As the sample, according to the all partners' intimacy with China regarding trade， this paper selects 20 countries including Japan, South Korea, the United States, Britain, Germany, Australia, Canada, Brazil, Vietnam, the Netherlands and so on, as well as 65 countries along "the one belt and one road" area including Russia, Malaysia, Singapore, Iran, India, Kazakhstan, Poland and so forth, and conducts the study with data selections from 2005 to 2015. In this paper, multiple regression analysis is conducted for the data obtained by the least square method with Stata12.0 software. The regression results are as follows:

Table 2 regression results

	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model (5)**
C	8.733*** (10.511)	11.5*** (42.559)	7.72*** (5.656)	12.297*** (2.329)	11.8*** (9.813)
$\boldsymbol{lnG}$	0.333*** (7.488)	0.723*** (20.528)	0.792*** (10.596)	0.746*** (11.411)	0.716*** (7.157)
$\boldsymbol{lnG_j}$	0.579*** (6.859)	0.277*** (75.73)	0.276** (2.392)	0.287** (2.559)	0.26** (2.392)
$\boldsymbol{\ln(D_{ij})}$	−0.545*** (-10.146)	−0.323*** (-20.566)	−0.42*** (-7.453)	−0.327*** (-22.98)	0.334*** (3.199)
$\boldsymbol{C_{ij}}$		0.275*** (76.118)	0.452*** (16.29)	0.49*** (13.59)	0.328*** (3.198)
$\boldsymbol{I_{ij}}$			0.177*** (6.568)	0.186*** (5.768)	0.164*** (15.55)
$\boldsymbol{P_{ij}}$				0.142* (1.768)	0.141* (1.878)
$\boldsymbol{S_{ij}}$					0.108 (1.233)
$\boldsymbol{R^2}$	0.722	0.828	0.989	0.991	0.990
F-statistic	0.000	0.000	0.000	0.000	0.000

where, t statistics are shown in brackets, *, ** and *** respectively represent the significance level of 10%, 5% and 1%

In the view of regression results and various statistical inspection indexes, estimated value of various parameters is not zero, variable coefficient symbol is in consistent with that of prediction, except variable index of "whether two states are neighboring countries" is not significant, all of variables are significant. With participation of other explanation variables, every variable's symbol hasn't changed and fluctuation of coefficient value is small. This paper adopted regression results of model (5), goodness of fit of model (5) is $R^2 = 0.991$, its goodness of fit is favorable. F = 18.713, F statistic is significant, which indicated that the model can basically reflect influential effects of developing bilateral trade between China and other countries.

Regression equation is shown as follow:

$$\ln(T_{ij}) = 12.297 + 0.746lnG + 0.287lnG_j - 0.327\ln(D_{ij}) + 0.49(C_{ij}) + 0.186(I_{ij}) + 0.142(P_{ij}) + \mu$$

For the estimation of Sino-Russian trade potential, this paper compares the actual value with

the theoretical value, that is:

$$\omega = \frac{T_r}{T_s}$$

In which, ω is the Sino Russian trade potential index; T_r is the actual value of bilateral trade between China and Russia. T_s is the theoretical value of the Sino Russian bilateral trade. For the classification of trade potential index, this paper refers to the classification method of Liu Qingfeng et al. (2002), which are mainly divided into: The type of potential reshaping, potential expansion and huge potential, as shown in Table 3:

Table 3.The classification of trade potential index

Types	Range of value	Characteristics of the type
The type of potential reshaping	$\omega \geq 1.2$	The import and export trade volume between the two sides has basically reached saturation, and new trade points and economic innovation are needed to promote trade growth.
The type of potential expansion	$0.8 < \omega < 1.2$	The import and export trade volume between the two sides has not yet reached saturation, but the space for trade growth is limited.
The type of huge potential	$\omega \leq 0.8$	The import and export trade volume between the two sides is far from saturation and there is huge room for trade growth.

Based on the trade gravity model derived from regression, this paper substitutes the parameters of China and Russia from 2005 to 2015 and obtains the bilateral trade simulation values of the corresponding years in China and Russia. This paper compares it with the actual bilateral trade volume between China and Russia. The potential value of Sino-Russian trade can be calculated to estimate the potential for Sino-Russian trade growth, as shown in Figure 1:

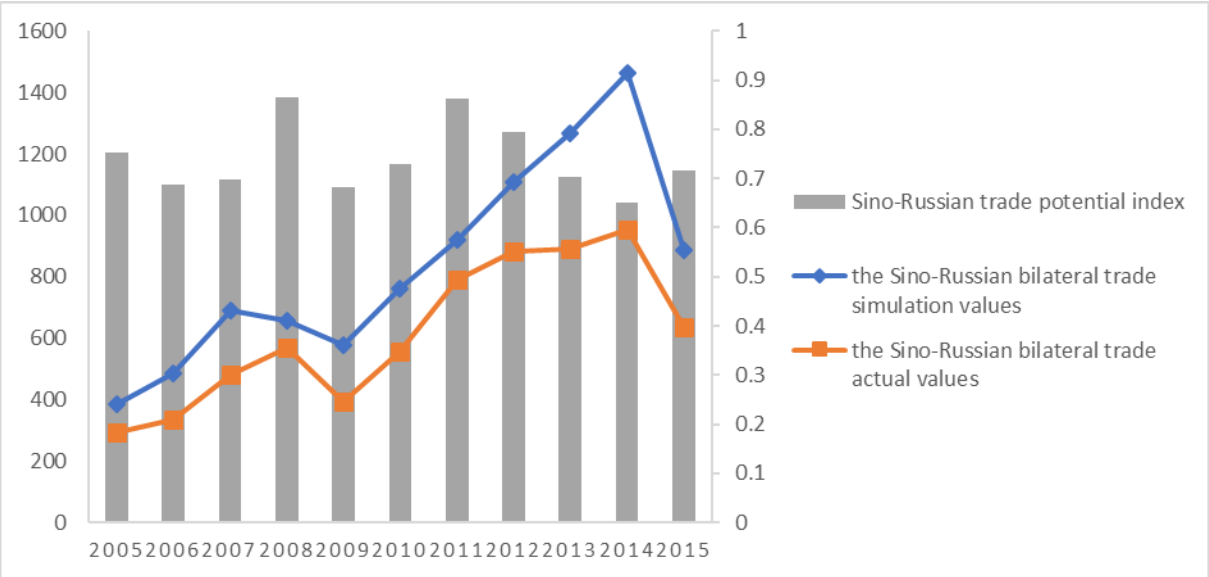


Figure 1. Sino-Russian trade potential space in 2005-2015

Data source: According to the United Nations Commodity Trade Database and the *International Statistical Yearbook*

As can be seen from the regression results and the figure above, (1) the comprehensive trade complementarity indexes have significant positive effects upon bilateral trade as shown in the regression model. This indicates that strong China-Russia trade complementarity is positive for growth of trade volume between these two countries and tends to increase. After analyzing the gravity model of trade, both China-Russia trade distance and countries' identity as members of WTO are kept unchanged as objective factors. The bilateral trade volume between China and Russia will increase with their trade complementarity in case of no major economic fluctuation,

which means economy and investment scale are steady in both countries. With opportunistic prospects, China-Russia trade has potential for further improvement. (2) The regression model shows that the countries along "the Belt and Road" Initiative have a significant positive effect on bilateral trade, which indicates that the construction of "One Belt, One Road" has a positive effect on the growth of Sino-Russian trade volume. China and Russia attach importance to the construction of “the Belt and Road”, which will promote the further growth of bilateral trade volume between China and Russia, and the prospects for China and Russia are optimistic. (3) It can be seen from Figure 1 that the simulated values of bilateral trade between China and Russia in 2005-2015 are higher than the actual value, and the gap between the two has expanded in the past three years; Through the calculation of the Sino-Russian trade potential value, we find that the Sino-Russian trade potential value is basically lower than 0.8, which indicates that the Sino-Russian trade as a whole has a huge potential, that the trade space between the two sides is huge, and that bilateral trade can be further developed. In summary, the empirical research results show that Sino-Russian trade has great potential for development and optimistic development prospects.

Trading Potential Comparison of Major Countries along the Line of “the belt and road”

Trade potential of China and Russia has been longitudinally compared from the time perspective. Next, this paper will measure trade potential indexes of China and major countries along “the Belt and Road”, in order to longitudinally compare trade potential of China and Russia. Since the line of “the Belt and Road” is long, along which there are many countries, this paper conducts in-depth research on representative countries by comprehensively considering geographic location and China’s trade volume. The research is specifically performed as follows: First of all, 65 countries are divided into 10 major areas, including East Asia, North Asia, Central Asia, South Asia, Southeast Asia, Western Asia, Eastern Europe, Central Europe, Southern Europe and North Africa according to their geographic locations. Secondly, countries whose trade volume is half of China’s are chosen among these 10 major areas as representative countries. The ratio of trade volume is not fairly high between any country of Southeast Asia, Western Asia or Southern Europe and China. Several countries between whose sum of trade ratio reaches 50% are selected as representative countries of this area. To sum up, this paper selects 15 representative countries, including Russia, Mongolia, Kazakhstan, Saudi Arabia, the United Arab Emirates, India, Malaysia, Singapore, Thailand, Egypt, Ukraine, Poland, Czech, Romania and Slovenija. Based on built trade gravity model, this paper firstly measures the complementarity indexes in composite trade between China and 15 countries along “the Belt and Road”. Subsequently, it further calculates trade potential indexes of those 15 countries in 2015, in order to longitudinally compare China and Russia in terms of trade potential.

Analysis of Overall Trade Complementarity between China and Main Countries along “the Belt and Road”

As shown in figure 2, the average value of complementary index in comprehensive trade between China and countries along “the one belt and one road” was 0.95 in 2015 from the perspective of China being a commodity exporter. On the whole, the trade complementarity between China and most countries is strong, and the trade foundation is relatively stable. Among them, China has the highest complementary index in comprehensive trade with Czech, Romania and Poland, while the trade complementarity between China and Russia is not prominent. Because China, as the "world factory", is rich in labor resources, so that China's labor-intensive industries have a comparative advantage in export. Correspondingly, the labor-intensive industries of other countries participating in international trade, especially the developed capitalist countries, do not have comparative advantages, so they are highly dependent on the Chinese market in terms of imported labor-intensive products. Therefore, the trade complementarity between China and countries along “the one belt and one road” is relatively high and at an average level.

As shown in Figure 3, from the perspective of China as a commodity importing country, there is great complementarity difference in the comprehensive trade between China and the countries along the line in 2015. Among those countries, the trade complementarity between Mongolia's exports and China's imports is the highest, reaching 2.62. In Sino-Russian trade, 90% of ore resources exported from Mongolia are transported to China. The trade complementarity between the exports of India and Singapore and China's imports is relatively low. India is also a country with abundant labor resources, and its comparative advantage in international trade is similar to that of China's. Therefore, the trade complementarity between India's exports and China's imports is relatively weak. However, the reason why the trade complementarity between Egypt's exports and China's imports is low is that North Africa has limited resources and its economic development level is relatively low. The trade complementarity of Russia's exports to China ranks fourth among the 15 countries, reaching 1.08. The degree of complementarity is relatively high, which reflects that Russia's rich natural resources match China's growing economic developing demands to a higher degree, and the trade base is stable.

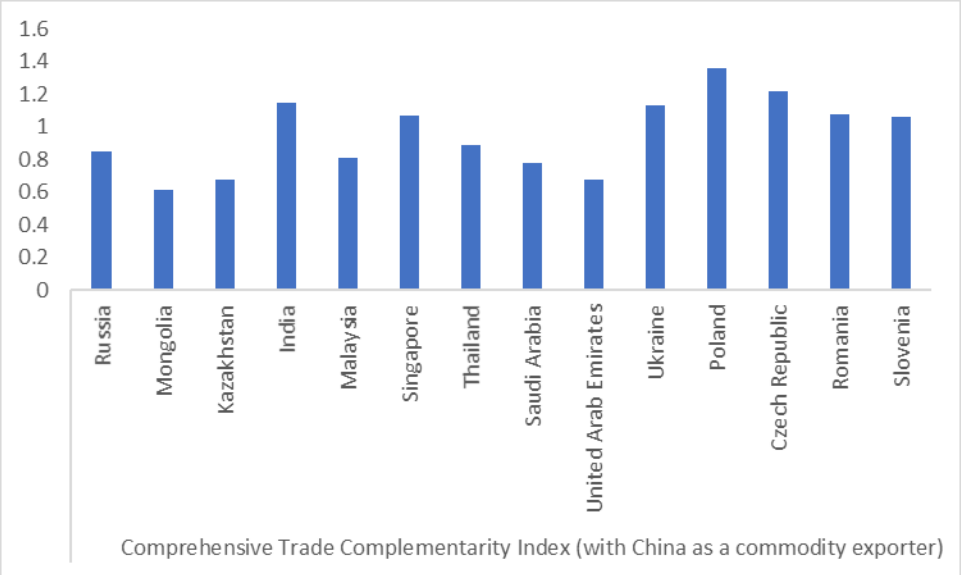


Figure 2. Comprehensive Trade Complementary Index between China and 15 Countries along "the Belt and Road" in 2015 (with China as the exporter)

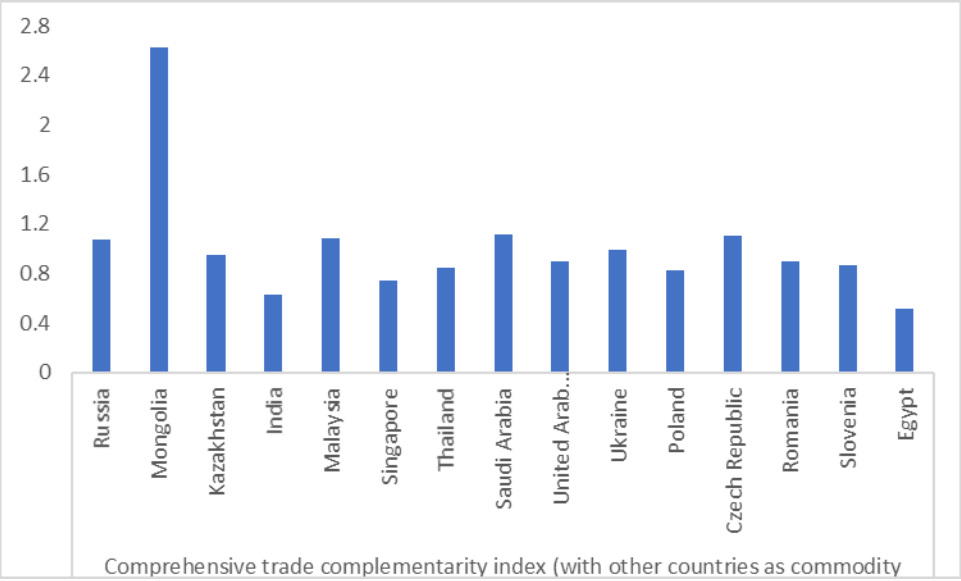


Figure 3 The comprehensive trade complementarity index of 15 countries along China's "the belt

and road" in 2015 (Taking other countries as exporters)
The data source: Commodity trade database of World Bank and United Nations

2. Analysis on the Trade Potential between China and the Major Countries along "the Belt and Road"

As shown in Figure 4, among the fifteen countries along "the Belt and Road", the trade potential index between each country in the bracket (Mongolia, Malaysia, and Saudi Arabia) and China far exceeds 1.2, which belongs to potential recreation, indicating that the trade volume between the two sides has almost reached the saturation, indicating those new trade sally port and economic innovations are needed to increase over the current amount. the trade potential index between each of the countries in the bracket (Kazakhstan, Singapore, United Arab Emirates, Poland, Czech Republic and Slovenia) and China is from 0.8 to 1.2. This is the type of potential extension. The scope for trade growth is limited. The trade potential index between each country in the bracket (Russia, India, Thailand, Ukraine, and Romania) and China is below 0.8, which indicates great trade potential between these countries and China.

In 2015, the rank of trade potential among China and the 15 representative countries along the "One Belt and One Road" from large to small, Russia was in the third place. It is shown that compared with most countries along the "One Belt and One Road", China and Russia have huge trade potential and broad trade prospect. In the following, based on trade gravity model established in this paper. we will make comparative analysis from three aspects: country location and population, economic scale and economic development level, resource endowment and comparative advantage,

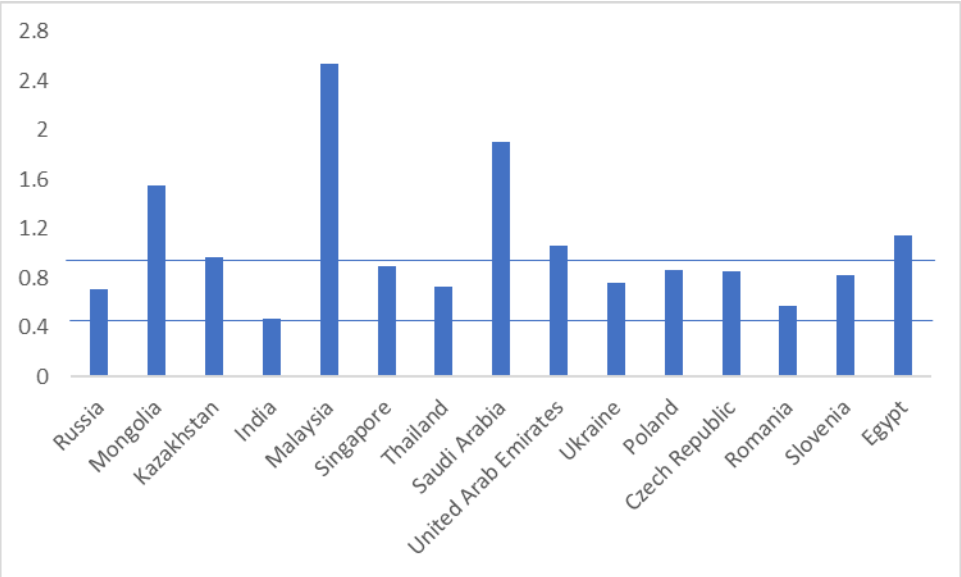


Figure 4: The index of trade potential between the 15 countries along "the Belt and Road" and China in 2015
Data sources: World Integrated Trade Solution and United Nations Commodity Trade Statistics Database

(1) Location and population

The location of the trading partner country reflects the level of transportation costs, and the size of the population affects the market size and labor structure of the trading partner countries. Generally speaking, the shorter the spatial distance between trading partners and China, the lower the transportation cost, the more favorable the bilateral trade activities, the larger the trade potential; The larger the population size, the more likely the industrial structure will be biased towards labor-intensive industries, and the weaker the trade complementarity with China. Therefore, the bilateral

trade base may be weaker. However, the larger the population size, the wider the potential consumer market is, which is beneficial to the development of bilateral trade. Therefore, the impact of population size on trade potential should also be specifically judged by both the industrial structure and economic strength of trading partners.

As shown in Table 4, if comparing the distance between the capital of China and capitals of the fifteen countries along "the Belt and Road", we find that the distance between the capital of China and the capital of Russia is in the middle place. The capitals of the two countries are far apart because both countries have large areas. In fact, the two countries are neighbors, bordering each other. The geographical advantage is very significant compared with other countries along the route, so it is very conducive to the development of the bilateral trade. For the population among the fifteen countries along the route, Russia is the second only to India, and it is the most developed capitalist country along "the Belt and Road". The combination of demographic and economic characteristics is outstanding among the countries along the route. The large population and the powerful economy make Russia a broad consumer market. As a developed capitalist country with strong industrial and trade structures, it is complementary with China, for it has a solid foundation in the trade with China.

Table 4: Location and population of fifteen countries along "the Belt and Road"

country	Distance between the two capitals (km)	Population (ten thousand)
Russia	5784.75	14398.98
Mongolia	1166.22	307.56
Kazakhstan	3651.13	1820.45
India	3779.98	133918.01
Malaysia	4346.93	3162.43
Singapore	4479.02	570.88
Thailand	3297.28	6903.75
Saudi Arabia	6594.74	3293.82
United Arab Emirates	5960.9	940.01
Ukraine	6448.8	4422.29
Poland	6937.43	3817.07
Czech Republic	7452.6	1061.83
Romania	7057.81	1967.93
Slovenia	7711.18	207.99
Egypt	7564	9755.32

Data source: world bank statistics

(2) Economic Scale and Level of Economic Development

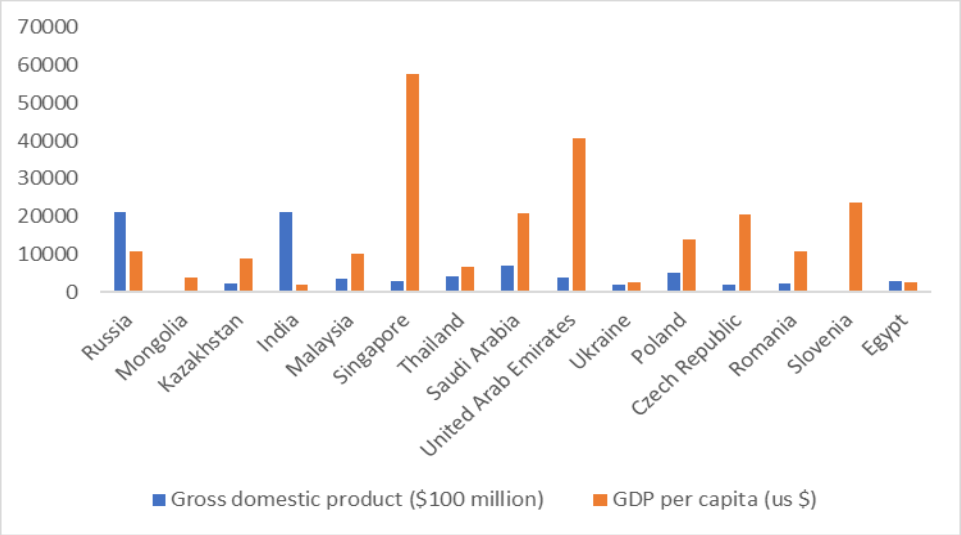


Figure 5. Total GDP and GDP per Capita of China and 15 Countries along "the Belt and Road" in 2015. Data source: database of the World Bank

As shown in Figure 5, trade partners' economic scale and level of economic development comprehensively reflect their import and export capabilities. To measure the economic scale, absolute and relative scale shall be measured. The former is measured by GDP, while the latter is measured by GDP per capita. Trade partners with greater economic scale show stronger import and export capabilities as well as broader consumer market and greater trade potential. Furthermore, it is more favorable for these partners to conduct bilateral trade. Apart from reflecting relative economic scale, GDP per capita also demonstrates the extent to which a country's economy develops. In general, higher GDP per capita is associated with more developed economy, greater potential trade complementarity with China and greater trade potential.

Russian economic aggregate is in second place along the line of "the belt and road, its ability of export and import is strong and laid a solid economic foundation for growth of trading volume between China and Russia. Meanwhile, Russia as a capitalist developed economy, its industrial structure is subject to capital-intensive and technology-intensive, Chinese and Russian trade complementarity is strong and very benefited to development of bilateral trade. Russian giant economic scale and developed economic standard improved upper limit of Chinese and Russian trade potentiality.

(3) Resource Endowment and Comparative Advantage

In terms of resource endowment, Russia ranks first in the countries along "the one belt and one road", even in the world. Forestry wood deposits of Russia at present is 80.7 billion cubic meters, and the proven reserves of oil is 8.2 billion tons and the proved natural gas reserves is 48 trillion cubic meters. In addition, Russia also is rich in natural resources such as coal, iron, manganese, copper, at the same time, with the rapid development of China's economy, China needs to import a large amount of natural resources, Russia's rich natural resources has created excellent conditions for the development of trade between China and Russia. Resources endowment advantage in Russia is very significant among the countries along "the belt and road", which plays a great role in promoting the development of bilateral trade between China and Russia, and greatly increases the trade potential between China and Russia.

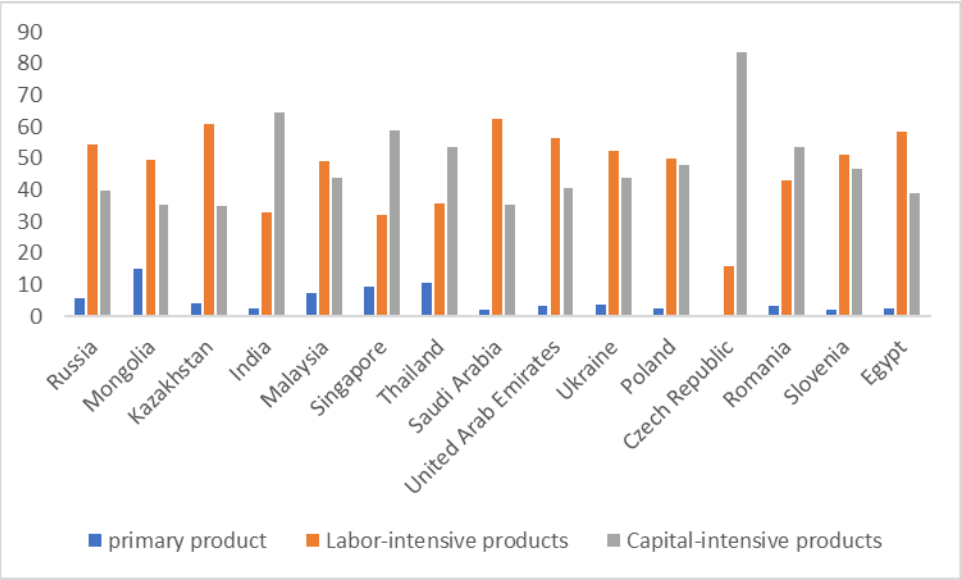


Figure 6 :The commodity structure of China's exports to 15 countries along the "the belt and road" (Unit: %)

Date source: They are calculated based on data from the United Nations commodity trade database and Customs General Administration.

Figure 6 shows that China's exports to the countries along " the belt and road" line are mainly labor-intensive and capital-intensive merchandise, among which, labor-intensive products have the largest proportion in imports of the most countries, which accords with China's comparative advantage. At the same time, it shows that China's industrial structure is optimized ceaselessly and is gradually moving from a mainly labor-intensive to a mainly capital-intensive industrial structure. China's exports to developing countries such as India are major capital-intensive products, which is primarily because India have the same comparative advantages as China. China's exports to Singapore and Czech Republic are mainly machinery and transport equipment, which shows that there are higher demands of transport equipment for the higher economic development level of the two countries. For Russia, China's export structure to Russia is very in line with China's comparative advantage, which shows that the trade foundation between China and Russia is very solid and the trade prospect is very broad.

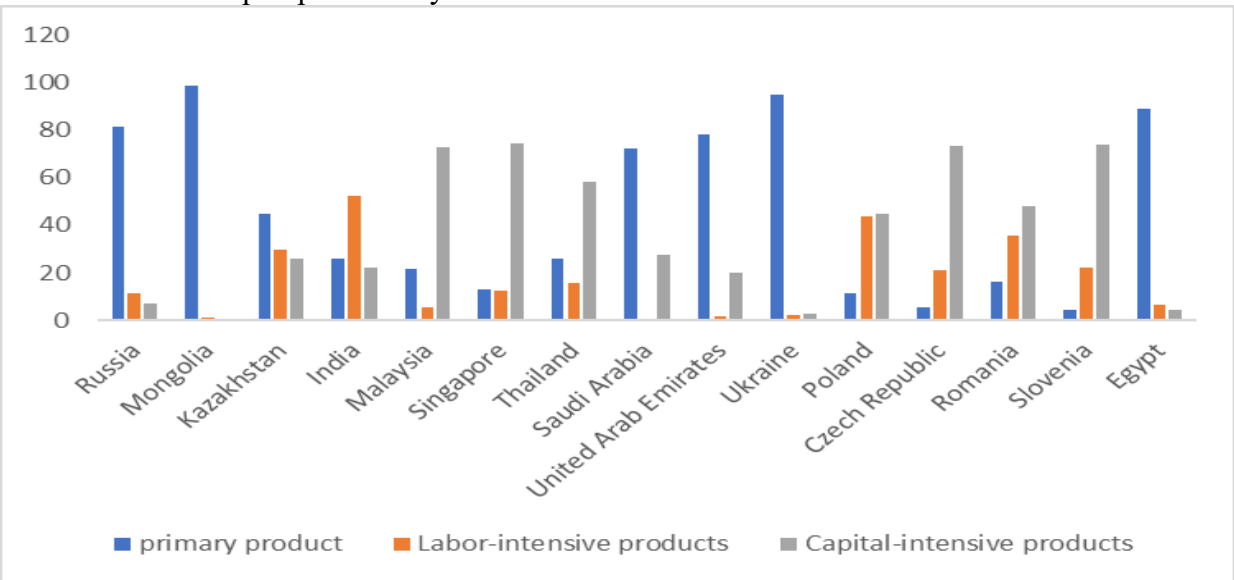


Figure 7: structure of Chinese imported commodity from 15 countries along the line of “the belt

and road” in 2015 (unit: %)
Data source: conducted by calculating United Nations commodity trade database and general customs data

Figure 7 shows that Chinese imported products from 15 countries along the line of “the belt and road” is extremely fit with resources advantages and comparative advantages of trading partners, major imported products are different according to different countries. Among them, the imported products from Russia, Mongolia, Saudi Arabia, United Arab Emirates, Ukraine, Egypt centralizes on primary commodities, which is confirmed with resources advantages of trading partners. The imported products from developed capitalist states is subject to capital-intensive products, such as Malaysia, Singapore, Czech, Romania, which is decided by comparative advantages of capital-intensive and technology-intensive of developed capitalist states. The imported products from India is subject to labor-intensive, which is because India’s comparative advantage is subject to labor-intensive products. From the aspect of Russia, its natural resources advantage is significant and accounts a high proportion in Chinese middle and primary products import, which is confirmed with demand of Chinese current rapid economic development. Meanwhile, Russia as a capitalist country has a strong capital and developed scientific technology, whose history is not profound, capital-intensive products export is also confirmed with the demand of Chinese current economic transformation. Therefore, Russia’s complementarity with China among the countries along the line is extremely high, as a developed capitalist country with rich resources, the trade foundation between China and Russian is stable and consolidated, so their trading potential is giant.

To sum up, this paper compares the Sino-Russian trade with that of the countries along “the Belt and Road”. The result shows as follows: (1) From the perspective of comprehensive and complementary trade, with China as a commodity exporting country, the complementary index of the comprehensive trade between China and the countries along “the Belt and Road” is generally high averagely, and with China as a commodity importer, the complementary index of comprehensive trade between China and Russia is 1.08, ranking the fourth among the countries along the route. On the whole, the complementary index of Sino-Russian comprehensive trade ranks high among the top countries along “the Belt and Road”, which indicates that China and Russia have a solid trade foundation and large trade potential. (2) From the perspective of trade potential value, the potential value of the bilateral trade between China and Russia is 0.76 in 2015, indicating huge potential. Among the countries along “the Belt and Road”, the Sino-Russian trade potential is in the forefront. The specific analysis is as follows: First, Russia and China, as the two largest countries, are neighboring each other. Russia has a large population and the advanced economy. Compared with other countries along the route, the transportation cost is low and the consumer market is broad while the industrial structure is complementary to that of China. Second, the Russia ranks the second with a high degree in economic development among the countries along the route. The huge and developed economy raises the upper limit for Sino-Russian trade potential. Third, Russia’s advantage in natural resources is very significant among the countries along the route, even in the world. The bilateral trade between China and Russia is in line with the resource endowments and comparative advantages of the two countries. As a developed economy with rich resources, Russia can greatly promote the development and optimization of Sino-Russian trade. So there are huge trade potential between China and Russia.

Research conclusions and policy recommendations

As the two major economies in "the Belt and Road" economic belt, China and Russia have unique geographical advantages. In addition, since the Ukrainian crisis, the shift in the direction of Russia's economic development has created opportunities for the two countries to strengthen cooperation. Starting from the new background of "Belt and Road" initiative, this paper constructs a trade gravity model and estimates the trade potential space between China and Russia. The

following research conclusions are obtained and policy recommendations are given:

1. Research conclusions

(1) In the view of longitudinal comparison of China-Russia trade potentiality, analog values of bilateral trade between China and Russia from 2005 to 2015 are higher than practical values. China-Russia trade potentiality is lower than 0.8, China-Russia trade belongs to the type of giant potential in a whole, the bilateral trade has a giant space and can develop bilateral trade further. What is worth noticing is that comprehensive trade complementarities index plays a positive role in China-Russia bilateral trade, which indicates that the high complementarity of China-Russia trade plays a positive role in Sino-Russian trade volume ; construction of “the belt and road” plays significant and positive role in bilateral trade, which shows that the relationship between Sino-Russian trade development and construction of “the belt and road” is mutually promoted and commonly developing. Building “the belt and road” is destined to bring a better bonding point for Sino-Russian trade and embody two countries’ trade comparative advantage, realizing win-win cooperation and common prosperity.

(2) From the perspective of the horizontal comparison of China-Russia trade potential, China-Russia trade potential index in 2015 is 0.76, which belongs to the type of huge potential. China-Russia trade potential ranks forefront among the countries along “the Belt and Road”. Firstly, Russia and China are the biggest neighboring countries to each other. Russia is developed capitalist countries with large population, and its transportation cost is lower than that of other countries along “the belt and road”. Secondly, the size of Russian economy is the second largest among the countries along “the belt and road”, and its economy is highly developed, which have raised the upper limit of China-Russia trade potential. Thirdly, Russia's natural resource advantage is significant among countries along “the belt and road”, the bilateral trade between China and Russia conforms to each other's resource endowment and comparative advantage. China-Russia bilateral trade has huge potential

2. Policy Suggestions

(1) Firstly, China and Russia should seize the opportunity to build “the Belt and Road” and comprehensively promote the strategic cooperation between the two countries. China and Russia should strive to build an environment and platform for friendly cooperation and enhance mutual trust, thereby enhancing the stability, mutual trust, and mutual benefit of trade cooperation. In addition, China and Russia should also make full use of the infrastructure construction projects such as "Silk Road Fund" and "New Development Bank" to promote interconnection, and prepare for broadening economic sphere and trade cooperation and improving the quality of economic and trade cooperation. At the same time, China and Russia should pay attention to improving the market risk prevention system.

(2) China and Russia should explore trade potential of two counties to identify new areas for trade growth. First, China is a manufacturing powerhouse. For its exports to Russia, products of manufacturing industries occupy a considerable proportion and are mostly low-end products. To further explore trade potential of China and Russia, on the one hand, China has to speed up its innovations and to promote development of high-end manufacturing industries and export of products from these industries; on the other hand, it is necessary to drive vigorous development of modern service industries and promote their development into new fields for growth of China-Russia trade. For instance, efforts may be made to facilitate China-Russia economic and trade cooperation in finance, information and cultures and so on. Second, on the Russian side，at present, China and Russia mainly trade with each other in energy and raw materials. However, there is still substantial space for promoting trade between these two countries in high-tech fields, civil industries and modern service industries. Besides, Russia, with a relatively solid foundation in sciences and technologies, has met the conditions for development of these fields. Therefore, Russia is supposed to impel development of industries such as hi-tech industries, civil industries and modern service industries. Meanwhile, exports of these fields shall be expanded in the trade

between China and Russia.

(3) To narrow the gap between China and Russia in "trade shortage" and to strive to eliminate the unfavorable factors in Sino-Russian trade. China and Russia have to negotiate actively to break down tariff and non-tariff barriers and promote the liberalization and facilitation of Sino-Russian trade. Both of sides should standardize trade order, and Russia should strengthen legislation and supervision, properly solve the problem of "Gray Customs Clearance", and provide a normative and orderly trade environment for the two countries; China and Russia should strengthen mutual direct investment. The empirical results show that the scale of direct investment has a positive effect on the increase of bilateral trade between the two countries. Increasing the intensity of Sino-Russian direct investment can help strengthen the tightness of Sino-Russian trade, expand Sino-Russian trade scale, improve the quality of Sino-Russian trade, and narrow the gap between China and Russia.

Reference:

1. Tinbergen J. Shaping the World Economy: Suggestion for an International Economic Policy[M]. New York: The Twentieth Century Fund, 1962:1-25
2. Poyhonen P.A. Tentative Model for the Flows of Trade between Countries[J]. Weltwirtschatftliches Archiv,1963,90(1):93-100
3. Linnemann H. An econometric study of International trade flows[M]. Amsterdam: North Holland Publishing Company, 1966: 80-85
4. Bergstrand J. The Generalized Gravity Equation, Monopolistic Competition, and the Factor-Proportions Theory in the International Trade[J]. Review of Economics and Statistics,1989(71):143-153
5. Mccallum J. National Borders Matters: Canada-U.S. Retional Trade Patterns[J]. American Economic Review,1995(85):615-623
6. Liu Qiingfeng, Jiang Shuzhu. Viewing China's Bilateral Trade Arrangement from the Perspective of Trade Gravity Model[J] Zhejiang Social Science, 2006(06):17-20

UDC 339

L. Song
Professor
School of Economics, Renmin University of China
songlifang@ruc.edu.cn

CHINA'S FOREIGN DIRECT INVESTMENT IN RUSSIA UNDER THE "BELT AND ROAD" INITIATIVE

Abstract : Since China put forward the "Belt and Road" initiative in 2013, with the rapid development of China's foreign direct investment, China's FDI in Russia has also increased rapidly, which is embodied in two aspects of scale and structure of China's FDI in Russia. But meanwhile, China's FDI in Russia also faces four problems: The Russian legal system is not sound enough, and the investment policy lacks long-term stability; China's FDI in Russia is small in terms of scale, and is mainly concentrated in resource-intensive industries; The mode of Chinese Firms' FDI in Russian is single; and China's FDI in Russia has occasional environmental problems. To further expand China's FDI in Russia, the following four policy recommendations are put forward: Strive to eliminate Russia's doubts about the expansion of China's investment cooperation with Russia; Strengthen Sino-Russian investment cooperation in the high-tech industry; Improve FDI mode of Chinese enterprises in Russia; Handle properly the relationship between China's FDI in Russia and its environmental protection.
Keywords : China ; Russia ; Belt and Road Initiative ; FDI ; Flow ; Stock

Introduction

In 2013, China proposed a major initiative to jointly build the "Silk Road Economic Belt" and the "21st Century Maritime Silk Road"（"Belt and Road", or "B&R"）, which attracted the attention of the international community, including Russia, and the positive response of the countries concerned. Correspondingly, China's foreign direct investment (FDI) in Russia has been developing rapidly. But at the same time, China's FDI in Russia is also facing some problems. Therefore, both China and Russia should actively coordinate and take corresponding measures to further expand China's FDI in Russia so as to achieve mutual benefit and win-win development.

In the study of China's FDI in Russia, the existing literature mainly concentrates on two aspects: one is to study the special issues on China's FDI in Russia. Gao Xin (2012) examined the industrial choice of Chinese enterprises' FDI in Russia from the perspective of industry, and put forward the corresponding benchmark of industrial choice [1]; Li Chuanxun (2013) analyzed the problems and reasons for Chinese investment in the Russian Far East [2]. The two is the research on the new characteristics of China's investment in Russia under the "Belt and Road" initiative. Li Jing (2015) studied the promotion strategy of China's investment in Russia under the background of the "Belt and Road" [3]; Yin Min (2018) analyzed the legal risks and countermeasures for China's investment in Russia from the perspective of law [4].

Based on the data of FDI, from the World Investment Report over the years by UNCTAD, and the Statistical Bulletin of China's Outward Foreign Direct Investment over the years by China's Ministry of Commerce, National Bureau of Statistics and the State Administration of Foreign Exchange, this paper examines the current situation of China's FDI in Russia during the period of 2003-2016, analyzes the characteristics and problems of China's FDI in Russia under the "Belt and Road" initiative, and then explores the countermeasures that both China and Russia should take to further expand China's FDI in Russia.

I. China's OFDI under the "Belt and Road" Initiative

1. The position of China's OFDI in global FDI

Since China carried out the "going global" strategy in 2000, China's outward foreign direct investment (OFDI) has been growing very rapidly. In 2016, China's OFDI flows had reached $196.15 billion, and become the second largest OFDI country over the world. In the same year, China attracted US$134 billion of FDI (foreign capital actually utilized), ranking the top three in

the world for five consecutive years. In that year, China's OFDI flows ranked second in the world by country (region), accounting for 13.5% of the global FDI flows of $1.45 trillion.

By the end of 2016, China's 24,400 domestic investors had set up 37,200 FDI enterprises in 190 countries (regions), with a total assets of $5 trillion at the end of the year. In 2016, China's OFDI stocks was $1357.4 billion, ranking sixth in the world, accounting for 5.2% of the world's total FDI stocks of $26.16 trillion (see table 1) [5].

Table 1. Ten Largest OFDI Countries (Regions) in 2016

Countries (Regions)	**Flows（US$ Billion）**	**As Percentage of Global Flows（%）**	**Countries (Regions)**	**Stocks（US$ Billion）**	**As Percentage of Global Stocks（%）**
US	299.0	20.6	US	6383.8	24.4
China	196.15	13.5	Hongkong, China	1527.9	5.8
Netherlands	173.66	12	UK	1443.9	5.5
Japan	145.24	10	Japan	1400.7	5.4
Canada	66.4	4.6	Germany	1365.4	5.2
Hongkong, China	62.46	4.3	China	1357.4	5.2
France	57.33	4	France	1259.4	4.8
Ireland	44.55	3.1	Netherlands	1256.0	4.8
Spain	41.79	2.9	Canada	1220.0	4.7
Germany	34.56	2.4	Switzerland	1130.9	4.3
World	**1.45（US$ Trillion）**		**World**	**26.16（US$ Trillion）**	70.1%

Sources：UNCTAD, *2017 World Investment Report*.

2. China's scale of FDI in the Belt and Road countries

There are 64 countries and regions along the Belt and Road, including 10 ASEAN countries, 16 West Asia countries, 7 South Asia countries, 5 Central Asia countries, 7 CIS nations, 16 Central and Eastern Europe countries, and Mongolia, East Timor and China. The B&R countries have increasingly become the important destinations for China’s OFDI.

In terms of flows, in 2016, China's FDI flows to 63 countries along the B&R amounted to $15.34 billion, accounting for 11.1% of China's total FDI flows in 2014, and 7.8% in 2016, which was higher than the growth rate of investment in other regions during the same period, especially evident after the financial crisis in 2008. It can be seen that the B&R countries are increasingly becoming the main destinations of China's OFDI, and their importance is increasingly rising. From the stock perspective, at the end of 2016, China's FDI stocks in 63 B&R countries was $129.41 billion, accounting for 9.5% of China's total FDI stocks (see Table 2) [6].

Table 2. Stocks of China's FDI in the Belt and Road Countries (2007-2016)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Belt and Road Countries（US$ Billion）	9.73	14.98	20.26	29.25	41.68	56.76	72.02	92.46	115.68	129.41
World（US$ Billion）	117.91	183.97	245.75	317.21	424.78	531.94	660.48	882.64	1097.86	1357.39
As Percentage of the World Stocks（%）	8.3	8.1	8.2	9.2	9.8	10.7	10.9	10.5	10.5%	9.5%

3. The country distribution of China's FDI in the Belt and Road countries

From the view of the country distribution, the top 10 destinations of China's FDI stocks in the B&R countries were: Singapore, Russia, Indonesia, Laos, Kazakhstan, Vietnam, the United Arab Emirates, Pakistan, Myanmar and Thailand. From 2008 onwards, Singapore became the country with the largest flows and stocks of China's FDI in the B&R countries. In 2016, China's FDI flows and stocks in Singapore amounted to $3.172 billion and $33.4446 billion, respectively, far exceeding the size of China's FDI in other countries (see Table 3). This not only matters with Singapore's industrial and financial center, developed entrepot trade, political stability, and transparent investment environment, but also closely related to similar Chinese culture. Meanwhile, Russia is the fourth major destination of China's FDI flows to the B&R countries (see Table 3), and the second major destination of China's FDI stocks to the B&R countries (see Table 4).

Table 3. Ten Major Destination Countries of China's FDI Flows in the Belt and Road Countries in 2016 (US$ Billion)

Country	Flows	Country	Flows
Singapore	3.172	Thailand	1.122
Malaysia	1.830	Pakistan	0.633
Indonesia	1.461	Cambodia	0.626
Russia	1.293	Kazakhstan	0.488
Vietnam	1.279	Iran	0.390

Table 4. Ten Major Destination Countries of China's FDI Stocks in the Belt and Road Countries in 2016 (US$ Billion)

Country	Stocks	Country	Stocks
Singapore	33.446	Vietnam	4.984
Russia	12.980	The United Arab Emirates	4.888
Indonesia	9.546	Pakistan	4.759
Laos	5.500	Myanmar	4.620
Kazakhstan	5.432	Thailand	4.533

II. Present Situation of China's FDI in Russia under the "Belt and Road" Initiative

1. The scale of China's FDI in Russia

Generally, China's FDI in Russia has shown an upward trend. China's FDI flows has expanded nearly 42 times within 14 years from $31 million in 2003 to $1.293 billion in 2016. China's FDI flows into Russia have grown rapidly since 2011, which is related to the fact that the economies of both countries are gradually getting rid of the financial crisis and the relationship between the two countries is getting closer. In 2015, China's FDI flows to Russia reached the highest $2.961 billion. In 2016, China's FDI flows to Russia accounted for 0.7% of China's total FDI flows, and ranked 15th among countries that China invested in the same year (see Table 5). From the perspective of stocks, China's FDI stocks in Russia increased from $62 million in 2003 to $12.98 billion in 2016, and it reached the highest level in 2015 with $14.20 billion. In 2016, China's FDI stocks in Russia was $12.98 billion, accounting for 1.0% of China's total FDI stocks and ranking 9th among the 190 host countries and regions that China invested (see Table 6). At present, there are 293 Chinese enterprises registered with the Chinese Embassy in Russia [7].

Table 5. Flows of China's FDI in Russia (2003-2016) (US$ 100 million)

Year	Russia	World	As Percentage of World	Year	Russia	World	As Percentage of World
2003	0.31	28.55	1.1	2010	5.68	688.11	0.8
2004	0.77	54.98	1.4	2011	7.16	746.54	1.0
2005	2.03	122.61	1.7	2012	7.85	878.04	0.9
2006	4.52	176.34	2.6	2013	10.22	1078.44	0.9
2007	4.78	265.06	1.8	2014	6.34	1231.20	0.5
2008	3.95	559.07	0.7	2015	29.61	1456.67	2.0

2009	3.48	565.29	0.6	2016	12.93	1961.49	0.7

Note: The stocks in 2003-2006 is non-financial FDI stocks.

Table 6. Stocks of China's FDI in Russia (2003-2016) (US$ 100 million)

Year	Russia	World	As Percentage of World	Year	Russia	World	As Percentage of World
2003	0.62	332.22	0.2	2010	27.88	3172.11	0.9
2004	1.23	447.77	0.3	2011	37.64	4247.81	0.9
2005	4.66	572.06	0.8	2012	48.88	5319.41	0.9
2006	9.30	750.26	1.2	2013	75.82	6604.78	1.1
2007	14.22	1179.11	1.2	2014	86.95	8826.42	1.0
2008	18.38	1839.71	1.0	2015	140.20	10978.65	1.3
2009	22.20	2457.55	0.9	2016	129.80	13573.90	1.0

Note: The stocks in 2003-2006 is non-financial FDI stocks.

The industry distribution of China's FDI in Russia

In 2016, China's FDI flows to Russia was $1.293 billion, accounting for 0.7% of China's total FDI flows and 12.1% of China's FDI flows to Europe. In terms of industry distribution, the FDI is mainly concentrated in the mining (41.9%), agriculture, forestry, animal husbandry and fishery (33.5%), manufacturing (17.2%), wholesale and retail trade (4%), leasing and business services (2.9%), financial intermediation (2.8%), scientific research and technical services (1.6%).

At the end of 2016, China's FDI stocks in Russia was $12.98 billion, accounting for 1% of China's total FDI stocks and 14.9% of China's FDI stocks in Europe. China had established more than 1,100 foreign companies in Russia and employed 22,000 foreign employees. Regarding to the industry that the FDI stocks involved in, the mining is $6.18 billion, accounting for 47.6%, agriculture, forestry, animal husbandry and fishery is $3.01 billion, taking 23.2%, manufacturing is $1.16 billion, making up 8.9%, leasing and business services is $1.12 billion, accounting for 8.6%, wholesale and retail trade is $410 million, accounting for 3.1%, real estate is $370 million, taking 2.9%, financial intermediation is $310 million, constituting 2.4% and construction is $240 million, accounting for 1.8%.

Table 7. Major Sectors of China's FDI in Russia in 2016 (US$ 100 million)

Sector	Flows	Percentage (%)	Stocks	Percentage (%)
Mining	5.42	41.9	61.82	47.6
Agriculture, Forestry, Animal Husbandry and Fishery	4.33	33.5	30.07	23.2
Manufacturing	2.23	17.2	11.57	8.9
Leasing and Business Services	0.37	2.9	11.16	8.6
Wholesale and Retail Trades	0.52	4.0	0.41	3.1
Real Estate	0.00	0.0	0.37	2.9
Financial Intermediation	0.36	2.8	0.31	2.4
Construction	-0.03	-0.2	0.24	1.8
Services to Households, Repair and other Services	-0.57	-4.4	0.07	0.5
Scientific Research and Technical Service	0.21	1.6	0.05	0.4
Transport, Storage and Post	0.01	0.1	0.03	0.3
Information Transmission, Software and Information Technology Services	0.00	0.0	0.02	0.1
Other Sectors	0.07	0.6	0.02	0.2
Total	**12.93**	**100.0**	**129.7951**	**100.0**

Sources: China Ministry of Commerce, National Bureau of Statistics and the State Administration of Foreign Exchange, *2016 Statistical Bulletin of China's Outward Foreign Direct Investment*, p. 37.

III. The Problems Facing China's FDI in Russia under the "Belt and Road" Initiative

1. The Russian legal system is not sound enough, and the investment policy lacks long-term stability.

Russia's legal system has not been perfect in investment procedures, labor certification, land transfer, and taxation system, resulting in a sharp increase in transaction costs in the investment process which exceed the expected investment returns. What is more, the legal systems between the various federal republics and states of Russia are also different. Chinese companies in Russia do not know enough about business laws, labor laws and fiscal and taxation policies, and they lack experience in tax avoidance, local labor management, and administrative punishment, which leads to high operating costs and low efficiency. There is no effective response to legal disputes, especially labor disputes for Chinese companies and they are relatively passive. It takes plenty of energy for them to deal with such matters. Meanwhile, Russia's investment policy has changed frequently, and the policy has often been unilaterally revised, resulting in Chinese companies in Russia unable to grasp the direction of policy changes and suffer economic losses. Russia's investment policy has always been heavily influenced by political factors. Political instability is regarded by foreign investors as the biggest source of risk for investment in Russia. The situation in Ukraine, the changes in Russia's relations with Europe and the United States may affect the changes in Russia's economic situation, which in turn will generate large fluctuations in investment benefits.

2. China's FDI in Russia is small in terms of scale, and is mainly concentrated in resource-intensive industries

Although China's FDI flows and stocks in Russia have grown rapidly, reaching at $1.293 billion and $ 12.980 billion in 2016 respectively, compared with Russia's main source countries and regions, China's FDI in Russia is still limited, which is not commensurate with the scale of the two major economies of China and Russia. In 2016, the top ten source countries and the amount of their FDI stocks in Russia were: Cyprus with $144.021 billion, Netherlands with $46.442 billion, Luxembourg with $44.634 billion, Bahamas with $33.519 billion, Ireland with $29.965 billion, Bermuda with $22.22 billion, Germany with $16.908 billion, the British Virgin Islands with $15.198 billion, Singapore with $14.698 billion and France with $14.466 billion. Obviously, in 2016, China's FDI stocks in Russia has not yet entered Russia's top ten sources of FDI, and it was only 9% of Cyprus', 28% of Netherlands' and 29% of Luxembourg's, which shows that there is still huge room for the development of China's FDI in Russia. Meanwhile, China's FDI in Russia has been dominated by resource-intensive, quick-impact and low-tech investments, while the proportion of investment in technology-intensive industries is relatively low. In 2016, in both flows and stocks, the top three industries of China's FDI in Russia are mining, agriculture, forestry, animal husbandry and fishery and manufacturing. Apparently, the industry of China's FDI in Russia is unevenly distributed and the structure is unreasonable, which makes the investment and trade between China and Russia less profitable, hinders the upgrading of China-Russia economic cooperation strategy, and also shows the structure of China's FDI in Russia needs to be optimized.

3. The mode of Chinese Firms' FDI in Russian is single

FDI can be divided into two forms, greenfield investment and cross-border mergers and acquisitions. Greenfield investment is creating a new business, which means that investors set up branches, affiliates, subsidiaries or joint ventures with the host country. Cross-border merger and acquisition (M&A) refers to cross-border acquisitions and mergers of existing companies in host countries. The experience of China's FDI is short, which means that it lacks of international experience, and it has a rather single investment mode, which greatly hinders its development. Chinese enterprises mainly focus on greenfield investment, so they often encounter problems such as the lack of international management talents, and the efficiency and profitability of their investment mode are also low. On the contrary, the M&A mode, often adopted by multinational corporations, is rarely applied by Chinese enterprises that carry FDI in Russia. Even if a small number of enterprises adopt M&A, they also encounter problems of small number of shares and lack of management rights and controlling rights. The single mode of China's FDI in Russia has made the return on investment in Russia low, affecting the enthusiasm of Chinese companies for

investing in Russia.

4. China's FDI in Russia has occasional environmental problems

In recent years, Chinese companies' FDI in Russia has been hampered occasionally because of causing ecological destruction and environmental pollution, and has even been questioned as "predatory development", "China's environmental threat" or "China's ecological dumping". There are two main reasons for this phenomenon: Firstly, the traditional focus areas of China's FDI in Russia are energy, mineral resources exploitation, agriculture, forestry, animal husbandry, fishery and transportation infrastructure, which are mostly environmentally sensitive or highly environmentally polluting industries. Secondly, most of the Chinese companies involved in these industries invest in areas with abundant natural resources, but the ecological environment systems in these areas are relatively fragile, the Russian environmental protection legal system is not perfect, and the environmental supervision mechanism is not well-developed. In addition, some Chinese companies lack sufficient attention to the issue of ecological environmental protection, which is easy to cause Russia's ecological and environmental problems, which has caused China's investment projects to be severely blocked or even failed.

IV. Policy Suggestions for Further Expansion of China's FDI in Russia

1. Strive to eliminate Russia's doubts about the expansion of China's investment cooperation with Russia

With the increasing of China's investment in Russia and the advancing of Sino-Russian economic and trade cooperation, some Russian officials and scholars remain skeptical about the in-depth cooperation between the two countries. They worry that China's expanding investment will affect Russia's national sovereignty, and result in growing dependence of some Russia's industries on China. What's worse, they hold the view that the strategy docking between China and Russia will enable China to exert influence on Russia's economic lifeline. Since the main contradiction of current Russian economy is the slow industrialization caused by excessive dependence on the energy economy, some scholars fear that the Sino-Russian strategy docking will aggravate its "Dutch disease" and affect its industrialization process. This cognitive bias has led to Russia's ambivalence towards China's FDI: on the one hand, it hopes to expand economic and trade exchanges with China; on the other hand, it does not want to rely too much on China. As a consequence, China's investment cooperation with Russia is hampered by such concerns. Therefore, both China and Russia should make further efforts to promote communications at various levels, eliminate Russia's doubts about China's investment cooperation, enhance strategic mutual trust, strengthen mutual coordination and cooperation, and achieve mutual benefit and win-win results as well.

2. Strengthen Sino-Russian investment cooperation in the high-tech industry

At present, China's investment in Russia is mainly concentrated in energy, mineral resources development, agriculture, forestry, animal husbandry and fishery, and transportation infrastructure, etc. However, less investment is made in high-end manufacturing, especially in high-tech industries. Thus, we believe that China's comparative advantages as a "world factory" and in modern manufacturing have not been made full use of. Currently, both China and Russia are facing the transformation and upgrading of the economic development mode. China's economic development is shifting from high-speed growth to high-quality development, while Russia has to move the economy beyond oil and natural gas. In fact, opportunities are abundant for the two countries to cooperate in the high-tech industry. Although Russia has accumulated rich experience and technology in the fields of aviation industry, chemical pharmacy, weapons development, and high-end equipment manufacturing, its potentials in these high-tech industries are far from being developed due to a lack of funds. By comparison, China has gained considerable experience in many manufacturing sectors, and has a huge market, a large number of skilled personnel as well as ample funds. China is now in an urgent need to upgrade the level of manufacturing and develop

more high-end equipment. Therefore, the cooperation between the two countries in high-tech industry is extremely complementary. Hence, China and Russia should reinforce investment cooperation in strategic industries such as aerospace, nanomaterials, nuclear technology, and chemical pharmaceuticals under the framework of the “Belt and Road” initiative and the Eurasian Economic Union. Considering that China has huge market demand for civilian large aircraft, it can jointly develop long-distance large aircraft projects, boost product research and development, and form a new market competition pattern in this field with Russia.

3. Improve the FDI mode of Chinese enterprises in Russia

China should fully play the role of Silk Road Fund, Asian Infrastructure Investment Bank and Shanghai Cooperation Organization Union Bank in order to provide financial services to companies investing in Russia, solve their financing difficulties, and encourage investment in long-term, high-quality, high-return projects, particularly in key projects such as roads, railways, ports and logistics facilities. The Chinese enterprises are supposed to keep improving the FDI mode in Russia and take various cooperation methods to accelerate the development of investment projects. For example, in the construction of the “Moscow-Kazan High Speed Rail” project, a public-private partnership model (PPP) can be adopted to promote cooperation between the Chinese companies and the Russian government. In some industries with strict control, the Chinese companies can invest through equity participation and taking equity stakes; while in some open industries, they can participate in project construction and operation in the form of holding. The good news is that Russia is considering liberalizing Chinese investment in energy, allowing more than 50% of equity investment, which will make it possible for Chinese companies to invest in the form of holding. Besides, the Chinese firms should be encouraged to make investment in Russia through cross-border acquisitions, since it can increase investment returns, especially for those sectors where the main goal is to obtain strategic assets [3].

4. Handle properly the relationship between China's FDI in Russia and its environmental protection

Industries such as energy, mineral resources exploitation, forestry processing and infrastructure are mostly environmentally sensitive or highly environmentally polluting ones. Therefore, FDI in these fields is likely to cause ecological problems in host countries, which may result in investment projects being hindered or even failure. For one thing, the environmental responsibility of China’s companies investing in Russia should be further enhanced. Only by engaging in FDI activities in harmony with the local environment can we finally ensure the maximum and long-term interests of all parties involved in FDI. In other words, it can not only ensure the profit maximization and long-term benefits for Chinese enterprises engaged in FDI, but also contribute to Russia's environmental protection and the fulfillment of overall economic and social development goal. At the same time, the idea and action of Chinese enterprises to integrate FDI with environmental protection is not only a concrete manifestation of their social responsibility, but also an objective requirement for them to establish a good international image, grow bigger and stronger, and even become truly multinational companies with global competitiveness. In addition, this is also what required for China to undertake international obligations as a responsible developing country and implement global sustainable development strategies. For another, the environmental damage behavior of overseas investment companies should be regulated by China's domestic law. It is both rights and obligation for home country to supervise overseas investors without prejudice to the sovereignty of the host country. From the perspective of firms, when conducting any FDI activities in Russia, enterprises should be approved or put on record, comply with both Russian and international laws or regulations concerning environmental protection. At the national level, China should further improve the laws and regulations regarding the environmental protection of enterprises' overseas investment, in order to regulate and ensure the sustainable development of its FDI in Russia.

References

1. GAO Xin, “Research on the Industrial Choice of FDI in Russia of Chinese Enterprises”, Journal of Industrial Technological Economics, 2012 (4), pp. 94-101.
2. LI Chuanxun, “The Research of Chinese Investment Problem in Russian Far East”, Journal of Russian Studies, 2013 (6), pp. 31-43.
3. LI Jing, "China's Investment Promotion Strategy against Russia under the Background of the ‘Belt and Road’ ", Intertrade, 2015 (8), pp. 25-29.
4. YIN Min, “The Legal Risks and Solutions of China’s Investment to Russia under the Belt and Road Initiative”, International Business Research, 2018 (1), pp. 69-85.
5. UNCTAD, World Investment Report (2003-2017), http://unctad.org/en/Pages/publications. aspx.
6. China Ministry of Commerce, National Bureau of Statistics and the State Administration of Foreign Exchange, Statistical Bulletin of China’s Outward Foreign Direct Investment (2003-2016), http://fec.mofcom.gov.cn/article/tjsj/tjgb/, 2018-09-10.
7. China Ministry of Commerce, 2017 Guide to Foreign Investment and Cooperation in Countries or Regions (Russia)，http://fec.mofcom.gov.cn/article/gbdqzn/upload/eluosi.pdf, 2018-09-10.

UDC 339

Y. Song
Renmin University of China
ys337@ruc.edu.cn

W. Wu
University of International Business and Economics, China
Wxwu@uibe.edu.cn

G. Zhou
Renmin University of China
zhouguangsu@nankai.edu.cn

INEQUALITY OF OPPORTUNITY AND HOUSEHOLD RISKY ASSET INVESTMENT: EVIDENCE FROM PANEL DATA IN CHINA

Abstract: Based on the household panel data over three waves in China, this paper investigates how inequality of opportunity within a region affects household risky asset investment. The empirical results show that inequality of opportunity raises both the probability and the share of household risky asset investment. Accordingly, creating more equal opportunities for people will generate larger policy effects than we normally expected.
Key Words: Income inequality; Inequality of opportunity; Risky asset investment; Stock market participation

1. Introduction

The determinants of household portfolio decisions have attracted much attention in economics and finance literature. In particular, previous studies have focused on micro-level factors that can affect household risky asset investment. These factors typically include demographic characteristics (age, gender, etc), resources available to the household (indicators for wealth and income), health status, financial literacy, and so on (Barber and Odean, 2001; Carroll, 2002; Rosen and Wu, 2004; Berkowitz and Qiu, 2006, van Rooij et al, 2011). Such variables are generally statistically significant and quantitatively important in regressions explaining portfolio decisions in different countries. These studies have important implications given the close link between stock market participation and financial development, and consequent economic growth as found in existing studies (Levine, 1997; Calvet et al., 2007).

However, studies on how regional characteristics can affect household portfolio decisions are still in its infancy. While several relevant studies have identified the effects of country-specific economic environments, including the presence, or lack thereof, of an economic crisis, on household portfolio choices (Chai et al., 2011; Christelis et al., 2013), little attention has been paid to regional factors within a country at a given time.

Our paper will utilize a panel dataset from China to examine the effect of within-region inequality, especially inequality of opportunity on household risky asset investment. The concept of inequality of opportunity is not new in economics literature. Arneson (1989) and Sen (1985) are among a number of influential authors who have argued that inequality of opportunity, rather than inequality of outcome (such as income) should be used as the appropriate criterion for assessing the fairness of a given allocation. In their opinions, inequality resulting from lack of individual effort may help purport a harder working society, while inequality caused by factors outside of individual control, such as poor family background, raises concern and are ethically unacceptable.

Roemer (1998) incorporates the concepts above into a model and divides the factors determining income into two categories: those people can control (called "efforts"), and those beyond people's control (called "circumstances"). Given this distinction, he defines “inequality of opportunity” essentially as the extent to which important outcomes—such as income—are determined by circumstances beyond people's control (Ferreira and Gignous, 2011). According to

this definition, economists have developed a set of methods to empirically measure inequality of opportunity in different countries (Ferreira and Gignoux, 2011, Marrero and Rodriguez, 2012; Bourguignon et al., 2013; Ramos and Van de gaer, 2016).

Inequality of opportunity within a region may affect whether and how much a household invests in risky assets through several possible channels. First, higher inequality of opportunity may increase people's material aspiration which may increase a household's risky asset investment. Early studies have proposed the concept of material aspiration which depends on a person's income or wealth as well as within-group inequality (Easterlin, 1974; Stutzer, 2004). Second, inequality of opportunity may affect people's risk preferences. If inequality is largely determined by factors beyond people's control (i.e., higher inequality of opportunity), then people may choose to take more risks and invest in risky assets.

We will employ the tracking survey (China Family Panel Studies, CFPS) in three waves (2010, 2012 and 2014) to investigate how inequality of opportunity within a region affects household risky asset investment. The empirical results show that inequality of opportunity increases both the probability and the share of household risky asset investment.

The paper proceeds as follows. Section 2 reviews the previous literature and specifies our contributions. Section 3 describes the dataset and introduces the measures for inequality of opportunity used in this paper. Models and results are provided in Section 4. Section 5 concludes.

2. Literature review and our contributions

Many studies have explored various determinants of household portfolio decisions, both theoretically and empirically. A rich theoretical literature demonstrates how portfolio decisions depend on factors such as risk aversion and investment opportunities (Gollier, 2002). Theoretical studies suggest that resources available to the household (e.g., wealth and income) have large impacts on portfolio choices because they can influence risk aversion and because of fixed costs to owning certain assets (Rosen and Wu, 2004). Several recent studies investigated the determinants of stock market participation. Christelis et al. (2010) show that the propensity to invest in stocks is strongly associated with cognitive abilities, and van Rooij et al. (2011) find that financial literacy affects the investment in the stock market. Those with low literacy are much less likely to invest in stocks.

However, studies on how regional characteristics can affect household portfolio decisions are very scarce. Almost no existing studies have examined the effect of within-region inequality on portfolio choices. One relevant strand of literature is related to studying how within-region income inequality can affect household expenditures and savings. Jin et al. (2011) find that within-region income inequality measured by the provincial Gini coefficient has a positive effect on household savings and a negative effect on household consumption in urban China. Their explanation is the so-called status seeking hypothesis. That is, as income inequality rises, people may save more and invest more in education in order to strengthen their ability to seek high social status in the future. Increase in income inequality makes entering a high-status club more attractive because differences in resources between the high- and low-status groups widen (Stutzer, 2004). In contrast, Sun and Wang (2013) adopt the measure of village-level income inequality to obtain the opposite results in rural China. They find that household savings are negatively correlated with the magnitude of income inequality of their home village.

Our paper makes at least two contributions to the existing literature. First, to the best of our knowledge, this paper is the first attempt to examine the effect of within-region inequality, especially inequality of opportunity, on household risky asset investment, compared to the numerous existing studies focusing on micro-level determinants of portfolio decisions. Second, we first explore the effects of inequality of opportunity on people's economic behavior at the micro level. The existing literature overwhelmingly measured the level of inequality of opportunity in different countries but rarely examined its economic consequences empirically. The exceptions to this are scarce; Marrero and Rodriguez (2013), for example, investigate whether inequality of

opportunity can affect economic growth. Their findings suggest that this component of inequality is negatively associated with economic growth in the United States between 1970 and 2000.

3. Data and descriptive statistics

This section explains the data sources used in this paper and presents the summary statistics of key variables.

3.1 Data sources

This paper explores the relationship between inequality of opportunity and household risky asset investment using the household-level data from China Family Panel Studies (CFPS). The county-level variables come from the China City Statistical Yearbook and the China Statistical Yearbook for the Regional Economy. CFPS is a tracking survey conducted every two years by the Institute of Social Science Survey at Peking University. In order to keep track of China's economic development and social change, CFPS designs questionnaires on three different levels of aggregation: communities, households, and individuals.

We use the household as the unit of our analysis because financial decisions are usually made at the household-level in China; furthermore, it is hard to separate the investments of different household members. Specifically, we will use two measures for the risky asset investment: the total investment in risky asset (including stocks and funds) and the investment in stocks at the household level.

Moreover, we restrict our sample into the urban residents (who live in urban areas more than 6 months last year) because households in rural areas rarely invest in risky assets given the large urban-rural disparity.[1] The final sample used in our paper includes 4,005 tracked households for each of the three waves in 2010, 2012, and 2014.

3.2 Estimation procedure of inequality of opportunity

Inequality of opportunity is estimated as the between-type (ex-ante) inequality component following the parametric procedure of Ferreira and Gignoux (2011), Marrero and Rodriguez (2013), and Song (2017), which allows for the inclusion of a larger set of circumstances in the database. Specifically, following the convention of the literature, we divide the determinants of individual income (denoted by w) into two categories, including circumstances (denoted by C) and efforts (denoted by E). Since circumstances are economically exogenous by definition, and efforts may be influenced by circumstances, we can write the following equation.

$$w=f[C,E(C,v),u] \quad (1)$$

u and v represent other stochastic factors affecting income, such as fortuity (Lefranc et al., 2009). For the purpose of measuring inequality of opportunity—rather than of estimating any causal relationship between circumstances, efforts, and income—we can simply estimate a log-linearized version of the reduced form equation by OLS:

$$\ln w = C\varphi + \varepsilon \quad (2)$$

We follow three steps to construct the index for inequality of opportunity. First, we estimate equation (2) and obtain the predicted income denoted as $\hat{w}$. In the Mincer-type wage regressions, we follow the literature convention and include the following circumstances variables such as gender, hukou status at 3 years old, paternal and maternal education (Marrero and Rodriguez, 2013; Song, 2017). Hukou means household registration system in China, which determines people's access to a variety of public services. People inherit at birth the hukou status from their parents, so the hukou status at 3 years old is generally beyond one's own control (Song, 2014).

Second, given that the Theil (0) index (mean log deviation) is additively decomposable, we calculate the Theil (0) index for the predicted income denoted by T($\hat{w}$) in order to estimate the extent to which the total income inequality can be attributed to inequality of opportunity

(Bourguignon et al., 2007; Ferreira and Gignoux, 2011). Third, we calculate the index for inequality of opportunity (denoted by IO) as the ratio of the Theil (0) index for predicted income to that for the actual income.

$$IO = \frac{T(\hat{w})}{T(w)} \quad (3)$$

We will use the measure above, throughout the paper, to investigate the effect of inequality of opportunity on household risky asset investment decisions. We calculate this index for inequality of opportunity at the county level; this aggregation level is chosen because lower-level inequality may have larger effects on household behavior within a closely knit social comparison group (Sun and Wang, 2013).[1] The use of county as the aggregation level in our study creates more variations than that of the country or state level, which has been used by others (Marrero and Rodriguez, 2013; Ferreira et al., 2014). We include commonly-used circumstances variables in the literature, such as gender, hukou status at 3 years old, and each parents' education level (Marrero and Rodriguez, 2013; Song, 2017).

We adopt two different measures for the risky asset investment, including the total investment in risky asset (stocks and funds) and the investment in stocks at the household level. Moreover, for each measure, we examine both the participation and the investment magnitude of each investment. We design two dummy variables, one for the stock market participation, and the other for whether to hold the risky assets; we also employ two ratios to measure the intensity, including the ratio of stocks to the total household financial asset, and the ratio of risky asset investment to the total household financial asset.

3.3 Summary statistics

Table 1 presents the summary statistics of the key variables used in this paper for all three waves. From this table, we can find that both of total income inequality (measured by the Theil (0) index) and inequality of opportunity reach a peak in 2012. The percentage of total income inequality that is attributed to inequality of opportunity increases from 22% in 2010 to 28% in 2012, and decreases slightly to 27% in 2014. Coincidentally, the shares of households investing in stocks as well as in risky assets also reach the peak in 2012. The participation rate in stocks in 2012 is 8%, and 11% of households hold some risky assets in the same year. In terms of the intensity, we focus on the data in 2010 and 2012 because the CFPS dataset does not ask the total amount of financial assets in 2014. As can be seen, the ratio of risky asset to the total financial asset (mostly deposits in a bank) is around 4%, and the ratio of stocks to the total financial asset remains at 3%.

In addition, we present summary statistics for several county-level variables, household-level control variables, and characteristics of the head of the household (called householder throughout the paper). We also include most of the variables in existing studies on the determinants of household portfolio decisions, such as measures for household income and wealth, measures for household members' health status and financial literacy, householder's education level and marital status, etc.

Table 1. Summary Statistics (Obs.=4,005)

		2010		2012		2014	
Variables	Definition	Mean	Std.	Mean	Std.	Mean	Std.
	Key Variables						
Theil	Theil (0) Index	0.33	0.16	0.40	0.24	0.28	0.13
Oppo Ineq	Opportunity Inequality Index	0.22	0.13	0.28	0.15	0.27	0.14
Stock	Dummy Variable for Stock Investment (1=Yes)	0.07	0.26	0.08	0.27	0.07	0.26
Risky Asset	Dummy Variable for Risky Asset Investment (1=Yes)	0.10	0.30	0.11	0.32	0.09	0.29

Stock Ratio	Stock Value/Total Financial Asset	0.03	0.14	0.03	0.13	\	\
Risky Asset Ratio	Risky Asset Value/Total Financial Asset	0.04	0.16	0.04	0.16	\	\
Material Aspiration	Measures for Material Aspiration (ranked from 1-10)	5.76	2.79	5.71	2.83	5.04	2.93
Risk Preference	Dummy Variable for Risk-loving (1=Yes）	\	\	\	\	0.38	0.48
	County-level Variables						
Log GDP Per-capita	Log of GDP Per-capita	10.49	0.93	10.80	0.90	10.98	0.86
Log Area Per-capita	Log of Land Area Per-capita	0.37	1.20	0.37	1.21	0.39	1.23
Service Ratio	Value-added of the tertiary industry/GDP	0.42	0.13	0.40	0.14	0.43	0.14
Log Fiscal Exp. P.C.	Log of Fiscal Expenditure Per-capita	8.53	0.85	8.90	0.80	9.13	0.76
	Household Control Variables						
Familysize	Family Size	3.48	1.55	3.51	1.59	3.47	1.65
Child Ratio	Number of Children (0-16 years old)/Family Size	0.26	0.24	0.21	0.22	0.18	0.21
Elder Ratio	Number of the Old (60 years old and above)/Family Size	0.18	0.32	0.21	0.34	0.26	0.36
Log Income	Log of Household Income	10.17	1.02	10.16	1.41	10.41	1.24
House	Dummy Variable for Having a House (1=Yes)	0.86	0.35	0.85	0.36	0.86	0.35
Hospital	Dummy Variable for a Household Member in Hospital (1=Yes)	0.17	0.38	0.21	0.41	0.25	0.44
Financial Literacy	Dummy Variable for a Holding College degree in Finance	0.05	0.21	0.05	0.22	0.06	0.23
	Householder Control Variables						
Male	Dummy Variable for Gender (1=Male)	0.67	0.47	0.67	0.47	0.67	0.47
Han	Dummy Variable for Han Ethnicity (1=Yes)	0.96	0.20	0.96	0.20	0.96	0.20
Age	Age	50.68	12.90	52.67	12.9	54.67	12.9
Age Square	Age^2	2735.3	1358.7	2940.7	1409	3155.4	1460
Edu Years	Years of Education	8.00	4.66	7.82	4.75	7.82	4.75
Healthy	Dummy Variable for Health Status (1=healthy)	0.86	0.35	0.82	0.38	0.83	0.37
Spouse	Dummy Variable for Having a Spouse (1=Yes)	0.88	0.32	0.87	0.33	0.86	0.34
Party	Dummy Variable for Communist Party Member (1=Yes)	0.15	0.36	0.16	0.36	0.15	0.36
Urban Hukou	Dummy Variable for Urban Hukou Status (1=Yes)	0.55	0.50	0.58	0.49	0.59	0.49

4. Models and results

We first estimate a Probit model to examine the effect of inequality on whether a household invests in risky assets. Our major baseline results are shown in Table 2. Although the coefficients on inequality of opportunity fall slightly after adding householder's control variables, they still remain significantly positive. Moreover, the results are similar regardless of whether we measure risky asset investment through stocks or through total risky assets.

Table 2. The Impacts of Inequality of Opportunity on Financial Investment (Probit Model)

	(1)	(2)	(3)	(4)
	Stock		Risky Asset	
Theil	0.074***	0.053***	0.096***	0.068***
	(0.016)	(0.013)	(0.019)	(0.015)
Oppo Ineq	0.091**	0.054*	0.132***	0.081**
	(0.037)	(0.029)	(0.042)	(0.032)
County-level Variables	Yes	Yes	Yes	Yes
Household Control Variables	Yes	Yes	Yes	Yes
Householder Control Variables		Yes		Yes
Province Dummy	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes
Obs.	10,793	10,747	10,793	10,747

Note: "Theil" denotes the total income inequality in a county, and "Oppo Ineq" denotes inequality of opportunity in income within a county. Cluster standard errors at county level are presented in parentheses, and *** p<0.01, ** p<0.05, * p<0.1.

We then adopt two intensity measures for risky asset investment: the ratio of stocks to the total household financial asset, and the ratio of risky asset investment to the total household financial asset. We estimate a Tobit model because the dependent variable is left-censured; the results are displayed in Table 3. Just as before, both the total income inequality and the inequality of opportunity are positively associated with household risky asset investment. The sample size shrinks by about one-third because the 2014 CFPS dataset lacks information on the ratio of risky assets as well as the ratio of stocks.

Table 3. Intensity Analysis by Using Ratios of Financial Investment as Dependent Variables (Tobit Model)

	(1)	(2)	(3)	(4)
	Ratio of Stock		Ratio of Risky Assets	
Theil	0.472***	0.326***	0.500***	0.356***
	(0.116)	(0.093)	(0.103)	(0.082)
Oppo Ineq	0.636**	0.333	0.815***	0.510***
	(0.267)	(0.213)	(0.220)	(0.167)
County-level Variables	Yes	Yes	Yes	Yes
Household Control Variables	Yes	Yes	Yes	Yes
Householder Control Variables		Yes		Yes
Province Dummy	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes
Obs.	7,369	7,336	7,420	7,386

Note: The model specification is similar to that in Table 2. Cluster standard errors at county level are presented in parentheses, and *** p<0.01, ** p<0.05, * p<0.1. Coefficients are reported in the table, and marginal effects are 0.034, 0.023, 0.049 and 0.035, respectively.

5. Conclusions

Our paper investigates how inequality of opportunity within a region affects household risky asset investment and is one of the first attempts to look at the consequence of inequality of opportunity on household behavior. We employ the tracking survey (China Family Panel Studies) in three waves (2010, 2012 and 2014) to examine this relationship. The empirical results show that inequality of opportunity raises both the probability and intensity of household risky asset investment.

As is seen, the inequality of opportunity not only affects economic growth at the macro-level as several existing studies have proved, it also has much impact on household behavior. Accordingly, creating more equal opportunities for people will generate larger policy effects than we normally expected.

References

1. Arneson, R., 1989. Equality and Equal Opportunity of Welfare. *Philosophical Studies*, 56 (1), pp. 77-93.
2. Bourguignon, F., F. H. G. Ferreira, and M. Menéndez, 2013. Inequality of Opportunity in Brazil: A Corrigendum. *Review of Income and Wealth*, 59 (3), 551–555.
3. Bourguignon, F., Ferreira, F., Menéndez, M., 2007. Inequality of opportunity in Brazil. *Review of Income and Wealth*, 53, 585–618.
4. Barber, B. M. and T. Odean, 2001. Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment. *Quarterly Journal of Economics*, 261-292.
5. Berkowitz, M. K. and J. Qiu, 2006. A Further Look at Household Portfolio Choice and Health Status. *Journal of Banking & Finance*, *30* (4), 1201-1217.
6. Calvet, L. E., J. Y. Campbell and P. Sodini, 2007. Down or Out: Assessing the Welfare Costs of Household Investment Mistakes. *Journal of Political Economy*, *115* (5), 707-747.
7. Carroll, C., 2002. Portfolio of the rich. In: Guiso, L., Haliassos, M., Jappelli, T. (Eds.), Household Portfolios. MIT Press, Cambridge, MA, 389-430.
8. Chai, J., R. Maurer, O. S. Mitchell and R. Rogalla, 2011, “Lifecycle Impacts of the Financial and Economic

Crisis on Household Optimal Consumption, Portfolio Choice, and Labor Supply", National Bureau of Economic Research, (No. w17134).
9. Christelis, D., D. Georgarakos and M. Haliassos, 2013. Differences in Portfolios Across Countries: Economic Environment versus Household Characteristics. *Review of Economics and Statistics*, *95* (1), 220-236.
10. Christelis, D., T. Jappelli and M. Padula, 2010. Cognitive Abilities and Portfolio Choice. *European Economic Review*, *54*(1), 18-38.
11. Easterlin, R. A., 1974. Does Economic Growth Improve the Human Lot? Some Empirical Evidence. *Nations and Households in Economic Growth*, *89*, 89-125.
12. Ferreira, F. H. G. and J. Gignoux, 2011. The Measurement of Inequality of Opportunity: Theory and an Application to Latin America. *Review of Income and Wealth*, 57(4), 622–57.
13. Gollier, C., 2002. What does theory have to say about household portfolios? In: Guiso, L., Haliassos, M., Jappelli, T. (Eds.), Household Portfolios. MIT Press, Cambridge, MA, 27–54.
14. Jin, Y., H. Li and B. Wu, 2011. Income Inequality, Consumption, and Social-status Seeking. *Journal of Comparative Economics*, *39* (2), 191-204.
15. Levine, Ross, 1997. Financial development and economic growth: views and agenda. *Journal of Economic Literature* 35, 688–726.
16. Marrero, G. A., & Rodríguez, J. G. 2013. Inequality of opportunity and growth. *Journal of Development Economics*, 104 (3), 107-122.
17. Marrero, G. A., & Rodríguez, J. G. 2012. Inequality of opportunity in Europe. *Review of Income and Wealth*, *58*(4), 597-621.
18. Ramos, X., & Gaer, D. 2016. Approaches to inequality of opportunity: principles, measures and evidence. *Journal of Economic Surveys*, 30 (5), 855-883.
19. Roemer, J., 1998. Equality of Opportunity, Published by Harvard University Press, Cambridge.
20. Rosen, H. S. and S. Wu, 2004. Portfolio Choice and Health Status. *Journal of Financial Economics*, *72*(3), 457-484.
21. Sen, A., 1985. Commodities and Capabilities, Published by North-Holland, Amsterdam.
22. Song, Yang. 2014. What should economists know about the current Chinese hukou system? *China Economic Review* 29: 200–212.
23. Song, Yang. 2017. Measures and Underlying mechanisms of Inequality of Opportunities in China: Evidence from the Recent CGSS Data. *Finance & Trade Economics*, 1, 35-51 (in Chinese).
24. Stutzer, A., 2004. The Role of Income Aspirations in Individual Happiness. *Journal of Economic Behavior & Organization*, *54* (1), 89-109.
25. Sun, W. and X. Wang, 2013. Do Relative Income and Income Inequality Affect Consumption? Evidence from the Villages of Rural China. *Journal of Development Studies*, *49* (4), 533-546.
26. Van Rooij, M., A. Lusardi and R. Alessie, 2011. Financial Literacy and Stock Market Participation. *Journal of Financial Economics*. 101(2), 449-472.

UDC 32.101

Z. Zhang
professor, PHD tutor
Dean of the School of Marxism of Shanghai University of Finance and Economics, engaged in the study of Marxism in China

L. Hu
doctoral student, engaged in the study of Marxism in China, Shanghai University of Finance and Economics, Shanghai, China

THE IMPROVEMENT OF THREE-DIMENSIONAL MARINE AWARENESS CONSTRUCTION UNDER THE "BELT AND ROAD" STRATEGY

Abstract: "the Belt and Road" is the most ambitious space strategy, economic and cultural development strategy, and the grand strategy of transcending the ocean to the world in Chinese history, the time and space transformation of the Chinese nation's survival and development environment will inevitably require strengthening the "social awareness about the sea". Therefore, we must take this opportunity to profoundly grasp the thoughts of the ocean development, and construct a "three-in-one" three-dimensional ocean development awareness with Chinese characteristics, that is, "meta-body marine awareness" of the marine natural attributes as its nature, the "entity marine awareness" with the marine economy and ocean safety as its core elements, the "Tao marine awareness" marked by cooperation and harmony. The logical structure of the three-dimensional system is a "tower-like", and the three dimensions correspond to "tower bottom", "tower body" and "tower top" respectively. The significance of its construction lies in: indicating the national living space turning from the land to the sea and the purpose of harmonious development of the world, indicating the pace of marine practice and the focus of contemporary marine development, clarifying its great value to "the Belt and Road" strategy which will promote the Chinese nation's bright prospect on the road to revival. To construct the three-dimensional marine awareness needs to establish the "meta-body marine awareness" of the land plane, the ocean circle and the earth, to construct the "entity marine awareness" of the marine economic awareness and the marine safety awareness, and to construct "Tao marine awareness" from the perspective of the "Belt and Road" strategy and the Chinese nation's harmony spirit.
Keywords: "the Belt and Road", "meta-body marine awareness", "entity marine awareness", "Tao marine awareness"

"The Belt and Road" is a grand strategy of contemporary time and space interaction and Eurasian win-win cooperation, which will create "the era of three Oceans construction" including the Indian Ocean, the Pacific Ocean and the Atlantic Ocean. Its main area runs through Eurasia, connects the active East Asian economic circle and the European marine civilization economic circle, and will establish a large pattern and great scene of "bilateral opening to the west and the east", connecting the sea to Europe in west China and crossing the ocean into the world in east China. This is the most ambitious spatial strategy and economic and cultural development strategy in the history of China. It means that the Chinese nation is moving towards the distant sea and the deep sea with firm confidence and determination. In such an important historical turning point, a landlocked nation which has been accustomed to land-based farming must reform its own marine awareness. Accordingly, we must make full use of the historical opportunity of the implementation of the "the Belt and Road" strategy, profoundly grasp the thoughts on the ocean in the theory of socialism with Chinese characteristics, and reshape the sea awareness with Chinese characteristics. The three-dimensional marine awareness of the "three in one" is an ideological framework and basic strategy based on the reality of China. It will eliminate the traditional one-dimensional and unidirectional marine awareness and reconstruct the multi-dimensional and multi-faceted marine awareness, that is, the three dimensions of "meta-body marine awareness", "entity marine awareness" and "Tao marine awareness", which have their own characteristics and close internal logic connection with each other, and the three are unified and can be seen in the "the Belt and Road" strategy and process of the Chinese nation's bright prospect on the road to revival. Chinese development will be directed and guided by the theory above, the contemporary development

problems will be helped to be solved and a space for the development of the Chinese nation will be created, thereby national feelings will be enriched, national cohesion will be enriched, and a vision of future development will be achieved.

1. The strong voice of the era: "the Belt and Road" strategy calling for contemporary marine awareness

“the Belt and Road” is an economic strategy and spatial strategy built to deepen the needs of reform and opening up, which are time and space interaction, land and ocean plan as a whole and “bilateral opening to the west and the east”. The ocean has become an important key factor in Chinese economic development and national security. The rapidly changing social reality urgently calls for the reshaping of contemporary marine awareness, which profoundly reflects the strong voice of the era calling for social awareness innovation. However, the existing marine awareness in the Chinese society, which is deeply influenced by the strong farming awareness, is inevitably not able to support “the Belt and Road” strategy enough, the dilemma of inconsistent and incoordination between existence and social awareness will appear inevitably. All these above indicates that the marine awareness must be reconstructed to adapt to the call of the times for social awareness.

1.1 The necessity of marine economic awareness supporting the “the Belt and Road” strategy

The marine economic awareness with a global perspective is an important social awareness that supports the construction of “the Belt and Road”. “the Belt and Road” strategy constructs a new economic order in Asia-Europe continent, and the expansion of the Chinese nation's activity space and the close cooperation in international economic cooperation will inevitably require a broad economic space. This demand encourages, summons and inspires the nation's powerful discovery, conquest, participation and competition awareness of marine geospatial and ocean-connected economic space, and thus the awareness of the ocean economy must be born in time. The awareness will surely lead and drive us to actively recognize, develop and utilize the ocean, walk out of the geographical limitations and "walk into" the world economic network, thereby opening up a broad space for global development and cracking the binary structure of the Eastern and Western since the reform and opening up and solve the problems of the bottlenecks in resource and energy development to promote the implementation of the “The Belt and Road” space strategy and economic strategy.

1.2 The urgency of marine safety awareness to solve the strategy of space integration in Eurasia

Marine safety awareness is the core of “the Belt and Road” strategy. Marine safety itself is already an important part of the 21st century national security in geospatial space [2], and “the Belt and Road” strategy integrates the space between Eurasia and the Pacific Ocean, the Indian Ocean and the Atlantic Ocean. The ocean means maritime economic routes and national security barrier and safety awareness are more important, and this strategy involves multiple factors such as wide areas, complex regions and high economic density along the route, marine safety tasks are particularly critical and urgent. Therefore, we must establish a comprehensive, comprehensive and stable marine awareness. Only when the marine security awareness is filled and truly implemented in “the Belt and Road” strategy, the Eurasian Community is able to develop and grow. Therefore, marine safety awareness should be one of the core elements of the “The Belt and Road” strategic layout.

1.3 The existing marine awareness brings the shackles and difficulties of “the Belt and Road” strategy

The foundation of the existing marine awareness comes from the history, and the people's cognition, emotion and rationality of the ocean since the reform and opening up. Influenced by the inertia and continuity of history, the land awareness still takes an important part of social awareness. The modern marine awareness is passively adjusted through the Western aggression and lacks the mass psychological foundation, the structural problems of the marine awareness subject are still obvious till now. Although a positive marine awareness have formed since reform

and opening up, it still has the characteristics of unity and regional differences as following: In this period, taking economic construction as the center, marine safety awareness has no choice but to retreat, and the “single” dominated by the marine economy has developed significantly, at the same time, the international cooperation mechanism is fragmented, lacking the spatial marine awareness of the land and sea plan as a whole, and the global awareness of the marine economy is not prominent, focusing on international economic cooperation while diluting the reflection on Western marine culture and marine awareness, lacking "moderate" marine awareness with distinctive Chinese characteristics.

The integration, overlap and entanglement between history and reality result in the characteristics of the current lack of overall marine awareness, the lack of marine safety awareness and the one-dimensional and “unilateral body” of marine economic awareness. Obviously, this cannot be matched, coordinated, and adapted to the “the Belt and Road” strategy, it is difficult to exert its role as a spiritual supply of social awareness, a cohesive force, and a reactionary energy efficiency that leads development, the embarrassment and hardship of which profoundly reveals the necessity and urgency of the reshaping comprehensive, multi-dimensional, "polyhedral" marine awareness.

2. Theoretical presupposition: The clarification of the theory of socialism with Chinese characteristics about the marine thought

The construction of three-dimensional marine awareness is premised and guided by the theory of socialism with Chinese characteristics. Classic Marxism and the Chinese Communist Party’s theory of ocean thought since the founding of the People's Republic of China and the ocean strategy in the new era of the 21st century is the theoretical premise of this innovation. Marx's exposition on world market and national development presupposes that the nature of marine geography, world market (economy) and nation-state maritime security are key elements of maritime awareness, the Chinese Communist Party's theory on maritime security after the founding of PRC and the interpretation of harmonious marine development presupposes that marine security and the marine economy are two important tasks in socialism construction.

2.1 Marx’s thoughts on the ocean: marine geography, world markets, national Security

Marx's exposition on ocean, nation and world markets1 explains the inevitability of the national marine security awareness and cetainty of the world's marine economic awareness development from the perspective of marine geography on human values. Firstly, Marx shows the natural constraints of the geographical environment on the formation of the nation-state from the perspective of human-land relationship, which affects the political and economic system and national character. He said, "where there is no natural world, there is no external world of sensibility". The difference of land and marine awareness between China and Athens in Greece proves the “strong influence of geography” [4]. Marx emphasized that the natural attributes of ocean routes and the economic attributes of trade have accelerated the formation of world markets, large industrial products such as warships have promoted the appearance of the national marine security awareness. From the development of the capitalist system, the sea route has completely broken the gap between the countries and the region, the marine trade has closely linked the world, and the capitalist system has been established in the world. Then, the navy and warships have become important assistants for the maintenance of the national security. "The era of colonialism showed to all maritime nations is the era of establishing a huge navy to protect the newly opened colonies and trade with the colonies." The driving force behind this pusher is the power of the economy. As Marx said, “The marine political violence based on modern warships shows that it is not “direct” at all, but it is with the help of the economic development, that is, the high development of metallurgy, the dominant of skilled technicians and rich coal mines. " [6]. In this way, the maintenance of the navy and warships, the pursuit of world economic profits, and the protection of the national maritime security constitute an important part of Marx's theoretical system on the ocean, which profoundly demonstrates Marx's of the ocean economy awareness and marine security awareness. The excavation of Marx's "theoretical mine" profoundly reveals that the geographical attribute of the ocean is the premise of our ocean thought, which contains dual

connotations, namely nationality and world, economy and security. On one hand, it enlightens and leads us to build a socialist maritime awareness with local characteristics and which can safeguard national security and serve national interests and have a global vision. On the other hand, it also reflects the contradictions and confrontations between the dual connotations of awareness within the capitalist system and generates exclusive marine awareness due to the spatial integration of national interests, it also alerts us that we must abandon it and build a harmonious and win-win marine awareness in security and cooperation.

2.2 The Ocean Thought of the Communist Party of China: Marine Safety Awareness and Marine Economic Awareness

After the founding of PRC, the Communist Party of China's theory of naval construction, the establishment of marine management organizations, the maintenance of national maritime rights and interests, and reform and opening up highlights the determination to maintain maritime safety and integrate into the world market actively. First, after the founding of the People's Republic of China, Chinese marine industry has been struggling, we firmly established the naval construction ideology and established a naval layout that gradually extended from near-shore defense to offshore defense. [7] Secondly, through the adjustment of the superstructure the marine security awareness was continuously improved, the marine management institutions 2 and relevant laws and regulations on the sea were completed, diplomatic statements on international law such as territorial seas, contiguous areas, exclusive economic zones and continental shelves are issued. Thirdly, the will to safeguard maritime interests and maritime security was demonstrated, the islands of the South China Sea Sovereignty declarations were made with the Diaoyu islands and related sea areas and continental boundary. Fourthly, China's marine economic awareness has been continuously strengthened.

After the reform and opening up, China actively joined the WTO to integrate into the world market, participated in the world economic competition, and formulated a "going out" strategy, which highlights the strengthening of China's marine economic awareness. From the founding of New China to the reform and opening up, our theory of ocean thought has experienced the theoretical transformation from Marx's ocean safety awareness to marine economic awareness. In the early stage, it focused on the the stable work at the beginning of the founding of the People's Republic of China, and actively established sea defense, navy and related organizations. After 1978, it is guided by the marine economic awareness and China strived for stability in the international and surrounding sea areas, and concentrated on economic construction to strengthen the economic strength to solve the difficulties in the pre-existing national development. These theoretical achievements and practical experience have provided us with a profound theoretical foundation and practical experience for reshaping contemporary marine awareness.

2.3 The Marine Thought of the Communist Party of China since the 21st Century: Harmony, Cooperation, and Win-Win

Since the 21st century, China's strategic thinking on marine harmony, maritime powers and the Maritime Silk Road has expressed Chinese marine economic awareness, maritime security awareness and the pursuit of world harmony, whose purpose is to build a safe, cooperative and harmonious society with Chinese characteristics. Our maritime awareness that advocates peace and harmony starts from and is internalized in farming awareness, it is absolutely different from the Western exclusion strategy, conquest by force and robbery strategy. Our maritime awareness has been enhanced by the reform and opening up to participate in the competition of the world economy and the struggle of maintaining marine safety, we gradually form a cooperative and harmonious win-win marine awareness. Firstly, the harmonious ocean thoughts appeared in 2009, Secondly, the party's 18th National Congress report clearly proposed the establishment of a maritime power, and emphasized it in the eighth study of the Political Bureau of the CPC Central Committee [8], Thirdly, in October 2013, the strategic thinking of the Maritime Silk Road was fully elaborated internationally [9]. The marine harmony, the maritime power and the "the Belt

and Road" strategic thinking reflect the growing enthusiasm and competitiveness of China's participation in the world economy, and also express the expectation of national maritime security. It profoundly reflects the desire and expectation of reshaping marine economic awareness and marine safety awareness.

The latest theoretical achievements of classical Marxism and Marxism in China presuppose that marine awareness is an indispensable part of the socialist theory with Chinese characteristics. Its theory comes from classical Marxism, and it needs to be practiced, developed, enriched and perfected continuously in the construction of socialism in China. The implementation of “the Belt and Road” strategy requires the innovation of marine awareness, and provides an opportunity and realistic platform for the improvement of socialist theory with Chinese characteristics.

3. The connotation exploration: the trilogy of three-dimensional marine awareness generation

Chinese contemporary reality and the theory of socialism with Chinese characteristics is the practical basis and theoretical premise for us to reshape Chinese contemporary marine awareness. In reshaping Chinese contemporary marine awareness, we must adhere to the theory of socialism with Chinese characteristics, and at the same time criticize and in inherit the outstanding achievements of the Western marine awareness. We must adhere to the principle of combining local context with global vision, combining the modern thinking with sustainable development. Therefore, we comprehensively and deeply elucidate the marine awareness from the three dimensions of “high” foothold, “real” focus and “positive” value orientation: First, the foothold of our marine awareness are the marine geographical attributes and the world market closely related to it, the endowment of the attributes of the world of the sea highlights the “height” of our foothold. Second, the world market (economic) operation with ocean circulation as a space stage and the national security maintenance are our real focus of marine awareness. Third, the Chinese national harmony spirit and traditional virtues are the "positive" value of our marine awareness. According to it, the marine awareness which we reshape should include “meta-body marine awareness”, “entity marine awareness” and “Tao marine awareness”. The three are unified and seen in China’s “the Belt and Road” strategy and the great rejuvenation of the Chinese nation Process, this is the basic connotation of our construction of the "three in one" three-dimensional marine awareness. At the same time, it is also the trilogy of the intrinsic logic process generated by it. It can be represented by the image pyramid image of the three-dimensional marine awareness: The natural attribute of the ocean is the trait of the "meta-body marine awareness", which lays the base of the tower body and holds the tower body, that is, "the entity marine awareness" with the characteristics of economic communication and the pursuit of safety, and the "Taoist Marine awareness" with the characteristics of cooperation and harmony is at the top of the tower. It embodies the value pursuit of marine awareness and coordinates the overall situation of Chinese marine industry.

3.1 Establishing the " meta-body marine awareness" of the land plane, the oceanic circle and the earth

Natural space geography is the precondition for the existence of nation. We should establish the “meta-body marine awareness” to lay the foundation and foothold of the “tower body” of three-dimensional marine awareness at first to re-establish China's marine awareness. The “meta-body marine awareness” is a map of human survival space that forms a concrete and abstract combination of the natural geography of the ocean and its economic value. The current functions of ocean transportation are increasingly developed, the supply of resources is becoming more mature, and the communication between nations and nations are unprecedentedly close. This economic and geographical attribute determines that China, which is emerging in globalization today, must have a holistic, abstract and concrete cognition of the ocean.

First, a comprehensive global understanding of the specific external form of the ocean based on the terrestrial plane. The ocean's continuous, indivisible huge body of water forms a blue circle that covers all the space except the land, forming a full-filled three-dimensional water polo from the two ends to the north and south poles, the middle to the sea floor and the sea surface. This requires us to stand on the land plane and recognize the vast and far-reaching ocean from a

stereoscopic perspective, so that we have a full understanding of the ocean in concrete and external forms. Second, deep understanding of the inherent nature of stereoscopic marine awareness behind the economic attributes of the ocean. The ocean's circular geography attributes contain the value of route traffic and the value of resources that human society need to survive such as marine life, tidal energy, thermal energy, and petroleum operate [10]. The essence of the former is that it is essentially a global perspective of human development, and the latter embodies the human dynamic perception of the development of the new century, which collectively map out cognitive situation about the intrinsic nature of the ocean. The intrinsic nature of the ocean is indeed an important tool for advancing the history of the world. From the great geography discovery in 15th century to the establishment of the capitalist world market system and the global pursuit of the ocean in 21st century, it shows its historical value. Obviously, the space strategy and economic strategy of “the Belt and Road” we have to build must have a global vision and a dynamic awareness of the three-dimensional marine awareness.

However, due to the late start of China's marine industry, the experience and technology of marine development needs to be upgraded and accumulated, the understanding of polar regions, deep seas and distant seas is extremely limited, the development and utilization of resources in marine waters is low, and the control and use of marine routes needs to be strengthened. We must turn to marine development to map out our basic national development space, and start from the geographical awareness of the ocean: First, we will deeply understand the status and value of our marine land (especially the territorial sea land awareness), Second, we must take the profound perception that the offshore, the open sea, the high seas, the deep sea, and the polar regions should all are our activities area, Third, we must deeply understand the importance of resources and energy within the ocean waters to our social development. In short, the “meta-ocean ideology” we have established is to transform and reverse our survival thinking that relies solely on land and realize the “transformation” of our living environment from the land to the sea. Therefore, we can regard our human beings as the marine "biological" inhabiting the land, and the "the Belt and Road" strategy coordinated by the land and sea has opened a new historical starting point for us to return to the "marine body awareness", but its construction still need to be supported by the natural perception of the ocean.

3.2 Shape the “Entity Marine awareness” that based on marine economic awareness and marine safety awareness

Marine safety awareness and marine economic awareness are the proper meanings of the Marxist theory, the two are extremely obvious before and after the reform and opening up. Marine security is the fundamental premise of the existence and interests of the nation. The marine economy is not only the driving force for the development of the nation, but also the inevitable result of the globalization of the world market. Both involve the global operation of the economy of the nation-state, the maintenance of political systems and social stability, and the operation of military power. Therefore, they constitute the main body of contemporary marine awareness, which should be an important connotation and core element to reshape the contemporary marine awareness. The backbone and middle of the three-dimensional marine awareness "tower body" is the real point of our marine practice.

First, the marine economic awareness takes the ocean with the characteristics of mobility and globality as the stage, the world's universal economic connection as the ties, and the realization of the common interests of the people as its aim. It is a product of the inevitable human spirit that combines the geographical attributes of the ocean, the world market and the operation of economic globalization. Fundamentally speaking, it is the global awareness of the structure of rights. In the process of globalization, we need to establish a clear marine awareness economy awareness, strive for multiple transoceanic economic communities to enhance overseas economic capacity, establish a sense of transoceanic economic cooperation, build a global sense of discourse power, and open up new international economic and trade rules and related oceans right to make regulations [11].

Obviously, the establishment of such a marine economic awareness will not only help to open up a broad global market, which will help us to successfully get rid of the geographical economic awareness of traditional Chinese East Asia, but also help us to get rid of the troubles of the dual structure of the East and West formed in the reform and opening up. Second, the maritime security awareness is a proactive ocean safety idea with the maritime military power as the core to safeguard the safety of the nation's offshore and distant seas and to realize the national economic interests of the nation. It is the product of the world economy development, the operation of Western exclusive marine awareness and the maintenance of national interests.

Establishing the maritime safety awareness is one of the necessary, most urgent tasks for us to maintain the smooth operation of our offshore, offshore safety and marine economy. At the moment, the marine safety awareness is obviously an important part of the most urgent social security awareness in our development, and the public's awareness is extremely insufficient. Although the ocean economy awareness has accumulated a lot in the 30 years of reform and opening up, it still lacks a global perspective and lacks the discourse right in international trade. Therefore, we must take comprehension and activity as the premise and core of contemporary marine awareness construction, making it the basic guarantee for the implementation of “the Belt and Road” strategy and the important connotation to support the sustainable development of the Chinese nation.

3.3 Constructing "Taoist Marine awareness" from “the Belt and Road" Strategy and the Chinese National Harmonious Spirit

Marx profoundly reveals the dual connotations of marine awareness itself, namely nationality and cosmopolitanism, economy and security, and the two connotations themselves contain the cohesiveness of the world and the introversion of nationality, economic expansion and Safety balances. However, economic globalization has intensified national awareness [12], which means that the contradiction between national security and world economic development has increased. In particular, the Western countries and the alien civilizations, which adhere to the exclusive marine awareness, have a sharp conflict and even armed conflicts at the maritime interests. Therefore, we must abandon the Western exclusive marine awareness, and take the morality of the Chinese nation's spirit of harmony as the core of value, and build a harmonious and win-win "Tao marine awareness." Because of its spiritual guidance and moral value orientation, this dimension should be at the top of the three-dimensional marine awareness “tower body”. Its “common construction principle” has been highlighted [13] in the “The Belt and Road” principles of harmonious and inclusive, mutual benefit and win-win development strategies.

First, the national spirit of cooperation and win-win development and harmonious development is the intrinsic value mark that reshapes the marine awareness. The farming ideology of moral, harmonious and stable requirements cultivated the harmonious spirit of the Chinese nation's cooperation and win-win, we advocate equality and mutual benefit, friendly consultation and mutual benefit between the countries, and advocate the settlement of international disputes through dialogue and negotiation. Therefore, our harmonious national spirit has melted the confrontation between economy and security, nationality and the world through cooperation and win-win strategies, harmonious development, and effectively resolves the contradictions and conflicts brought about by the marine awareness. This is an effective attempt by the Chinese native spirit to resolve the contradictions of the marine awareness, the spiritual quality of the long-term cultivation of farming awareness and a major contribution to solving the world development problems under the guidance of Western marine awareness. Uncourtly, we should regard it as our value scale and target criteria of contemporary marine awareness. Second, the common principle of “the Belt and Road” construction, “cooperation and win-win” and “harmony and tolerance” are the era manifestations and concrete practices of “Taoist Marine awareness”. The “The Belt and Road” strategy is the integration of important regional forces in the world market. Based on the principle of “cooperation and win-win” and “harmony and tolerance”, the Eurasia’s new economic order, community of destiny and community of responsibility will be built. Solve the contradiction

arising from the maritime interests, overlapping and even controversy, greatly promote regional peace, enhance the ability of the destiny community to resist overseas risks, and protect national offshore. Coastal security, offshore sea security, and overseas marine economic interests are protected from infringement.

In short, our re-established marine awareness is based on the current “Belt and Road” construction, based on the theory of socialism with Chinese characteristics, and learns and absorbs the practical experience of our marine industry since the founding of New China. The three dimensions clarify the three-dimensional marine awareness with comprehensive marine awareness of spatial connotation, economic connotation and security connotation. They are interdependent, mutually infiltrated and synergistic, showing the trilogy inherent in the three-dimensional marine awareness. It is a solution strategy to solve the short-board problem of social change to the current social change. The economic connotation and marine safety connotation highlights the significance of the construction of the era, it is the theoretical construction that supports the great rejuvenation of the Chinese nation with a strict logical structure and noble theoretical quality and distinctive Chinese characteristics, at the same time, the elucidation of the three dimensions connotation highlights the strong nationality and national ambition of the Chinese nation's “prospering to the sea” from the offshore, to the distant sea, and to the deep sea, showing that we lead with the spirit of harmonious cooperation. The world’s broad mind and grandeur. We enrich, enhance and arm the national spirit with this theoretical connotation and national development perspective. We will shape our nation with courageous, passionate, and broad-minded and prosperous characteristics. With this spirit, we will inspire the public's social construction enthusiasm and unite the strength to promote national development. It will surely push the Chinese nation to a rejuvenation.

4. The release of meaning: reflection on the construction of three-dimensional marine awareness

The three-dimensional marine awareness is a reflection angle and a logical architecture theory for constructing China's contemporary marine awareness. The theoretical innovation significance of the practice demonstrates the rationality of the construction of three-dimensional marine awareness. The three-dimensional marine awareness is structured with the “pyramid” image structure, which helps us to determine the pace of marine practice. At the same time, the internal relationship of the logical framework indicates that the overall layout of our current marine industry should focus on developing the marine economy and ensuring marine safety. It can reflect on and criticize the inadequacy of Western exclusive marine awareness, and publicize our theoretical contribution to constructing cooperation and harmonious and win-win marine awareness. We highlight and confirm the rationality of this theoretical construction through the two levels of practice and theory.

4.1 The architectural logic of 3D marine awareness helps us determine the pace of marine practice

The imagery of the three-dimensional marine awareness architecture logic is the pyramid, which is the “tower bottom” of the “meta-body marine awareness”, the “tower body” backbone of the “entity marine awareness” and the “Tao marine awareness” of the “tower top”. The inner logic is the "bottom" as the basic premise of the logical starting point and practice. The "tower body" is the core and practical task of the logical framework, while the "top of the tower" reflects the rational reflection and value judgment of human beings with balance and guidance function. The setting of this kind of logical structure helps us to determine the pace of marine practice, that is, based on the spirit of cooperation and harmony of "Taoist Marine awareness", we could pragmatically understand, master the natural geographical attributes of the ocean, economic attributes, and economic communication and focus on the pursuit of safety. The determination of this practical step shows that the purpose of setting up three-dimensional marine awareness is to: establish a positive marine economic awareness, establish a comprehensive and effective marine safety awareness, and ultimately realize the land-sea "turning" thinking of the Chinese nation's living space and the harmonious development of the world.

First, the “meta-body marine awareness” is the logical starting point for reshaping the marine awareness, the basic premise of our marine practice and the goal orientation of our nation's return to the ocean. The natural and economic attributes of the ocean are undoubtedly the logical starting point of our marine undertakings and marine thoughts. The grasp of the polar regions, the distant seas, the deep-sea nature and endowments is the primary condition and fundamental premise of our marine practice. At the same time, with the three-dimensional marine awareness, in the world's universal communication, we strive to realize the "transformation" of the Chinese nation's future living space, and make the Chinese nation's emotional realm and living conditions turn to the "meta-body ocean" natural area. Second, “entity marine awareness” construction is the core and practical task of reshaping the marine awareness. The construction of global economic network and comprehensive and effective marine safety construction are the top priority of our marine practice. Our marine economy is to establish a universal and close global economic communication. It must inevitably collide with and even conflict with vested interests and Western exclusive maritime awareness countries. Therefore, we must build a sense of maritime security to maintain our offshore and the deep-sea safety. The combination of marine economic construction and comprehensive marine safety is both a necessary, inevitable and urgent task for us to go to the world. They constitute the main content of marine awareness construction. Third, “Taoist Marine Awareness” is the value pursuit of reshaping the marine awareness. It acts as the spiritual orientation and thought engine of the ocean practice. The advancement of marine practice must rely on the support of harmonious and win-win cooperation. It is a navigator that leads China to realize the “turning” from land to sea. It is also an icebreaker that balances and eliminates the Western exclusive marine awareness.

The elucidation of the intrinsic logical relationship of the three dimensions shows that the natural attribute of the ocean is the starting point of the logical structure. The ocean economic awareness is the key point of the logical connection. The Western exclusive and monopolistic marine awareness is the biggest logical stagflation point, and cooperation and harmonious marine awareness is the logical foothold. The comprehensive and profound understanding and grasp will help us to form a complete and rigorous practical thinking and pace, to correct the development of our marine undertakings, and to take a safe and steady and relaxed pace of practice: cooperation, harmony and win-win The “Taoist Marine awareness” is navigation, based on the premise of ocean cognition, building a global economic network and an integrated and effective marine safety network, realizing the “turning” of the land and sea of the Chinese nation's living space and the harmonious development of the ocean.

4.2 The three-dimensional logical architecture indicates the overall layout of our contemporary marine industry.

The logical architecture of three-dimensional marine awareness shows that “entity marine awareness” is the core of rebuilding marine awareness. It shows that the overall layout of our contemporary ocean industry must be based on the ocean economy and the ocean safety construction is the primary parallel task. “The Belt and Road” strategy is our most important space strategy and economic strategy. It is also the grand vision of contemporary ocean development that we travel across the ocean to the world. It urgently needs the support of marine economic awareness and needs marine safety awareness. Therefore, we need to carry out the overall layout from the construction of the ocean economy and ocean security.

First, establish a global economic network. This requires shaping a global and high-density overseas economic layout, creating a sea route including the South and the Arctic, establishing a multi-faceted transoceanic economic cooperation group, building a global discourse power, and bringing the Chinese economy into the world, integrating with the world, successfully leading the world, reversing our historical role, from the "fish" in the network of historical capitalist systems into a "fisherman" who sets up the global economic network. Second, strengthen the sea power and build a safe, reliable and modern offshore sea defense. “the Belt and Road” has established a spatial pattern of “East and West” through interconnection, which makes the position of the sea

defense outpost more prominent. It is really related to the issue of China's coastal defense, such as Malacca Strait Difficulties, the blockade of the East Island chain and the disputes of the coastline, and the awareness of offshore sea defense. Therefore, it is necessary to update, transform and upgrade our navy, naval, marine information technology and other integrated maritime forces to ensure maritime safety, and use economic strength, comprehensive competitiveness and global peace and justice to work together to weave "high elasticity" and "impact resistance" to ensure the safety of our region in the operation of the global economic network. Third, strengthen the construction of sea power and ensure the safe and smooth operation of the global economic network. Sea power is a key factor in reshaping Marine awareness and ensure the marine safety, especially relying on maritime forces to protect the sea, the deep sea and the polar security, and extend our regional safety network to the global economic network to ensure our global economy is running smoothly. Then, the global economic network, coastal defense and sea power construction have presented the overall layout of the current active and stable marine industry on the micro, meso and macro levels, and highlighted the focus of the current layout.

4.3 Three-dimensional marine awareness unified "the Belt and Road" strategy and highlights national vitality

The theory of three-dimensional marine awareness is the application and innovation of the theory of socialism with Chinese characteristics, which helps to guide the development of the current Chinese marine industry. "The Belt and Road" is our space strategy, economic strategy and global strategy. This great marine undertaking does require the support and coordination of three-dimensional marine awareness. At the same time, the three-dimensional marine awareness leads the transformation of the thinking of living space about land and sea, we must hold high degree of cultural awareness and national awareness, base on the marine living space to re-integrate Eurasia, and consciously take the "The Belt and Road" strategy from the perspective of the "turning body" of the land and sea, thus forming a global development realm. Then, global governance, the global economy and the pursuit of human values are what they should be in the three-dimensional marine awareness. As a product of the era of the "The Belt and Road" strategic, the three-dimensional marine awareness is transformed from a unified need to a conscious need, fully demonstrating the Chinese nation's spiritual temperament and national vitality, that is, innovation, great creativity and national vitality. The three-dimensional marine awareness reflects the "The Belt and Road" strategy as follows: First, marine awareness is an urgent need for "the Belt and Road", and at the same time, through the construction of the Eurasian Economic Community, the global economic order is reshaped, and in a certain sense ,it become an important part of global governance [14]. Second, marine safety awareness is a key factor in ensuring the smooth progress of the "Belt and Road", and its sea power ideology, which focuses on safeguarding the interests of the sea and overseas, profoundly maps the national pursuit of achieving smooth operation of the global economy. Third, the principle of co-construction of economic interaction, the "new interest concept" of giving more and getting less and the harmonious sea awareness of cooperation, which embodies the value pursuit of our cooperation, harmonious and win-win marine awareness, and also abandons the Western exclusive marine awareness, all these above has created a new era in which China's marine awareness has led the global ocean industry.

The unified approach of the "The Belt and Road" strategy of three-dimensional marine awareness highlights the Chinese nation's global governance capabilities, its determination to maintain the smooth operation of our economy around the world, and the pursuit of the global marine value. Obviously, this kind of unification has a long-lasting vitality. It uses strong appeal and centripetal force to inspire the Chinese nation to establish the "Poseidon Spirit" and the "Spirit of the Sea". The spirit, thus condense national power, promot the implementation of "The Belt and Road" strategy, and take this as a leading and powerful way to provide positive, progressive social and psychological support, and promote the great rejuvenation of the Chinese nation.

References:

1. Complete Works of Marx and Engels: Volume 14 [M]. Beijing: People's Publishing House, 1964: 383-384.
2. Gao Xinsheng. Research on the Thought of Coastal Defense of the Communist Party of China (1949-2009) [M]. Beijing: Current Affairs Press, 2010: 232-233.
3. Gao Zichuan. Analysis of China's marine safety in the early 21st century [J]. Modern International Relations, 2006, (3).
4. Lao Jiafu. Globalization and national cultural diversity [M]. Beijing: People's Publishing House, 2005: 182.
5. Li Jialin, et al. China Ocean Resources Environment and Marine Economic Research 40 Years Development Report [R] Hangzhou: Zhejiang University Press, 2014.
6. Recommendation of the Central Committee of the Communist Party of China on Formulating the 13th Five-Year Plan for National Economic and Social Development [EB/OL]. (2015-11- 03) [2015-11-20]. Http: / / politics. People. Com. Cn/ n/2015/1103/ c1001-27772701-6. Html.
7. Selected Works of Marx and Engels: Volume 1 [M]. Beijing: People's Publishing House, 1995: 42.
8. Selected Works of Marx and Engels: Volume 3 [M]. Beijing: People's Publishing House, 1995: 517.
9. Selected Works of Plekhanov's Philosophical Works: Volume 4 [M]. Yu Xin, etc., translated. Beijing: Life, Reading, and New Knowledge Sanlian Bookstore, 1974: 44.
10. Vision and Action to Promote the Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road [EB/OL]. (2015-03-29) [2015-10- 20]. Http: / / news. Xinhuanet. Com/gangao /2015 - 06/ 08/c_127890670. Htm.
11. Xi Jinping. Further concern about the ocean's understanding of the ocean, the ocean, and the promotion of the construction of a strong country in the sea have continuously achieved new achievements [EB/OL]. (2013-07-31) [2015-09-30]. Http: / / news. Xinhuanet. Com/ politics /2013-07/31/c_116762285. Htm.
12. Xi Jinping. Work together to build a China-ASEAN destiny community [N]. People's Daily, 2013-10-4 (2) .
13. Xia Xianliang. The game between China's “Belt and Road” and US TPP on global trade rules [J]. Journal of [14] Anhui Normal University: Humanities and Social Sciences, 2015, (5) .
14. Zhou Wenfang. Political Economic Thinking of the "Belt and Road" Strategy [J]. Marxist Studies, 2015, (10).

UDC 339.564

E.V. Kochkina
Postgraduate Student, Department of World Economy and
International Economic Relations in FSBEI of HE
Saint Petersburg State Economic University
mihal.katya@mail.ru

CHINESE MARKET AS THE MAIN DIRECTION FOR THE DEVELOPMENT OF RUSSIAN NON-PRIMARY EXPORT

Abstract: The article is devoted to the research of perspective directions of development of non-primary export from Russia to China in the current conditions of the digitalization of the world economy, including the framework of the project "One Belt and One Road". The existing potential of bilateral cooperation in the form of non-primary export of Russian goods to the PRC on the basis of high-tech products has been identified. The author has conducted a factor analysis of the development of this process and identified possible external threats which stand in the way of cooperation between these two countries.
Keywords: Non-primary development, Russian export, digital economy, high-tech products, Russia, China.

Introduction

The relevance of the research is explained by the fact that Russia and China are quite deeply involved in the global processes of innovative construction and the formation of the digital economy, however, the potential of their possible partnership in this area is only partially revealed. And the development of export of non-primary goods might become an effective incentive for the innovative growth of Russian industry, which will result in a reduction of international economic cooperation, where Russia predominantly acts as a raw material base for partner countries. At the same time, the People's Republic of China is one of the main geographical priorities for the external economic development of the Russian Federation, as it is the fastest growing consumer market in the world.

These issues, including the framework of the Silk Road Initiative, are being fragmentary studied by A.A. Kazantsev, I.D. Zvyagilskoy, E.M. Kuzmina, S.G. Luzyanin [7], Z. Marat [8], experts of the Russian Export Center [11] and the International Discussion Club "Valdai" [6]. The features of the modern economic model of China are explored by many domestic and foreign experts, in particular, Zhang Zhangbin [16], V.Yu. Salamatov, A.N. Spartak [2] and other authors. The use of digital technologies in the export of goods to China, as well as the implementation of high-tech exports are considered in the researches of such scientists as O.D. Andreeva, I.R. Gililov, N.O. Yakushev [13] and others.

However, the question of common development, leading to the diversification of Russian exports in favor of increasing the share of non-primary and high-tech goods with higher value-added, as well as more effective entry into the Chinese market, requires in-depth study to give the most perspective ways of the development So the scientific novelty of the work consists in developing proposals for the balanced cooperation between the two countries in the sphere of Russian non-primary goods' export to China and joint work in the scientific and technical sphere carried out in the framework of this process.

Hypothesis

On one hand, Chinese-Russian trade relations are characterized by high rates of development and a high degree of complementarity of interests, but, on the other hand, an imbalance of forces and a lack of trust are observed. The most likely scenario for the further development of bilateral relations is harmonious and mutually beneficial development, taking into account the goals of all the involved actors and leading to the harmonization of the economic situation on the territory of Greater Eurasia and the Silk Road.

The development of non-primary goods' export from Russia to China will be reinforced and implemented on the basis of the linking of the SREB and the EAEU initiatives while strengthening cooperation in the creation of new technologies and high-tech goods.

Research methodology

To create a practical basis for writing this article, a large amount of statistical information and forecast data was processed. The information was taken from various Russian and foreign sources on aspects of bilateral trade between Russia and China and the impact of the increasing digital transformation of the global economy on this process.

The following methods were used: the methods of system analysis and synthesis, structural-logical, economic-statistical, comparative and retrospective analysis. A factor analysis of the characteristics of non-primary export to China was carried out. It is based on the characteristics of the domestic economic, political and social environment of the PRC. It is presented by a graphic model in the research. Finally, main external opportunities and threats for the development of Russian non-primary export to China were identified by a separate factor analysis.

Results and discussion

The main areas of non-primary exports from Russia in recent years are Europe, the CIS countries and the Middle East. East Asia, America and Africa are also of significant importance (Figure 1).

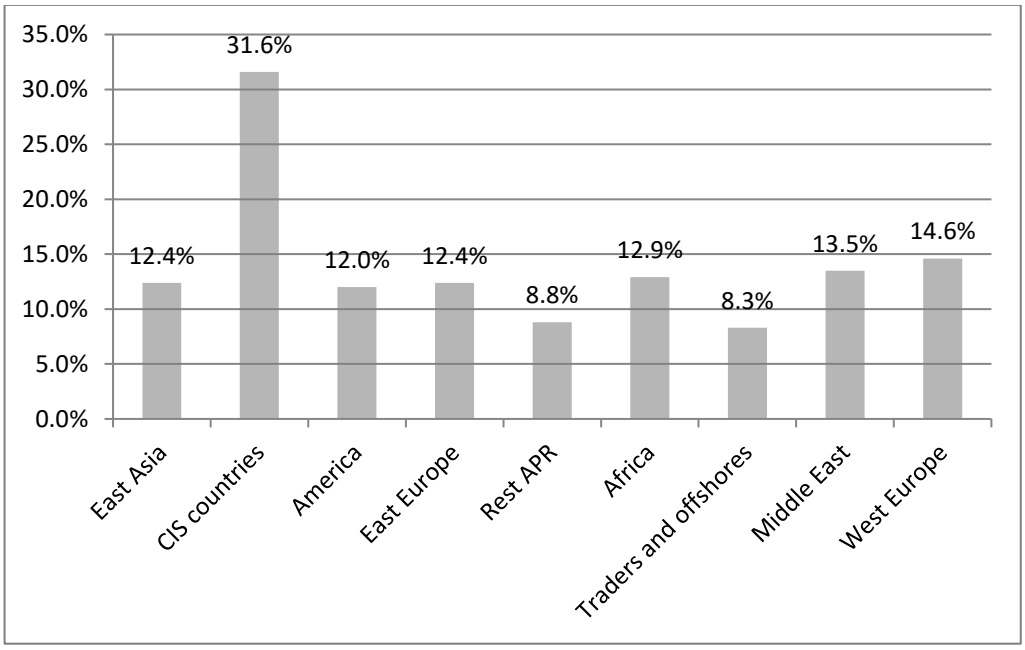


Figure 1. The geographical structure of Russian non-primary export in 2017 [11]

The main counterparties of Russia for non-primary non-energy export are China and Kazakhstan. Belarus, the USA and Turkey are also among the largest partners. Of course, goods are supplied to many other countries, such as Ukraine, the Netherlands, Germany, India, Egypt, Finland and others.

However while export to Kazakhstan or Belarus are growing on a fairly wide range of goods, export to China has only several growth points: engineering products, lumber, petrochemicals, seafood and other food and agricultural products.

The imposition of sanctions against Russia was a turning point when China became not only a global supplier, but also one of the leading consumers of Russian products (Figure 2).

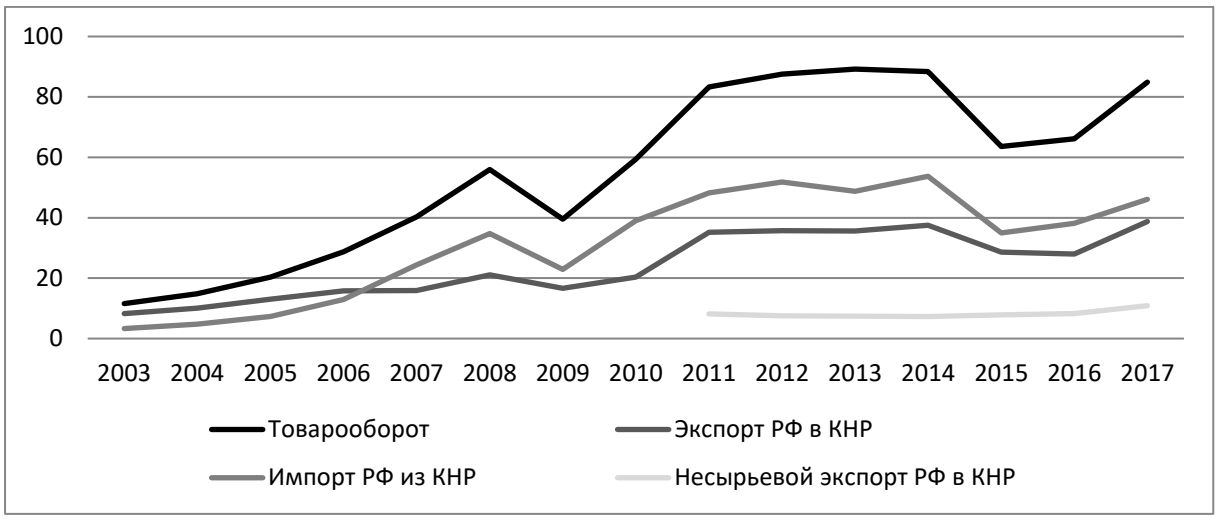


Figure 2. Dynamics of foreign trade of Russia and China in 2003 - 2017 (in billions of dollars)
Compiled by the author on the basis of data from the Federal State Statistics Service and the Russian Export Center.

As for Russian goods, Chinese market is quite attractive for a number of factors. Firstly, the moment for entering the Chinese market is now extremely favorable. Economic growth in the PRC has slowed down and changed its quality - from a growth due to exports or investments, the country moves to the growth based on domestic consumption (Chin. «新常态», Xīn chángtài). A new, more mature and balanced economic model implies a move towards the development of consumption and the service sector, although foreign investment as a historical driver of China's growth will still have a significant share in the economy in the nearest future (Figure 3).

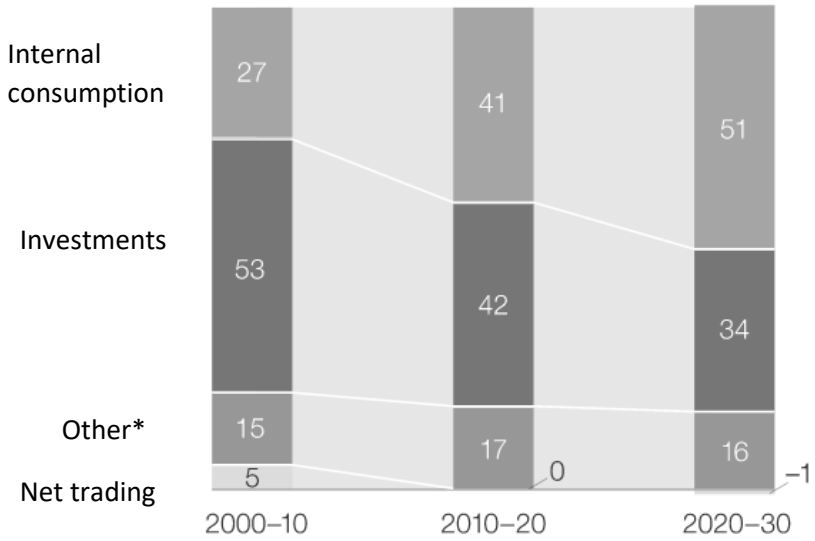


Figure 3. Structure of China’s real GDP in 2000–2030 [14]**
* Includes government consumption and inventory investment;
** 2010 - 2030 data - estimated.

So, there are several main specific characteristics of the new economic model of China:

- a slowdown in economic growth for better quality GDP growth at a reasonable rate and with higher efficiency and sustainability;

- the shift of the core of economic development to the secondary and tertiary industries (technological production, service industry, high-quality investment products and consumer goods with high added value);
- growth in per capita income and reducing the gap between urban and rural areas - the transition to land ownership and large-scale agriculture;
- “export of goods” gives way for “export of capital” - an increase in the volume of resources, consumer goods and strategic products in imports. Possible massive export of capital will give China a stronger competitive advantage in the restructuring of global value chains.
- the middle class is the main consumer in the domestic market. It is expected that by 2020, about 600 million citizens will have an average level of income, while total expenditures will triple in relation to the 2010 figure. China’s demand in the world market and its purchasing power will steadily grow accordingly.
- small and medium enterprises and newly emerging industries may become new “engines of growth” in the country. Thanks to new industries such as e-commerce, Internet technologies and warehouse logistics, the traditional market and its forms of competition and business models will be changed, especially on the basis of lower transaction costs [16].

Thus, for the implementation of non-primary non-energy exports to China, attention should be paid to a number of the described above factors of development of the economy and business practices of the PRC, as well as some other trends that significantly affect the entire process of such interaction (Figure 4).

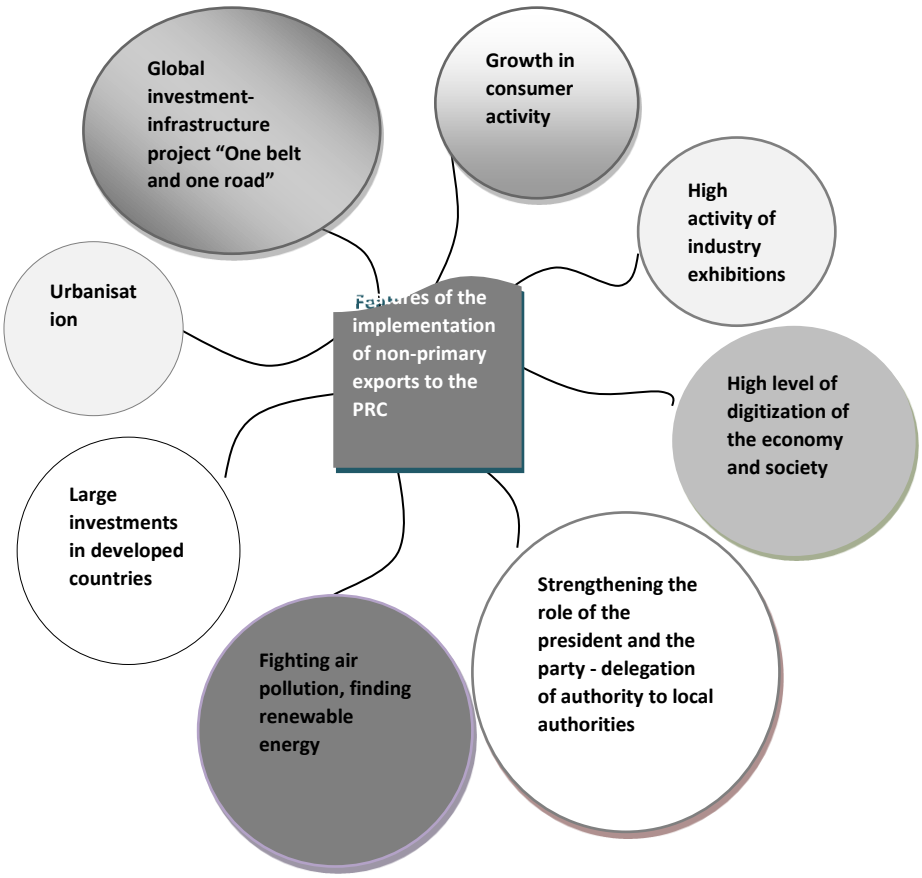


Figure 4. Map of the Chinese internal environment’s features important for carrying out of the Russian non-primary export Compiled by the author.

The basis of Russian export to China while still constitute low- or medium-tech products:

- mineral products;
- wood, pulp and paper products;
- cars and equipment;
- foodstuffs and agricultural raw materials;
- chemical products and some others.

Among technological goods, there is an export of turbines and industrial equipment, plastic products, secret goods [3], which are not goods with high added value as well.

It should be noted that the assessment of the knowledge-intensiveness of products is becoming more and more strict every year, and the global level of technological development is growing. This makes the process of creating high-tech products even more complex. But it is important to remember about the implemented strategy of cooperation between countries in linking together the construction of the EAEU and the SREB initiatives. Therefore, the prospect of supplying non-commodity goods to the Chinese market is explained not only by the development of transport, logistics and trade areas of cooperation, but also by the potential for successful integration into global value chains in high-tech areas, where R & D costs in production make up a significant share in sales of this product. So, in the fields of space, computer, bio-, nanotechnologies, in nuclear power engineering and jet engineering, the joint development of promising products is extremely promising [12].

It can be assumed that such cooperation with the People's Republic of China will be carried out on the basis of Russian educational and scientific organizations, their employees and Chinese capital. And many inventions will find demand precisely in the capacious market of China. A successful example of such cooperation is the creation of data centers in Irkutsk region by the En + Group and HUAWEI companies to provide cloud services in Russia and Asia [4]. From an organizational point of view, such cooperation at the state level can be implemented within the border areas of economic and trade cooperation, as well as in innovation and technology clusters alongside the Silk Road, where products of joint Russian-Chinese cooperation will be created with the implementation of the latest achievements of scientific and technological revolution, personnel and other resources [5].

No doubt that such cross-border cooperation and work on the integration of strategically important national initiatives are associated with certain challenges and risks. In particular, the following can be noted:

- increased competition between Russian and Chinese companies selling their products on the common market of the EAEU countries;
- further deepening the orientation of the economies of Russia and the countries of the EAEU towards the supply of resources in relations with the PRC;
- aggravation of the issue of economic and political security from the point of view of protecting the sovereignty of the country.

However, the implementation of this project will not only realize the strategically important advantage of the geographic location of the EAEU countries and improve the transport infrastructure, but also more effectively counteract discrimination in world commodity markets, gain access to Chinese capital, and also increase the competitiveness of Russian companies in third countries based on Chinese capital and collaborative technology.

It is also important to notice the high degree of development of electronic trading platforms in China. For several years, online trading platforms (Taobao, Aliexpress, TMall, etc.), which provide access to production, logistics, distribution and payments for the most numerous entrepreneurs in China - small and medium businesses, - have been the driving force behind the development of trade. They connect small and medium-sized enterprises with a consumer base, and provide a significant competitive advantage over large state-owned enterprises. So such a trade model is understandable for Chinese consumers, and we can make an assumption that when creating a digital export platform in Russia, the bulk of purchases will likely be made from this market.

So far, consumers from China occupy only the 13th place in the geography of online buyers of Russian non-energy products, - 13% of the market share [10]. And this tendency can be explained by the language barrier, significant differences in consumer preferences of buyers in Asia and the supplied Russian goods, as well as the high degree of development of e-commerce in the domestic market of China itself.

The close interaction with China and its customers infrastructure, customs, technology and even financial integration are important. In the longer term it is likely to require the development of an unified software, operating system and close cooperation in the field of information security. Nevertheless, if the growth of the Russian economy is internally ensured, the linking of the SREB and the EAEU initiatives, including electronic platforms, will lead to the attraction of high technologies and investments in the real economy.

We need to understand that the above mentioned developing projects will not independently launch high-quality economic growth in Russia. Only under the conditions of an effective regulatory state policy on the development of the Russian industry and its digital infrastructure, this cooperation can really become an important factor in the development of the Russian economy.

At the present stage of development of bilateral relations between Russia and China, there is a strengthening of their interaction on many issues, which leads to deeper cooperation and a strategically important partnership even in sensitive areas for both countries. Trade relations between the PRC and the Russian Federation are characterized, on the one hand, by high rates of development and a high degree of complementarity of trade interests, and, on the other hand, by an imbalance of forces and a lack of trust (Table 1).

Table 1. Factor analysis of the development of non-primary export from Russia to China

«Window of opportunities»	**Challenges**
Increased demand for high-quality consumer goods due to an increase in the capacity of the Chinese market	Balancing the benefits from the interaction of Russia and China
Initiative to integrate the EEU and the Silk Road Economic Belt	The need to move from exporting basic, including agricultural, products to high value-added goods
Growth drivers: machinery and equipment; agriculture and food; wood products	Increasing competition in world food and other consumer goods markets
Electronic platforms and marketplaces	Complexity of tariff and non-tariff regulation
Stagnation of demand in the domestic market of Russia, which is an incentive to search for exits to foreign markets for small and medium-sized businesses	Implementation of intellectual property rights protection in China
	Insufficient financing of export support institutions in Russia

The main drivers of the development are the engineering industry and the agriculture and food industry. Among the machines and equipment exported to China, the main role is devoted to jet turbines, power and agricultural equipment. The main obstacle in the way of most products of this group is the high competition from highly developed countries: Japan, Taiwan, South Korea, the USA and the EU.

If we talk about the export of agricultural products and food, then, of course, we should highlight the agricultural sector (wheat, soybeans, corn, leguminous vegetables, grain processing residues) and animal products, oils, cereals and confectionery. There are also a large number of competitors in the supply of these goods to the Chinese market both in Asia and in the distant to China foreign countries.

However, the process of exporting food is also complicated by the fact that China has one of the most complex certification systems in the world. Also the tariff barriers are still applied to this type of products. For example, the highest protective duties are used in relation to the following sections of the commodity nomenclature relating to food:

1. live animals and goods of animal origin;
2. herbal products;
3. fats and oils of animal or vegetable origin and their cleavage products, prepared edible fats, waxes of animal or vegetable origin;
4. prepared foods, alcoholic and non-alcoholic beverages and vinegar, tobacco and its substitutes [2].

The above limitations raise the issue of increasing support for food and agriculture exports from the relevant Russian institutions. It can be:

- consulting services on existing barriers, marketing, branding, search for distribution channels, etc .;
- activation of trade missions;
- export lending and insurance;
- provision of state guarantees.

In addition, exported agricultural, food and other types of Russian products are often characterized by a low level of processing and, accordingly, low added value. New technologies are always the main driver of increasing the added value, which is also reflected in the “flying geese” paradigm as one of the final stages of diversification of production and development of the industrial cycle towards investment products.

Therefore, the innovative development and development of high-tech products in the strategically important for China areas: energy, biotechnology, medicine - can simultaneously become a driver for the growth of non-primary non-energy export from Russia to China and for increasing Russia's share in the global gross value added.

So far, high technologies still are not the basis for interaction between the two countries, and the imbalance of the forces of the considered economies can be noted. This leads to the issue of harmonization of interests on the territory of Greater Eurasia and the so-called “balance of dependence” in regional integration.

Of course, the obvious threat is the strengthening of the raw material orientation of the economy and the transit function of Russia in trade relations with the Chinese side. And while maintaining the existing trends of cooperation, the role of the PRC will gradually grow, the economic imbalance will increase, which will lead to an expansion of China’s presence in the Russian market.

Another development direction is also possible - a significant deterioration in bilateral relations due to the strengthening of external threats (Table 2).

Table 2. Main external threats to the development of Russian-Chinese cooperation

Russia	**China**
Conflict of the West and Russia on the balance of power on the world stage	US trade wars
The use and strengthening of sanctions against Russia by the West	Territorial disputes on the issue of maritime borders with Japan, Vietnam, the Philippines
Terrorist actions on the territory of Russia and Europe	Complication of the problem of the Korean Peninsula
Complication of the problem of the Korean Peninsula	Introduction of US ships in the South China Sea
The crisis of the European Union as a single economic space	Restraining Europe of the development of the Silk Road Economic Belt Initiative

So, under the most negative set of circumstances and the confrontation of the economic development models of both countries, we can assume that China will try to realize its advantage in the Far East and Siberia, aimed at the constant use of Russia's energy and natural resources.

Of course, Russia and China are already facing or may face serious external challenges in the near future, and the situation at the moment is characterized by foreign policy instability.

The basis for preventing the possible negative impact of these economic and political threats in Russia will be an effective regulatory domestic policy for the development of Russian industry, import substitution and non-primary non-energy export.

The answer of China is the already implemented shift towards the development of the domestic economy, the consumer market and the growth of the population's standard of living. It is very likely that the authoritarian model of government and the role of the party in the life of society will continue to strengthen. And, of course, from both countries requires the adoption of additional measures to ensure the internal security of the regions.

However, in comparison with the imbalance of the economic forces of Russia and China, the existing system of international relations, headed by the United States, is more clearly characterized by asymmetry of economic dependence [6]. Therefore, in the opinion of the author, the most likely scenario for the development of relations between China and Russia consists in harmonious and balanced deepening of interaction on political, economic and cultural issues.

The main goal of Russia's foreign economic policy today is the revival and strengthening of its international positions based on the growth of the domestic economy. At the same time, China is committed to building partnerships on a global scale based on the co-development of the countries of the world. These strategically important goals do not contradict each other, and the presence of an active bilateral dialogue and external pressure, especially from the United States, offer the potential for cooperation.

Such a path of development and cooperation implies recognition of China as a geo-economic leader in the diversification of large-scale partnership based on mutual benefit, where each participant has a win. In terms of game theory, such a situation is a characteristic of the "Nash equilibrium," when each participant in the game uses his ideal strategy, any change of which will only worsen his position, which leads to the creation of a stable equilibrium [15].

Integration processes in the territory of Greater Eurasia should be based on the multilateral interest of most major powers to maintain the internal balance of power. And the EEU can become such a tool for restoring symmetry in relations with China, on the one hand, and the EU, on the other. Russia's position in the EAEU balances China's economic power. A single customs zone of the EEU, standards and legislation increase the attractiveness of the region for conducting trade activities and carrying out transit operations.

The issue of the power balance is also important on a global scale against the crisis of overproduction, the dominance of speculative financial operations, large-scale pollution of the environment and social inequality. Therefore, in addition to mutual benefits, harmonious cooperation between Russia, China and other countries of the world should also be based on the concepts of sustainable development, high-quality long-term progress, decentralized energy, ethical investment, etc.

Returning back to more practical issues the main trend of further development of China, which also affects the types of imported goods, is the modernization of the national manufacturing sector. Nowadays China is implementing the first 10-year plan under the program "Made in China 2025" (Chin. 中国 制造 2025). The plan defines nine priority areas:

- increasing the innovative potential of the manufacturing industry,
- increasing the level of integration of information technology and industry,
- strengthening the capacity of basic industries,
- activation of the process of formation of Chinese brands,
- comprehensive introduction of "green" production,
- ensuring breakthroughs in the development of ten key industries,
- deepening the restructuring of the manufacturing sector,
- active development of service industries and production services,
- increasing the internationalization of the manufacturing sector [1].

Russia also has a program with the same name “Made in Russia”. But it is, to a greater extent, aimed at creating an export brand for the recognition of Russian goods abroad, taking into account the characteristics of the importing country.

The priorities for increasing the innovation potential of the Russian economy are defined in the framework of the National Technology Initiative, which includes:

- identification of new markets, including the main drivers of demand, key market niches and possible types of products and services that will fill these niches;
- identification of key technologies that will create products and services in new markets;
- a set of support and incentive measures, including institutional, financial and research tools, allowing to grow national champion companies in new markets [9].

The above named projects of the two countries can become a strategic basis for their further cooperation, since these initiatives are aimed at finding the most effective solutions in the context of the digital transformation of the economy. Technological cooperation between Russia and China will help not only to intensify bilateral exports of high value-added goods, but also to move towards more sustainable production, high-quality long-term growth, co-development and a more equitable balance of forces in the global economy.

One of the effective components of such a partnership could be the development of a youth initiative for linking programs Made in China 2025, Made in Russia and the National Technology Initiative of Russia. When implementing multilateral support by the governments of the two countries, qualitatively new and breakthrough technologies can be created by young scientists and specialists on the basis of higher educational institutions in Russia and China, especially within the framework of building the Silk Road Economic Belt. At the same time, digital technologies can play the most important role of the organizational infrastructure of this process - in the form of electronic platforms that accumulate ideas, projects, roadmaps for their implementation, direct development, as well as information base and consulting assistance from experts.

Credits

The author of the article expresses the gratitude to the management of the Department of World Economy and International Economic Relations of FSBEI of HE "Saint Petersburg State Economic University" for the opportunity and support in conducting the research.

References:

1. 10-year plan of action “Made in China-2025” promulgated in China // ASN 24 - Free access from the Internet. - https://asn24.ru/news/economic/3817/
2. China market: access issues. Analytical report - Under total. ed. Salamatova V. Yu., Spartak A.N. - M .: 2017.
3. Customs statistics of foreign trade // Federal Customs Service: customs statistics of foreign trade. - Free access from the Internet. -http://stat.customs.ru/apex/f?p=201:1:1695331120807664
4. En + Group launched the data center "Clouds of Siberia" // En + Group. - Free access from the Internet. - http://www.enplus.ru/ru/media/press-releases/2017/enplus-group-launches-pilot-pilot-centre-in-siberia.html
5. Exporter’s encyclopedia: China // Russian Export Center. - Free access from the Internet. - https://www.exportcenter.ru/international_markets/world_map/East_Asia/China.
6. Glenn Diezen Russia, China and the “Balance of Dependencies” in Greater Eurasia // Valdai Notes 2017. No. 63.
7. Kazantsev A.A. Prospects for cooperation between Russia and China in Central Asia // Russian Council on International Affairs. 2016. № 28. - Free access from the Internet. - http://russiancouncil.ru/common/upload/WP-Russia-China-CentralAsia-28.pdf.
8. Marat Z. How not to get lost on the Silk Road. 3 stages of development of the partnership of the EAEU and China // Eurasia Expert. - Free access from the Internet. - http://eurasia.expert/ne-poteryatsya-na-shelkovom-puti-3-etapa-razvitiya-partnerstva-eaes-i-kitaya.
9. National Technology Initiative // Agency for Strategic Initiatives. - Free access from the Internet. - https://asi.ru/nti/
10. Online Retail Exports in Russia // Data Insight Research. 12.2016 // Slideshare. - Free access from the Internet. - https://www.slideshare.net/PayPalMoscow/ss-70463243.

11. The development of total and non-primary export in Russia in 2017 // Analytics and studies of the Russian Export Center. - M .: 2018.
12. The main directions of the implementation of the digital agenda of the EAEU until 2025 // Eurasian Economic Commission. - Free access from the Internet. - http://www.eurasiancommission.org/ru/act/dmi/workgroup/Pages/default.aspx.
13. Yakushev N.O. High-tech exports of Russia and its territorial specificity // Problems of territorial development. - 2017. - № 3. - p. 62-77.
14. What's next for China? [Electronic resource] // McKinsey & Company. - Free access from the Internet. - http://www.mckinsey.com/global-themes/asia-pacific/whats-next-for-china
15. Nash J. Non-Cooperative Games // The annals of Mathematics, Second Series, Vol. 54, No. 2, (Sep., 1951), pp. 286-295
16. 张占斌 中国 经济 新 常态 的 趋势 性 特征 及 政策 取向 // 国家 行政 学院 学报. - 2015. - №1. - pp.15-20 (Zhang Zhangbin The main trends of the economic model of the "New Normal" ("New Normal") of the Chinese economy // Journal of the National School of Management. - 2015. - № 1. - Pages 15 - 20)

UDC 339.972

N. S. Slavetskaya
Candidate of economic science, associated professor
Saint Petersburg State University of Economics
nslavetskaya@mail.ru

GAS PRICING IN CHINA AND RUSSIA

Abstract: The article covers and compares the methods of pricing on natural gas and LNG in Russia and China for the last five years boosted by the growth of the world consumption of gas, that forces to renounce the models of pricing, where cost of gas tied to the costs or to oil. China has been forced to enlarge transparency of pricing on gas for cities and industrial enterprises. The collaboration of two countries strengthens by the start of gas pipeline of "Сила Siberia".

Keywords: LNG, natural gas, gas pricing, China, Russia, global gas market

In recent years most economists anticipate gas will be the fastest growing fossil fuel, with specific projections for consumption growth between 1.6% and 2.0% per year until 2040.

Natural gas plays a unique role as a source of energy for cities because gas supports the high heat requirements of urban buildings and industrial processes. Gas helps limiting air pollution, given it produces nearly zero sulphur dioxide, nitrogen oxide, and no particulate matter emissions. From urbanpoint of view the development of gas infrastructure allows easily add customers once pipeline networks are established [3].

China is the world's largest energy consumer now, accounting for 23.2% of global energy consumption and contributing 33.6% of global energy demand growth in 2017. China consumption growth was led by natural gas (+15%) [1].

The most substantial gas production growth was from Russia, the second largest producer globally after the US. In 2017, Russian production grew by nearly 50bcm, supplying the majority of Europe's consumption growth [1].

Natural gas is going to play a growing role in China's energy, as a central part of the Chinese leadership's strategy for responding to serious environmental challenges, including urban air pollution and climate change. Domestic production and pipeline imports are unable to keep up with rapidly growing demand, leaving LNG imports to fill the gap.

The world LNG trade growth accelerated by 12% (or 48bcm) in 2017, up from an average of 1.6% per year from 2010-2016. LNG supply growth from Australia and the US in turn agitated significant import growth in Asia (up 29 bcm), of which a majority was from China (17bcm) – the largest ever annual growth in LNG imports by any country [1].

So last year China became the largest contributor to global LNG consumption growth, surpassing South Korea as the world's second biggest LNG importer[4].

China's rapid economic growth and energy consumption cannot do without Russian energy supplies, as energy reserves, production and export volume ranking the forefront of Russia, is China's major energy-importing countries.

As the share of LNG in China's gas consumption rises, domestic competition grows, and a robust LNG benchmark emerges, the failure of the traditional oil-linked LNG supply model becomes certain, in favor of deals that are shorter, smaller and more flexible, and priced not against an associated commodity but LNG itself.

China's natural gas pricing has been highly regulated. Before July 2013, China's pricing model was characterized as costs plus profit margin. China launched a national natural gas pricing reform program linking gas prices with prices of imported fuels, enabling the market to play a more important role in the city gate price formulation.

The new pricing approach was applicable only to the incremental volumes of pipelined natural gas. Pricing of imported LNG and unconventional gas are based on negotiations between

producers and users, while the prices for household uses are unchanged from the levels determined by the old pricing regime [5].

However, the 2015 reform was also a step backward in the transparency and stability of the pricing mechanism due to its delinking from oil prices.

The current pricing structure also leaves a number of unresolved market distortions. Capped prices for residential gas consumption (as a part of the city gate price controls) are substantially lower than deregulated prices for large industrial consumers – the opposite pricing structure compared to the Organization for Economic Cooperation and Development countries. Such price differentials occur when the regional caps are lower than the marginal cost of supplied gas. Suppliers' attempt to compensate for such losses by charging higher prices to industrial consumers in deregulated markets where possible, thus exacerbating these price differentials and leading to crosssubsidization between various demand sectors [6].

Chinese old pricing scheme largely ignored that both supply and demand have their impact on price formulation, the new pricing approach created a link with international prices of imported fuel oil and LPG. However, though the new pricing approach reflects market pricing principles to a larger extent, the reform has its limitations. It is still not a true market system, where prices are constantly determined based on the interaction of supply and demand.

As for future reform directions, the following issues are important to consider [6]:

1. More transparent gas pricing system is necessary.

2. China's natural gas pricing is still heavily regulated, transparency is needed to be increased.

3. Clarity for the rules and conditions under which the city gate prices respond to changes in the international oil market price would create the foundation for a movement to a complete market-based pricing system.

4. It is also important to start deregulating the distribution market to correct the price distortions in the retail markets.

5. Encourage competition in natural gas production and distribution. Competition often leads to a more efficient allocation of resources and ultimately to lower prices.

In Russia the following export pricing models are used

- oil price escalation, when the price is linked, usually through a base price and an escalation clause, to competing fuels, typically crude oil, gas oil and/or fuel oil.

- gas-on-gas competition, when the price is determined by the interplay of supply and demand – gas-on-gas competition – and is traded over a variety of different periods (daily, monthly, annually or other periods). Trading takes place at physical hubs (e.g. Henry Hub) or notional hubs (e.g. NBP in the UK). There are likely to be developed futures markets (NYMEX or ICE). Not all gas is bought and sold on a short term fixed price basis and there will be longer term contracts but these will use gas price indices to determine the monthly price, for example, rather than competing fuel indices. Also included in this category is spot LNG, any pricing which is linked to hub or spot prices and also bilateral agreements in markets where there are multiple buyers and sellers [7].

- mixed pricing - the formation of gas prices, based on a combination of two main pricing models: "oil-linked" and gas-on-gas competition. Within the framework of long-term contracts, a part of the gas volumes is allocated, to which the mixed pricing mechanism is applied, as the compromise option for the seller and the buyer in the process of negotiating revision of the contract price.

- gas auctions (in 2015 and 2016 by Gazprom Export LLC) for gas delivered via the Nord Stream pipeline [2].

China and Russia energy cooperation started in the early 90's and from the "One Belt and One Road" strategy proposed for Russia and China energy cooperation provides an opportunity to propose the establishment and strengthening of energy infrastructure.

In May 2014, Gazprom and China National Petroleum Corporation (CNPC) signed the Sales and Purchase Agreement for gas to be supplied via the eastern route (Power of Siberia gas pipeline). The 30-year Agreement provides for Russian gas deliveries to China in the amount of

38 billion cubic meters per year. Power of Siberia - one of the world's longest gas pipelines – will be delivering gas to China at 20th December 2018. The Power of Siberia pipeline, which is also called the 'Eastern Route,' is one of the major energy projects between Russia and China. The pipeline could help Russia become one of China's main providers of natural gas.

So China is a major energy consumer, Russia is the energy producing country, both neighboring countries and strategic partners, but their energy cooperation is affected by many factors, at multiple levels expand the interests of the game.

References:

1. BP Statistical Review 2018 URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/country-and-regional-insights/china.html (date of the request 01.10.2018)
2. Gas auctions. URL: http://www.gazpromexport.ru/en/strategy/gas_auction/ (date of the request 01.10.2018)
3. Global gas report 2018. URL: http://www.snam.it/export/sites/snam-rp/repository/file/gas_naturale/global-gas-report/global_gas_report_2018.pdf (date of the request 01.10.2018)
4. Opportunities and challenges of China's LNG expansion. URL: https://www.platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/sr-china-lng-expansion-032018.pdf (date of the request 01.10.2018)
5. Sergey Paltsev and Danwei Zhang Natural Gas Pricing Reform in China: Getting Closer to a Market System? URL: https://core.ac.uk/download/pdf/78063525.pdf (date of the request 01.10.2018)
6. Bertrand Rioux, Philipp Galkin, Frederic Murphy, Axel Pierru, Artem Malov, Felipe Feijoo Palacios, Yan Li and Kang Wu. The Economic Impact of Price Controls on China's Natural Gas Supply Chain. URL: https://www.kapsarc.org/wp-content/uploads/2018/05/KS-2018-DP31-The-Economic-Impact-of-Price-Controls-on-China%E2%80%99s-Natural-Gas-Supply-Chain.pdf (date of the request 01.10.2018)
7. Wholesale Gas Price Survey 2017 Edition /A Global Review Of Price Formation Mechanisms 2005 To 2016 May 2017. URL: http://www.igu.org/sites/default/files/node-document-field_file/IGU_Wholesale%20Gas%20Price%20Survey%202017%20Digital_0.pdf (date of the request 01.10.2018)

UDC 339.92

O. S. Smirnova
Advanced student of St. Petersburg State University of economics
Department of World Economy and International Economic Relations
smirnova.o.s@inbox.ru

CHINESE ELECTRICITY MARKET AS THE PERSPECTIVE DIRECTION FOR RUSSIAN INVESTMENTS

Abstract: The article is devoted to the evaluation of China's electric power market and its investment attractiveness for Russian investors. The author analyzes the dynamics and forecasts of power consumption and generation, the installed capacity of power plants, the structure of power sources. Both traditional sources of energy and RES are considered. Particular attention is paid to gas generation. The forecasts of the electric power market development are considered in accordance with the Plan of China's social and economic development.
Key words: Chinese electricity market, investments, Russian-Chinese cooperation.

INTRODUCTION

China is the leader in primary energy consumption since 2009 with the figure of 3053 mln tons of oil equivalent [6], which is representing 23% of global consumption.

China accounts for more than 50% of global coal consumption. The volume of coal consumption in 2016 amounted to 1187,6 million tons of oil equivalent, which is almost 3 times more than in 2000 [6].

China takes the second place after the USA on oil consumption volume. The oil consumption volume in China in 2016 was 578,7 mln tons of oil equivalent [6] that is 2,7% or 16,8 mln tons of oil equivalent more, than in 2015.

Gas consumption in 2016 has grown by 7,7% or 15,04 billion cubic meters [6] in comparison with 2015. Since 2000 gas consumption has increased more, than by 8 times, - to 203,31 billion cubic meters.

In 2016 the GDP of China was 11,2 trillion US dollar [9] that is 0,14 trillion US dollar more, than in 2015. On GDP volume China takes the second place in the world after the USA.

The analysis of Chinese economy growth dynamics specifies on existence of a tendency to decrease in growth rates of GDP since 2010 (Figure 1.) The average growth rate since 2010 according to the World Bank is 8,11%. The peak of growth of Chinese economy was observed in 2007 – 14,2%. High growth rates of economy were provided at the expense of a gain of investments. The current basic indicators show slowdown of economic development of China.

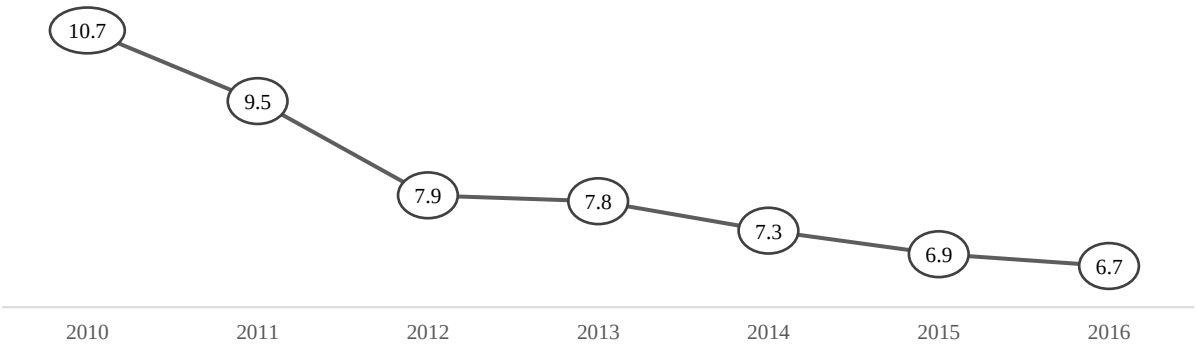


Figure 1. Dynamics of GDP growth of China for 2010-2016, %
Data source: [9]

The slowdown in the growth rate of Chinese economy is demonstrated by the dynamics of foreign direct investment (Figure 2). Since 2013, there has been a downward trend in investment in the Chinese economy. At the end of 2016 the inflow of foreign direct investment decreased by 29,7% [9].

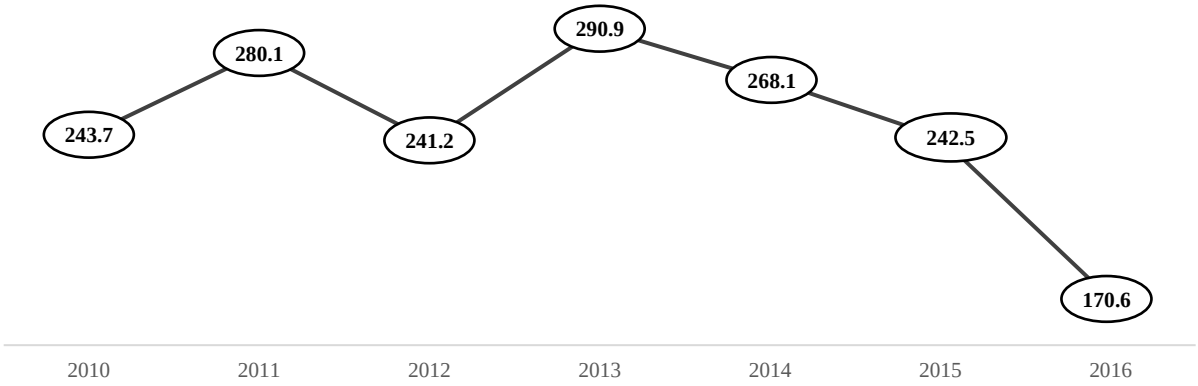


Figure 2. Inflows of foreign direct investments (at the current rate) for 2010-2016, USD billion
Data source: [9]

According to forecasts of the analytical companies IHS and Wood Mackenzie, slowdown of growth rates of the Chinese economy is expected to continue. IHS forecasts that growth rates will decrease to 2035. Experts of Wood Mackenzie do more optimistical forecast: since 2030 small increase in growth rates (Figure 3) is expected. Nevertheless, according to the Plan of social and economic development of China for the 13th five-years period (2016-2020), till 2020 the average rate of a GDP gain at least has to be 6,5%.

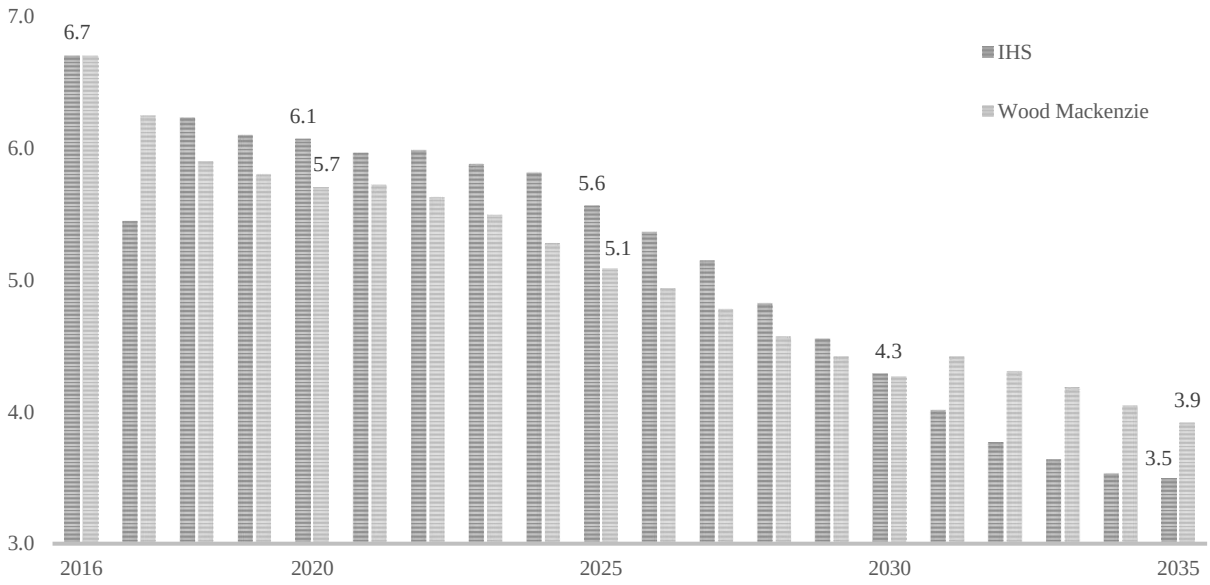


Figure 3. The GDP growth forecast for China, %
Data source: [5], [8]

But it should be noted, that China and Russia are political partners, so Russian companies reduces political risks to minimum, and it helps to develop cooperation. Energy sphere is a likely to be the most important in the relation between Russia and China and PJSC “Gazprom” is

searching the opportunities for the implementation of joint projects with Chinese companies in electric energy industry.

Therefore, the hypothesis is that Chinese electricity market is the promising direction for Russian investments.

To check the hypothesis the author analyzes the power sector of China through statistics, articles and analytical reviews, defines the future demand and the most perspective directions for investment.

CHINESE ELECTRICITY MARKET

China is a world leader in electricity consumption and generation, as well as in the total installed capacity of power plants. Measures of the Chinese Government reducing coal generation have a stimulating effect on the using of renewable energy and gas generation.

Power consumption

Despite the slowdown in the Chinese economy, the country remains the world leader in terms of electricity consumption. Electricity consumption in China in 2016 amounted to 5920 TWh, which is 40% or 1720 TWh more than last year [2]. Consumption growth was observed in all sectors, but the manufacturing industry (secondary sector) clearly dominates (Figure 4): demand growth compared to 2010 amounted to 1066 TWh (more than 33%).

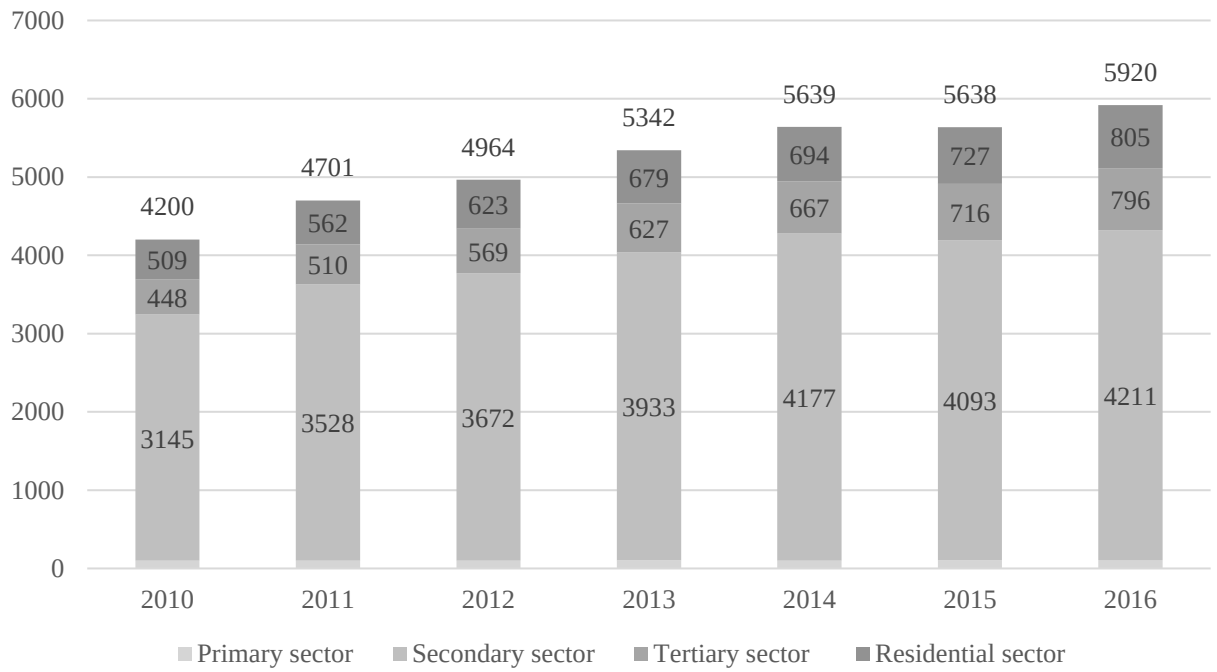


Figure 4. Electricity consumption by sector in 2010-2016, TWh
Data source: [2]

The link between economic growth and energy consumption in China is beginning to weaken. The introduction of energy-efficient technologies, especially in energy-intensive industries, and the growth of the service sector in China reduces the energy intensity of GDP (Figure 5).

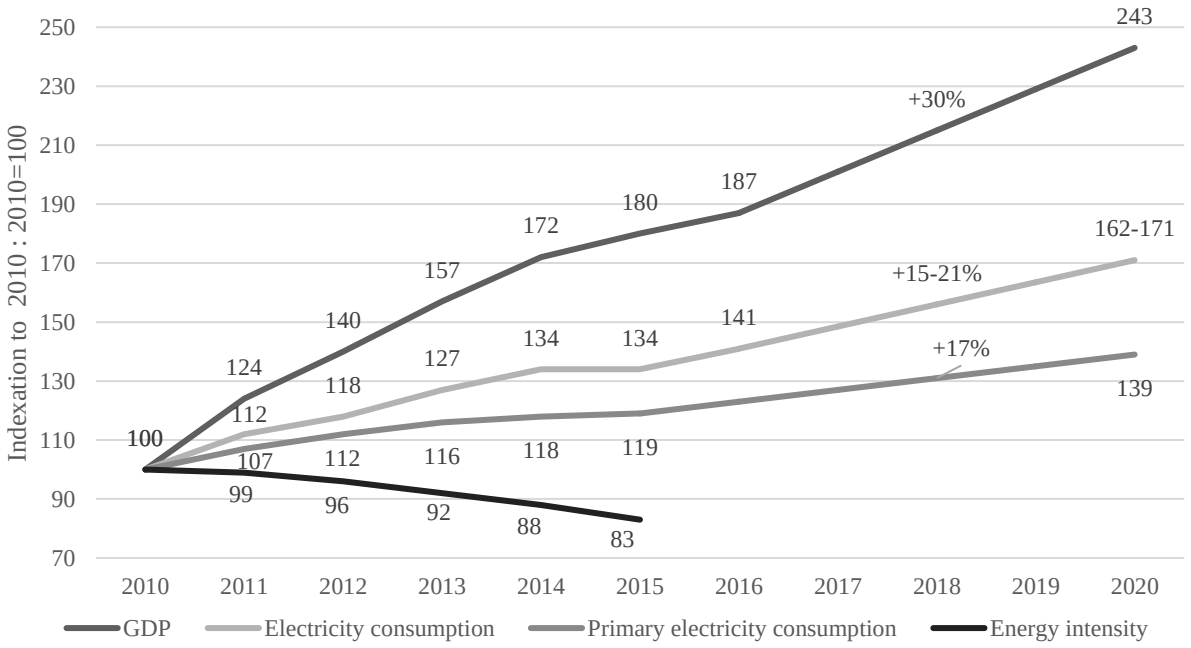


Figure 5. GDP, primary energy consumption, electricity consumption, energy intensity of GDP (at constant PPP) for 2010-2016 and forecast until 2020
The dotted lines are the linear predictions based on the targets of 2020. Percentages - GDP growth and energy consumption from 2016 to 2020. Data about the energy intensity of GDP are available only up to 2015.
Data source: [2]

According to the plan of socio-economic development for the 13th five-year plan (2016-2020), GDP growth from 2016 to 2020 will be about 30%. At the same time, the growth of electricity consumption for the same period is expected only at the level of 15-21%. The growth of primary electricity consumption will be 17%. These data indicate a gradual disconnect between electricity consumption and economic growth.

It is assumed that 80% of energy consumption will be provided by its own generation. By 2020, electricity consumption is expected to grow by 3,6-4,8% per year to 6800-7200 TWh.

Power generation

In 2016 electricity production has increased by more than 5% (or 296 TWh) compared to 2015, reaching 5990 TWh [4] (for comparison, the same indicator of EU is equal to 3211 TWh, of Russia – 1071,8 TWh [1]). Most of the electricity was produced mainly at coal-fired power plants. Their share in 2016 amounted to 65% (or 3906 TWh) of all produced electricity (Figure 6).

Compared to 2010, electricity generation increased by nearly 40% (or 1,761 TWh). Coal-fired power plants still have the largest share of the growth in electricity generation – 40% or 680 TWh.

Since 2010 the generation of electricity from gas-fired power plants has more than doubled: from 78 TWh to 188 TWh [2]. Share of gas generation has increased by 1% since 2010 and amounted to 3% of the total output in 2016. Basically, gas generation in China is used to cover peak loads.

At the end of 2016, the share of hydro power plants and renewable energy sources in electricity generation was 24,8% (or 1488 TWh) [2]. For comparison, in Europe this figure was 29,6%, and if we exclude biomass, only 23,8%.

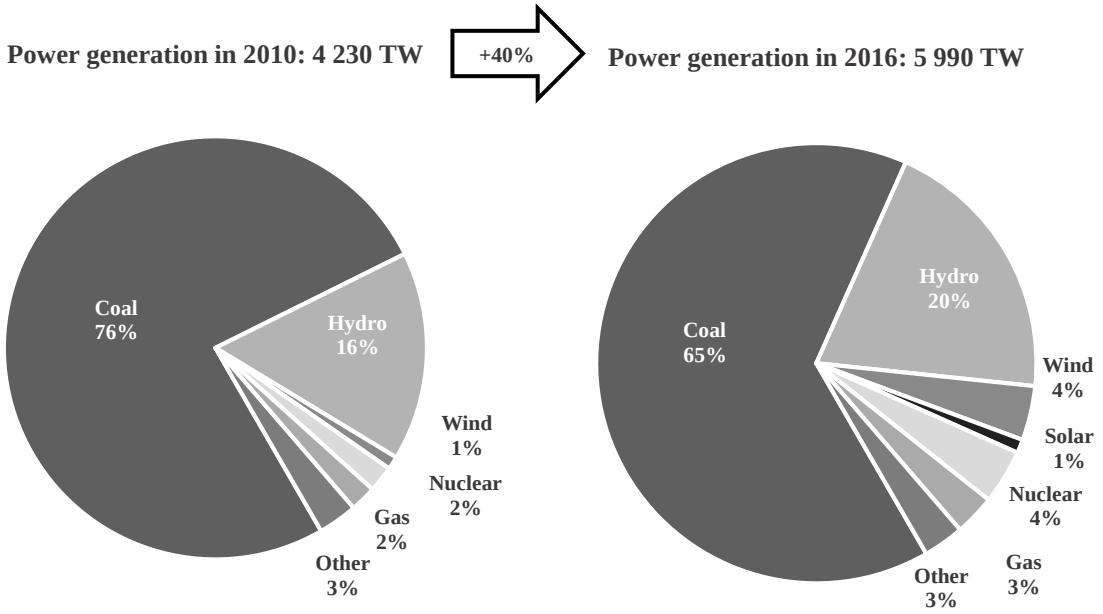


Figure 6. Structure of electricity generation in China in 2010 and 2016
Source: [2]

Power installed capacity

China is the first among all countries in the world in terms of the total installed capacity of power plants. According to data for 2016, the total installed capacity is 1645,75 GW, which is 139,02 kW (9,2%) more than in 2015. The average growth rate of installed capacity since 2010 is 9,3% [4].

In 2016 the installed capacity of termal power plants and nuclear power plants was about 1046 GW or almost 64% of the total installed capacity. Over the past 7 years this figure has increased by more than 40% (300 GW). The main role continues to be played by coal-fired power plants, the capacity of which according to the data for 2016 is 943 GW, which is 45% (291 GW) more than in 2010 [4]. Such dynamics indicates low efficiency and insufficient measures of the Chinese government to reduce coal generation.

The widespread using of coal for power generation has led to China's leading position in terms of greenhouse gas emissions. The share of China in the global indicator of greenhouse gas emissions at the end of 2016 was 27,3%. Due to the deterioration of the environmental situation in the country, China joined the race for the transition to alternative energy using renewable energy and gas generation. During the period from 2010 to 2016 the installed capacity of gas generation increased more than 7 times: from 9 GW to 70 GW. The dynamics of capacity commissioning for the period under review, as well as the goals of the socio-economic development plan for the 13th five-year plan are shown in Figure 7. It is expected that by 2020 the installed capacity of gas generation will be 110 GW or 8,7% of the total capacity, which is 57% (40 GW) more than in 2016.

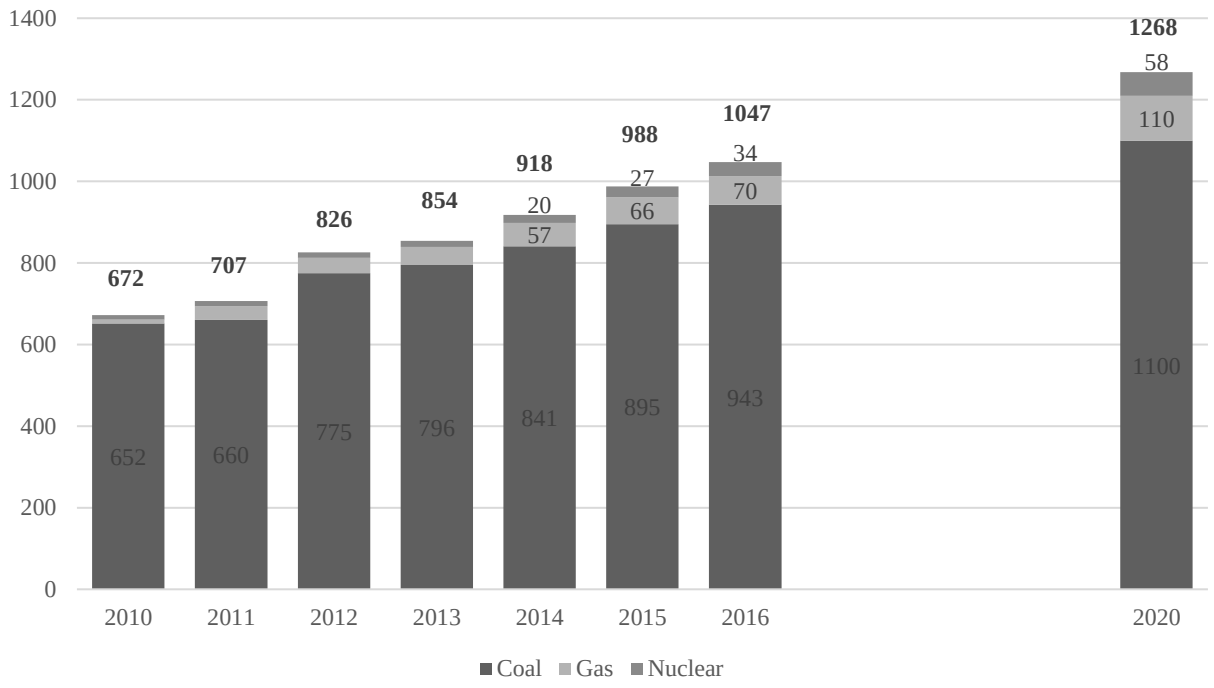


Figure 7. Installed capacity dynamics of power plants operating on traditional energy sources, GW
The target value for 2020 is specified according to the plan of social and economic development of China for the 13th five-year plan.
Source: [4]

In 2016, the installed capacity of renewable energy source, including hydro power plants, has amounted 558 GW, which is 34% of the total installed capacity. During the period from 2010 to 2016 the renewable energy sources installed capacities increased more than 2 times.

The construction of new solar power plants and the increase in installed capacity from 43 GW to 77 KW (+34 KW) in 2016 allowed China to set a new world record (Figure 8).

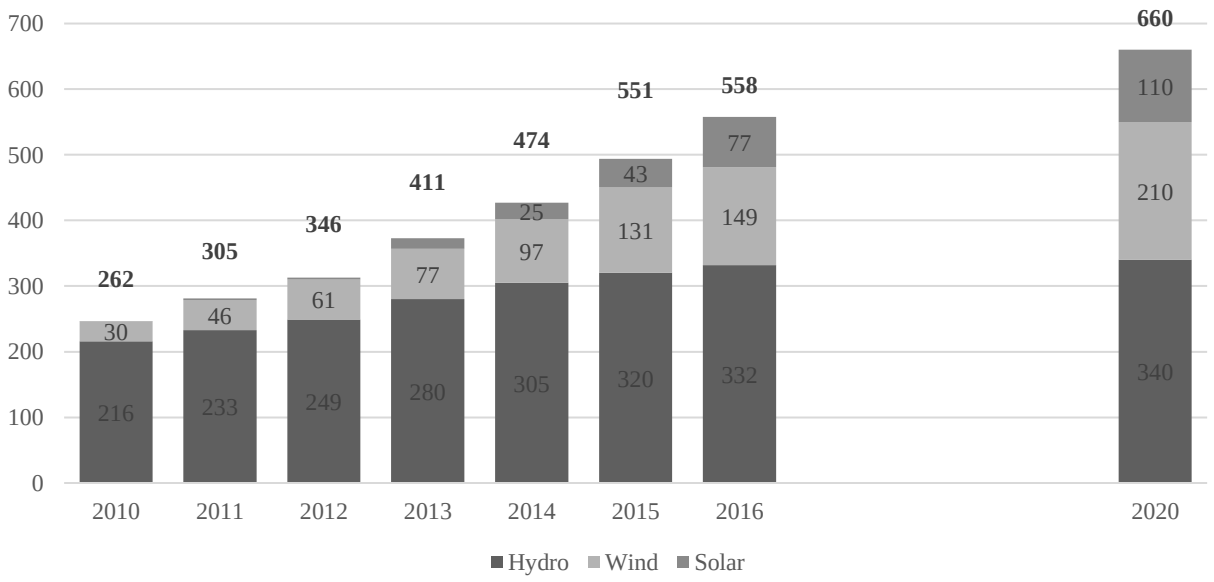


Figure 8. Installed capacity dynamics of power plants operating on renewable energy sources, GW
The target value for 2020 is specified according to the plan of social and economic development of China for the 13th five-year plan.
Source: [4]

Electricity price

For more than 10 years, the Chinese government has been reforming the electric power industry, the ultimate goal of which is to create a market mechanism for electricity pricing, but this process is slow, and tariffs are still set by the state.

The wholesale electricity tariff for gas power plants is determined by the regional authorities and approved by the State committee for development and reformation of the China.

Tariffs are divided into "single-rate" (year-round) and "double-rate" (including an increased rate for peak demand periods). In most regions, a "single-rate" tariff is applied for gas stations, a "two-rate" tariff is applied, for example, in Shanghai, where companies whose annual number of capacity use hours use is less than 2500 hours are paid a compensation of 0,22 yuan per kWh for electricity generation during the peak demand period (Figure 9).

In a number of provinces in China there is no special tariff for gas-fired power plants, so gas has to compete with coal on a "market" basis, and decisions on subsidies or special tariffs are made by local authorities on an "individual" basis.

Some regions (Zhejiang, Hubei, Shanghai) have introduced separate tariffs for different types of stations. In other regions (Hainan, Hainan, Tianjin, Beijing) there are regulations on a special price for the purchase of electricity from gas stations, regardless of their type.

Jiangsu is considered to be the province with the most developed pricing mechanism for electricity from gas-fired power plants. Jiangsu is the only region in China where the tariff for electricity from gas stations is directly linked to gas prices at the entrance to the regional gas distribution network.

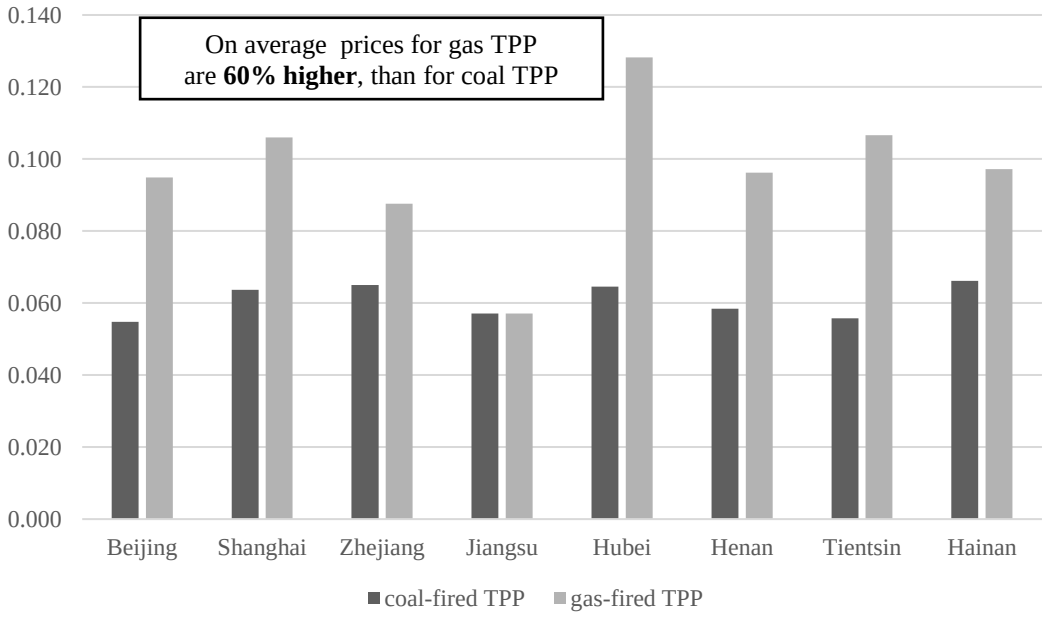


Figure 9. Electricity prices in China in 2016, USD/ kWh
The average annual exchange rate CNY/USD for conversion is equal to 6,644.
Source: [3], [9]

Wind and solar energy in China is supported in the form of "green tariffs", which are differentiated according to the geographical type of resources or categories. "Green tariff" (connection tariff) is an economic and political mechanism designed to attract investment in renewable energy technologies. Depending on the intensity of solar radiation or wind speed, tariffs are adjusted to create the same economic conditions throughout the country. Solar power plants are provided with a "green tariff" for 20 years. For wind turbines green tariffs are approved through tender procedures.

Forecast

The 13th five-year socio-economic development plan calls for further use of innovation and seeks to find a compromise between economic growth and environmental protection. The Chinese government has set targets for the country's economic and energy sectors. By 2020, the installed capacity of power plants should be 2000 GW, which is 300 KW higher than in 2016.

The commissioning of new capacities of coal-fired power plants should be about 200 GW. At the same time, investments in renewable energy up to 2020 will amount to about 340 billion dollars. The total installed capacity for wind and solar power plants by 2020 should be 210 and 110 GW respectively. The installed capacity of gas generation by 2020 should be 110 GW, which is 57% (40 GW) higher than the current figure. Also, a slight increase in the capacity of hydro power plants and nuclear power plants is expected: by 7,9 GW and 24,4 GW, respectively. The forecast of changes in the structure of installed capacity of power plants is shown in Figure 10.

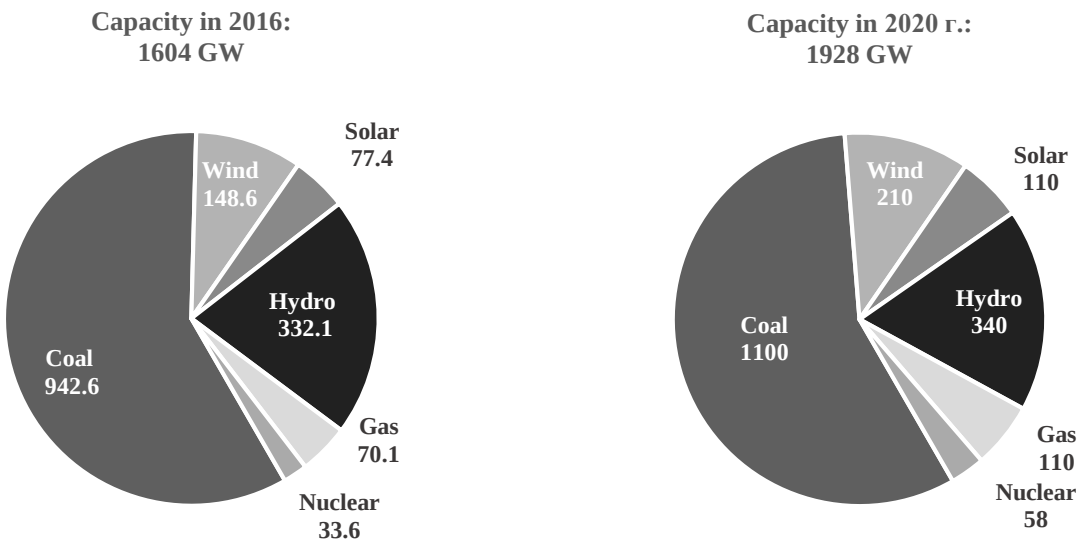


Figure 10. Installed power generation capacity in China, GW
Source: [2], [7]

China's energy market reform, launched in 2015, has already had an impact on the country's energy sector. In the coming years, the impact of the reform will increase, especially through the introduction of electricity trade. In 2016, there was a surge in long-term electricity trade, and a pilot project on spot trading is planned to be launched this year.

CONCLUSION

According to the plan of socio-economic development of China by 2020 the installed capacity of gas generation will reach 110 GW, for which it is necessary to introduce 40 GW of new capacities (+57% compared to 2016). The annual increase in gas generation capacity for the period 2016-2020 should be 11,9% [3].

Deliveries by gas pipeline “Power of Siberia” are planned to start in December of 2018, so China will have enough gas for generation. Nowadays PJSC "Gazprom" along with CNPC and other Chinese companies consider the possibility of constriction a thermal power plant Sunyang with 960 MW installed capacity. Moreover, there is one more perspective project – thermal power plant Langfang with total installed capacity of 800 MW.

Thus, the construction of new gas thermal power plants can be considered as a promising direction for cooperation with Chinese energy companies, given the increase in gas exports from Russia.

References

1. Ministry of energy in Russian Federation, data. [Electronic resource]. Access mode: https://minenergo.gov.ru/activity/statistic
2. China Electricity Council. [Electronic resource]. Access mode: http://english.cec.org.cn/
3. Data of the Representative office of PJSC "Gazprom" in China, may 2017. Internal corporate data.
4. Energy Transition in the Power Sector in China: State of Affairs in 2016. Energy Brainpool (2017). [Electronic resource]. Access mode: https://www.agora-energiewende.de/fileadmin/Projekte/2017/JAW_China_2016/Agora_Energy-Transition-China-2016-EN_WEB.pdf
5. IHS Markit. [Electronic resource]. Access mode: https://ihsmarkit.com/index.html
6. International Energy Agency. [Electronic resource]. Access mode: https://www.iea.org/statistics/
7. National Development and Reform Commission [Electronic resource]. Access mode: http://en.ndrc.gov.cn/
8. Wood Mackenzie. [Electronic resource]. Access mode: https://www.woodmac.com/
9. World bank Data. [Electronic resource]. Access mode: https://data.worldbank.org/

UDC 378.4; 339.924

A.E. Zubarev
Doctor of Economics, professor
First Vice Rector for Strategic Development and International Cooperation

I.T. Pinegina
Candidate of Economic Sciences, Associate Professor

FUNDAMENTALS AND CONDITIONS FOR TRAINING OF FOREIGN EXPERTS IN THE FIELD OF DIGITAL ECONOMY AT PACIFIC NATIONAL UNIVERSITY

Abstract: In the present article the conditions for training of foreign experts in the field of digital economy at Pacific National University are considered. International cooperation is implemented in various forms - educational, scientific and social projects that form personal and technological communications. The basis and the result for training of experts in the field of digital economy is formation of their technical and socio-economic competencies.
Key words: digital economy, principles of the digital economy development, Pacific National University, international cooperation.

Introduction

Relevance and necessity in training of experts, including foreign ones, in the field of digital economy do not require special substantiation and proofs, as the problems of the digital economy development are on the agenda of the President and the Government of the Russian Federation. [1; 6]

Transformation and development of economic systems, and, first of all, national economies of any countries, are conditioned by the general trends of globalization and formation of new economy. Integral and, perhaps, the main feature of new economy is the digital economy, which is often considered as a form of new economy manifestation. [2, p. 177]

To understand primary methodological foundations for creation of the training system for experts in the digital economy, it is necessary to present a brief description of regularities in the development of new economy and its foundational form - the digital economy.

Hypothesis

Attributes (features and regularities) of the digital economy act as the basis for formation of modern educational environment - technological upgrade and account of the influence, exerting by the development of economy and the world community.

Research methodology

According to the analysis of specialized literature, modern researchers single out more than ten attributes, distinctive features, regularities and rules of the digital economy functioning and, consequently, doing business in these conditions. These regularities and rules give grounds for modernization of education system at least in two aspects: in the technical (technological) section and socio-economic understanding. Presence of digital technologies and socio-economic manifestations in modern society are indicated in nearly all definitions of the digital economy. The main features and regularities in development of the digital economy as a form of new economy development are described below.

1. A principle of "disappearance" of material constituent and its replacement by "non-material" component: human capital, ideas, knowledge, artificial intelligence, Soft Ware, etc.

2. A principle of space "contraction" and lessening of distance importance in the conditions of the digital economy globalization. This is the most important principle of modern economy. Globality of the digital economy unites manufacturers, consumers and competitors regardless of their geographic localization.
3. A principle of time "contraction" means increase in the speed of all economic relations, changes and, most importantly, management decision-making. In the conditions of quick communication in public production time becomes a great advantage and responsibility simultaneously.
4. A principle of "smart" organization and management is equally important principle in the digital economy. Human capital, people, knowledge, ideas and artificial intelligence are the leading value of the digital economy.
5. A principle of "network" growth and development in the conditions of the digital economy is related to a special "viral" nature of communications and, first of all, because of electronic network (Network).
6. A principle of technological platforms (including digital forms) and standards value. This principal is caused by the rapid spread of successful single solutions that afterwards turn into the basis for large-scale production, generally ensuring the gaining of a larger market share.
7. A principle of information work "efficiency" directs participants (subjects) of the digital economy to the ordering of large information array. All participants require "filtering" of information with the purpose to single out particularly important and useful information in each specific case.
8. A principle of market "virtuality" leads to irrelevance of physical manifestation or presence at the market. Comparison of prices and competitive advantages of production can be made without visiting of shopping centers; special programs can provide search of production with optimal price-quality ratio. Physical barriers in competition disappear.
9. A principle of expense structure change in the digital economy is significantly relevant. The information component in the cost of goods increases, and the material constituent decreases. Operation or consumption of high-technology products (per unit of advantageous effect) costs cheaper for consumer, brings greater sense of satisfaction and admiration.
10. A principle of "impulsive" motivation. This principle means that, because of the Internet, the choice of goods and purchasing is often done impulsively, as a single and instantaneous process.
11. A principle of the digital economy "internationalization" can be explained as manifestation of the international division of labor on the one hand, and development (globalization) of international economic relations, on the other hand. Thanks to the digital technologies, globalization of economy lifts the barriers and restrictions related to manufacture and consumption of products. International standardization and the movement of human capital also contribute to the internationalization of the digital economy.

Results and discussion

All conditions for high quality training of students are available at Pacific National University. PNU actively develops international cooperation. The Program of Internationalization of the University Activity until 2020 was developed at PNU and now is being implemented. In 2017 National University Rating PNU ranked 50th position by parameter “Internationalization”. Currently PNU has 173 signed Agreements on Cooperation with foreign universities, mainly from Asia-Pacific Countries: China, Republic of Korea, Japan.

In 2016/2017 academic year 874 foreign students from 21 countries of the world studied at PNU. This number includes 771 foreigners studying under the Degree programs and 103 foreigners studying under the Russian language program and Pre-university Russian language program. Specific weight of foreign students in PNU general student body was 8.73%.

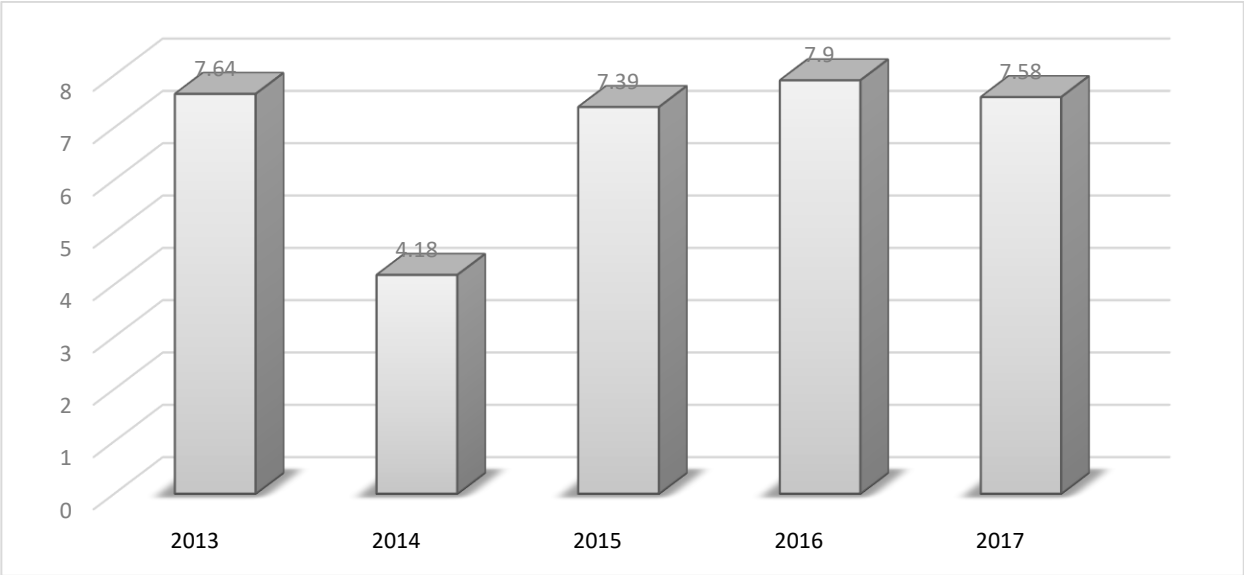


Figure 1. Specific weight of the number of foreign students (except the citizens of CIS countries), who completed the study under principal educational programs of Higher professional education in the general number of graduates, in %, for the period from 2013 to 2017 years [4]

Nowadays, in the field of international education, an educational institution requires to satisfy individual unique demands of the foreign students by offering a wider range of educational services that take into account ethnic, national and intercultural differences [3], as well as to provide a modern level of teaching technologies. In the latter case, such demand is performed by the requirements of the possibility to use the electronic educational environment that includes a complex of elements, providing sufficient information base - from curricula to methodological support of certain subjects.

PNU is a member of the following international university associations and unions: the Association of Sino-Russian Technical Universities (since 2011), the Association of the Universities of the Russian Far East and Siberia and North-Eastern Regions of China (since 2012), the University of the Shanghai Cooperation Organization (since 2012), the Association of Asian Universities (since 2013), the Association of Sino-Russian Economic Universities (since 2013), the Russian-Kyrgyz Consortium of Technical Universities **(**since 2013), the Euroasian Universities Association (since 2009), the Association of Institutions of Higher Education of the Russian Federation and Japan (since 2016).

Table 1. Evaluation of PNU international cooperation according to the monitoring of higher education institutions [5]

Year	Value of indicator	Threshold value	Changes in comparison with the last year
2017	8,071	1	- 2,9 %
2016	8,31	1	+ 9,2 %
2015	7,61	1	+77,0 %
2014	4,3	1	+225,9 %
2013	1,68	1	-

Large-scale international projects take place at PNU on the constant base. Among the projects are: International Forum of the University Presidents of the Russian Far East and Siberia and North-Eastern Regions of China, International Forum of Students of the Universities of the Russian Federation and the People’s Republic of China "Youth of Russia and China: a Vector to the Future", International Russian and Chinese Volunteer Camp "Flowers of Memory", Russian

and Chinese business incubator, International Forum in Architecture, Design and Urban Planning "The New Ideas of New Century", Far Eastern Student Sports Festival "New Generation", summer schools for studying of the Russian language and culture. All the projects in varying degrees form both personal and technological communications.

Nowadays PNU realizes the programs of joint training with issuance of two and one diplomas with the universities of China and France. PNU also realizes international exchange programs with the universities of Republic of Korea, China, and Japan.

Under the agreement with Khabarovsk City Administration, the university conducted seminars for heads and experts of Harbin Mayor's Office (China) in the field of development of government workers' economic and digital competencies.

One of the priority fields of the university development is formation of a partner pool. Cooperation with this pool allows to implement the training of staff in the field of digital technologies application for companies and organizations. Implementation of regional and all-Russian projects allowed Pacific National University to get the official status of Far Eastern "Center for Innovative, Technological and Social Development of the Region".

In the field of scientific research, the main areas for adoption of the digital technologies are crowdsourcing, robotics and artificial intelligence technologies.

In the book "Crowdsourcing" Jeff Howe points out that the collective intelligence is more productive than individual, even the most genius person [7]. In the field of scientific research, availability of Internet networks allows to involve specialists and experts in the performance of work within the research groups, working entirely in the field of their scientific specialization. For example, the representatives of Chungnam National University (South Korea) are strongly interested in carrying out of the university scientists' research in the field of metallurgy and the use of nanomaterials in industrial production and there are plans to implement a joint project in two national territories.

Within the framework of the open regional robotic festival "Robofest- Khabarovsky Krai" the festivals of Pacific National University high technologies "Robomech" are held. Here are presented the results of development, made by the teams with involvement of foreign participants. The PNU Scientific Training Center in Robotics implements the project "Togudev", focused on transfer of practical skills in the field of robotics and information technology. The students from China and South Korea are also interested in it.

In 2017, 30 projects of PNU participants, including "The System for Automated Drawing Up of Vehicle Collision Report" and "Intelligent Automated System for Control of Urban Passenger Transportation" were presented at the All-Russian Scientific and Practical Conference of Young Scientists, devoted to the issues in practical implementation of the development results in priority areas of science and technology development. Competent experts pointed out the high level of the development results, the novelty of decisions and the original approaches, as well as the economic viability of the projects.

Conclusion

Thus, it can be easily detected that the basic component for training of experts in the field of digital economy can not but base on two groups of competencies: technical and socio-economic. The first group of competencies presupposes sufficiently profound training in the block of technological subjects, and the second - in the subjects of economic, managerial and social competencies. In our opinion, training of high-quality experts in this field requires use of engineering and economical approach in education, as well as designing of five-year training trajectory based on the balance of the digital technology competences and the competences of the digital economy itself.

References:

1. Vesti Economics / Putin: the Digital Economy is the Topic of the Russian Federation National Security. [Electronic source]. - URL: http://www.vestifmance.ru/articles/87680 (reference date: February 27, 2018);
2. Zubarev Aleksandr Evstratievich. The Digital Economy as a Form of Manifestation of New Economy Development Regularities // Bulletin of PNU №4, 2017;
3. Kozulina A.P. Actual Problems of Preparing Foreign Students for Studying in Russian Universities // Modern problems of science and education. – 2014. – № 5. [Electronic source]. - URL: http://www.science-education.ru/ru/article/view?id=15213 (reference date: September 22, 2018).
4. According to the data from: Monitoring – GIVC (Main Information and Computing Center): Pacific National University. [Electronic source]. - URL: https://miccedu.ru/monitoring/ (reference date: September 25, 2018);
5. According to the data from: Rating of 2017 monitoring of higher education institutions effectiveness according to the methodology of the Ministry of Education and Science. [Electronic source]. - URL: https://msd-nica.ru/reyting-monitoringa-effektivnosti... (reference date: September 25, 2018);
6. The Russian Government / Documents / On the Approval of the Program "Digital Economy of the Russian Federation". [Electronic source]. - URL: http://government.ru/docs/28653/ (reference date: February 27, 2018).
7. Howe, Jeff. Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business. – 1. – Moscow: OOO “Alpina Publisher”, 2016. – 288 p. [Electronic source]. - URL: http://znanium.com/go.php?id=914076 (reference date: July 05, 2018).

UDC 339

D. S. Tyumina
Postgraduate student
dasha.tyumina@gmail.com

INCREASING RUSSIAN INNOVATION ACTIVITY - CHINESE WAY

Abstract: Russia and China are close political allies. Meanwhile, as Russia is still struggling to build developed and innovation-driven economy, China paves the way as a role model state that successfully creates investment-friendly business environment, conducive to developing and testing technological and business innovations. This article aims to demonstrate uniqueness and complexity of modern Chinese approach to implementing innovative methods of management. The relevance of the research is emphasized by the fact that Russian and Chinese markets share many complexities. In this regard, understanding of specific business culture of China and its customers' preferences may help to improve corporate strategies of Russian companies as well as contribute to further strengthening of mutually beneficial economic partnership between the two countries.
Keywords: innovation activity, Chinese business innovation, business culture, business model innovation, innovative products, consumers' preferences, emerging markets

Introduction

In market economy companies strive to fill a specific market niche and maintain sustainable competitive advantages. It is especially relevant in an unstable economic conditions. New players that enter the market using new strategies and business models change the rules of the game and make this task much more complicated for established firms. They have to take new protective measures that will ensure the flexibility and sustainability of their business models and allow them to respond to new challenges immediately. For Russian companies these protective measures serve as an important way to maintain competitiveness which remains to be very low in terms of international comparison. Thus, the increasing of innovation activity of Russian enterprises is a task of strategic national importance. Companies in Russia can't rely on domestic demand to facilitate innovative development, because low income level of the Russian population limits its access to modern hi-end goods and services. New methods of organizing and managing innovation processes should be introduced in order to increase innovation activity in Russia.

The model of Chinese business innovations aimed at increasing the innovative activity of entrepreneurs in regions with a relatively low standard of living represents a particular interest. Chinese entrepreneurs introduce lean and affordable high-quality products, which can positively affect the quality of life of the population. Thus, economic transformation towards meeting the needs of financially constrained consumers in rapidly developing emerging market of Asia very resembles the Russian realities.

Hypothesis

In this regard this study proposes to examine a hypothesis that Chinese models of business innovations can be applicable as a way to revive innovation activity of Russian enterprises.

Research methodology

The study employed such scientific methods as analysis, synthesis, group comparison, logical modeling and data systematization. The accuracy of insights into the problem is enforced with experts' assessments, analytical data from specialized publications as well as personal research of the author.

Different aspects of organization and management of innovation activities in general were elaborated in the works of such researches as Zott C., R. Amit,. Hamel G,.Timmers P, Tucci C. However these authors do not examine particular categories like, for example, lean innovations in full their complexity. There is also lack of theoretical base that leads to inconsistency of empirical data that may negatively impact business activities of enterprises. Some definitions of business model innovation have been proposed in scientific literature. However a unified and comprehensively supported approach has not yet been formed. The complexity of interpretation

for each definition varies depending on the purpose of a particular research study. Within this article business model is defined as a complex of plan and resources that allows you to create value for customers. Innovative business model provides with new method of forming new value. It should not be exactly an offer of a fundamentally new product or service, but rather a search for a new method supply.

Nowadays the development of innovative products turns out to be the most effective way to achieve long-term business sustainability. Hi-end products and cutting-edge technologies are the result of sophisticated production process. Market competition shrinks the life cycle of goods and limits time of their development. Emerging problems cannot be fixed using a standard set of tools. Entrepreneurs are turning to new innovative approaches to form flexible, cost and waste sensitive model of lean production.

Business model innovation is a relatively new managerial concept that gradually gains recognition among established enterprises. Implementation of this model seeks to increase company's profitability through redefining existing product or service, delivery schemes, sales pattern etc [1].

China, as a main trading partner of Russia, represents a particular interest as an example of emerging market where local government supports cultivation of innovative business environment. Traditional methods of production are still widespread there. Meanwhile Chinese culture strongly influence the buying preferences of local customers.

There are some of their behavioral features that also forms Chinese entrepreneurial mindset:

1. Chinese are known for their skills of saving capital, they won't pay extra if lookalike and cheaper products are available. Price targeting should be managed very carefully;
2. They plan for short and mid-term periods and don't really care about product durability over a long distance;
3. They prefer frugal innovations made by local brands instead of more expensive, imported products.

Nonetheless, distinctive features of Chinese innovation industry are creativity, flexibility and fast output. Business approach of Chinese developers' can be summed up in few points:

1. Business models are implemented fast and is due to quick substitution if considered wrong;
2. Chinese developers tend to merge different models to create a workable one;
3. They rely on lean innovations to retain market competitiveness;
4. They are not afraid to challenge international markets and build global brands.

Chinese company NIO demonstrates the way local developers innovate and introduce the results of their work into practice. This company was established in 2014 and has already become the main competitor of western electric and self-driving carmakers [2]. NIO aims to create more affordable models adopted to the taste of Chinese customers. The developers of the company define their product as an experience crafted to meet drivers' expectations. For this NIO tries to build direct relationship with clients using distributor's methods, including sales and after sale maintenance.

NIO's business model covers all facets of user experience, including recharging, which remains problematic in China due to lack of infrastructure. The company is developing charging stations, connected to cloud data-centers, and mobile charging vehicles. Chinese automakers try to adapt to expectations of their clients through testing various offer options, resulting in the right match of product and market. They do not just copy upmarket models, but change and innovate to meet particular tastes.

Chinese developers use their domestic market as a springboard to global markets. They improve and adjust business models and technologies and eventually deliver more services and products outside the country steadily becoming key players on the international arena.

It is wrong to assume China remains to be a copy making country. Today she is one of the leading global center of innovation. Entrepreneurial environment, unique innovation culture, quick iteration and flexibility created there helps to address customers' needs, which distinctly differs

from that in the West. Chinese developers provides us with a good example that business model innovation is a complex and multifaceted process. Local business culture and unique customers' expectations add to the complexity of developer's task and require proper research about the market and clients to be addressed.

Another striking example of transformative nature of innovation can be seen in Chinese rural areas where e-commerce is developing at a very fast pace. Farmers start selling agricultural products on their own. For the last five years, this type of business has become very widespread, and it dramatically improved the well-being of rural residents. According to forecast, average annual sales growth will hit 40% by 2021 when market volume also should exceed 2.3 billion yuan [3].

Experts point out that cross-border e-trade of agricultural products has obvious advantages – rural dwellers get not only inward, but also outward sales channels. Online shopping is becoming more and more popular around the globe, but especially dynamic cross-border e-shopping has started to develop in recent years. Growing number of entrepreneurs strive to expand their business through electronic commerce platforms. Social networks allowed the model of transnational e-commerce to be established. It gives an opportunity for a producer to create direct relationship with a client and receive statistic data on the demand and preferences of customers in the international market. The supply chain has become much shorter, production costs have decreased.

E-commerce has clear advantages over traditional commerce. Network platform allows agricultural products to reach foreign buyer directly. That is why many Chinese manufacturers strive to open their own online businesses. E-commerce has made it possible to effectively transform the production chain of the agricultural products delivery to consumers and it has resulted in a significant decrease in the inter-chain price.

Chinese farmers and foreign buyers receive mutual benefits, and traders solve the problem of sale seasonal stock. A new form of commerce is spreading rapidly in rural China, as it allows to increase the well-being of farmers. Consumers from other countries, including Russia, also benefit from the development of rural e-commerce there.

The Chinese "One belt, one road" transregional development strategy indicates the need for an innovative approach to the search of new models and forms of trade and business, including in the field of transnational e-commerce. The PRC state agencies announced its readiness to actively promote the development of e-trade in rural areas and form delivery networks in the central and western regions of the country. By 2020, the volume of cross-border e-commerce in Russia will double and reach $ 6 billion [3]. China and Russia agreed to expand bilateral trade in agricultural products and agricultural investment cooperation.

The developing markets may look not attractive at first sight, however, they have vast perspectives. To ensure competitiveness in these markets, entrepreneurs have to give up traditional business models and redevelop new approaches. Russian companies may try to adapt Chinese business model innovations in their ground realities. Currently, the turnover of e-trade between Russia and China accounts for 80% of total sales in Russian transborder e-commerce. Transformation and practical application of Chinese scientific and technological achievements in Russia may create new trends and add new impetus to further strengthening of bilateral trade and economic cooperation between the two countries. In the long run production of high quality mass products in an affordable price range, especially made with limited resources, may be transferred to the developed markets as a reverse innovation.

References:

1. Газуль С.М., Ананченко И.В., Кияев В.И. Проектирование прототипа клиентского устройства для гибридной информационной системы поддержки образовательного процесса в вузе //Современные проблемы науки и образования. — 2015. — № 1; URL: www.science-education.ru/125-20219 (дата обращения: 16.08.2015).

2. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.
3. Zott C. Business Model Design and the Performance of Entrepreneurial Firms /C. Zott., R. Amit, //Journal of Management. – 2007. – p.9.
4. China's audacious and inventive new generation of entrepreneurs.-Sep 23 2017 https://www.economist.com/briefing/2017/09/23/chinas-audacious-and-inventive-new-generation-of-entrepreneurs
5. How e-commerce is transforming rural China //The New Yorker.- July 23 2018 https://www.newyorker.com/magazine/2018/07/23/how-e-commerce-is-transforming-rural-china

UDC 33.339

T. I. Iuiukina
Applicant of the International Economy and International Economic Relations Department
Saint-Petersburg State University of Economics
uu2003@mail.ru

RUSSIAN'S AREAS OF ADVANCED SOCIAL AND ECONOMIC DEVELOPMENT INVESTMENT ASPECTS: POSSIBILITIES FOR APPLICATION OF CHINA'S EXPERIENCE

Abstract: The actual problem of attraction foreign investments on forming zones with preferential investment regimes in Russia is investigated in the article, exactly – areas of advanced social and economic development (ASED) on the Far East. The evolution of formation and functioning China's economic-technological development areas (ETDA) have been analyzed. The possibilities for the application of given experience in relation to ASED are discovered from conceptual and practical point of view. The author is generated the comprehensive set of recommendations, which realization contributes for the improvement of investment processes on the ASED' platform in terms of sanction restrictions and expansion of balanced economic cooperation between Russia and China.
Key words: Areas of advanced social and economic development, economic-technological development areas, China's experience, wave diffusion of investment, economic network system.

Introduction

The research is concentrated on the problem of formation Russian's areas of advanced social and economic development on the Far East as system of measures to attract foreign investment into the Russian economy for dynamic and systematical promotion of Russian's exporters on the capacious markets of the Asia-Pacific region with the possibility to consolidate the country's position in these aspects. Actuality of present research is substantiated by the necessity of the planning national development strategies to attach the special status for areas with preferential investment regime. The given statement has been confirmed by the existing criticism of special economic zones since 2005 year.

Scientific interest for author are also represented the China's economic-technological development areas [1] within the framework of investigated issue. This is obtained on the basis of detection the following four key proposals-determinants:

- stages of formation, development and growth of the initial economic-technological development areas have been coincided with the period of sanction's course primarily from Western Europe and United States from 1989 to 1993 years;
- the intensive competition with other preferential economic zones of China, absence state large-scale financing and providing wide-ranging preferential policies compared to them;
- the development of ETDA in terms of Asian financial crisis and it's conjuncture;
- the formation on the basis of defined ETDA economic «points of growth» by 2001 year in the cities of their dislocation and then the «points of growth» of China.

To ensure the areas of advanced social and economic development on the Russian Far East by the content, which will contribute to overcoming the similar sanction's barriers with subsequent possibility of integration into national economy and penetration on the Asia-Pacific region's markets, requires revision of the experience for initial Chinese economic-technological development areas.

Intensification of the economic cooperation between Russia and China at the present phase also substantiates the investigated problem statement and its actuality.

Hypothesis

The scientific hypothesis of author's research is the suggestion about possibility for application of China's economic-technological development areas experience in relation to

Russian's areas of advanced and economic development on the Far East in order to improve their concept and investment process on their platform.

Methods

The following scientific methods were used for the current research: observation, economic and statistical analysis, abstraction and analogy, system analysis and synthesis; comparative, structural-logical, historical, dialectical method of scientific knowledge.

Theoretical and methodological basis of the research consists of main concepts of international capital's movement subject to territorial production's arrangement, various system researches and monographs about this analyzed specificity of scientific issue.

The designated problem is multifactor issue due to the formation of investment processes under the influence of both endogenous and exogenous factors. Subject to this position, the concepts of international capital's movement are explored by author to trace the evolution of this category based on the following main phases: neo-classical school of Economics (Alfred Marshall, John Stuart Mill, John Atkinson Hobson, John Elliot Cairnes, Eli Filip Heckscher, Bertil Gotthard Ohlin, Paul Anthony Samuelson, Ragnar Nurkse, Carl Iversen); the neo-Keynesian approach – the economic growth's theory (Alvin Harvey Hansen, Roy Forbes Harrod, Evsey Domar, Fritz Machlup, John Richard Hicks, Paul Anthony Samuelson); Marxist theory (Karl Marx); theory of regional growth (Francois Perroux, Torsten Hagerstrand, John Friedman, Immanuel Wallerstein); theory of the technology gap (Michael Posner); «enclave» approach (Warner Max Corden, Peter Warr); theory of competitive advantages (John Dunning, Rajneesh Narula, Michael Porter); applied approach to the research of investment process (Pi Tsyanyshen and Van Kay).

Performed analysis allows to identify determinants of economic type, which are substantiating the international capital's movement through the using three-tier approach due to formation of the following groups for economic factors: macroeconomic, mesoeconomic and microeconomic.

In that way methodological base of research consists of the following determinants: differential rent I; advantages of localization and internalization; «growth poles»; advantages of property; differential rent II; the ratio of land plots' square and investments. Approbation of these components is based on operational experience of Chinese economic-technological development areas allows to identify the main recommendations for Russian areas of advanced social and economic development in order to for contribution of the improvement their concept, structural elements and investment processes.

Thus, the author's approach is formed to consideration the objects of research taking into account the certain economic factors.

Substantiation of hypothesis

The possibilities for the application of China's economic-technological development areas experience and its objectivity in relation to Russian's areas of advanced social and economic development on the Far East are substantiated by author's identification the following key proposals-determinants:

1. Effective models of the economic system are characterized by the similar traits. Inefficient systems turn out to be such for completely different reasons for its part. Successful implementation of the best practice is based on simultaneous combination of the special factors while for the economic loss it is enough to make a single mistake.

This thesis is a *general provision*, which is substantiating the possibility of mentioned application.

2. *The similar location position* – economic-technological development areas are located along the coast of Eastern China (from the north to the south); areas of advanced social and economic development are concentrating in the Eastern part of Russia, including Sakhalin Island, Kuril Islands and Kamchatka Peninsula; the location is characterized by the port's component – port-cities of ETDA' dislocations are provided the output to Yellow Sea, East China Sea and South China Sea; in relation to Far East's ASED – through Vladivostok, Vanino, Vostochny, Zarubino,

Korsakov, Nakhodka, Petropavlovsk-Kamchatsky, Posyet and Pevek ports, the access is provided to Japan Sea, Okhotsk Sea, Bering Sea and Northern Sea Route.

3. *The similar target orientation* – relative to ETDA this provision is implemented into internal districts of China to carry out the second stage of country's openness; the ASED' status except to the Far Eastern Federal District applies to the number of monoprofile municipalities, it is also discussed the possibility of creating preferential economic zones of this type in other Russian's old industrial regions and in Arctic zone in order to achieve the wave diffusion of investment like as ETDA.

4. *The similar sanction conditions* – the ETDA' formation and development were carried out in the sanctions conditions towards China by USA, European countries and Japan covered the period of 1989-1993 years; ASED' formation takes place in the sanction conditions, which have been organized by USA, European countries, towards Russia since 2014 year to the nowadays.

5. *The similar risks at the formation's stage* – risk of land's development with high cost, risk of inefficiency and debts, risk of allocated land's idle, risk in relation to the cost of land's transfer.

6. *The similar investment model* – ASED is implemented with a focus on large projects and individual investor similarly ETDA in the period of their accelerated extensive and intensive economic growth.

Results and discussion

I. Given the author's evaluation of the conditions and operation's results for areas of advanced social and economic development and free port of Vladivostok (FPV):

1. Cluster approach is lost for creating ASED

Initially, the idea of «anchor» project was planned, around which could be formed the full chain of related industries. In practice of the ASED' residents represent the set of companies, which are implementing their project with using provided state benefits. Types of economic activities of ordinary companies-residents are not linked to each other at most. In this regard the concept of ASED' «kernel» has been blurring.

2. Logistical component

Areas of advanced social and economic development are competitive on the integral tax burden compared with the similar preferential economic zones of the Asia-Pacific region. Nevertheless, budget preferences are partially nullify by logistical component, which take out over half of the benefits. Transport infrastructure and border crossings especially have affected those companies, which are going to export their products.

3. Conflict of interests

For practical implementation of investment projects and promotion of issues regarding ASED / FPV have been formed with a large number of federal and regional support authorities, between which there is often a conflict of interests.

3.1. The difficulties with the land's alienation

Simplified land's norm is providing without bidding is valid for FPV' residents. However, there is not of coordination with large federal structures and also oblasts' administration in the practice, which periodically are refusing to provide land for projects' implementation.

4. The difficulties in applying the regime of free customs zone

The difficulties in applying designated regime are marked because of expensive process its facilities construction. This circumstance is contributes to the rejection of preference by FPV' residents, which have resorted to customs clearance in accordance with the general rules.

5. Clearly defined financial sources are lack

It is assumed the most of projects' financial sources are extra-budgetary, public investments are additional. Activation of private investment causes the public-private partnership's creation. Because of lack the clearly defined financial sources, the projects' vast majority have experienced the economic slowdown at initial stages, which are related to infrastructure's design and construction. Financial projects' side needs to be clarified.

6. Contradiction with the antimonopoly legislation

Residents with the long-term project payback (7-10 years) are striving to the long-term contracts for the sale of products. Large business with the state participation in Far Eastern Federal District is ready to conclude agreements with these residents for the payback's period of their project subject to guaranteed sales. At this moment, it is contradiction with the antimonopoly legislation in certain degree. In this connection it is necessary to refine the regulatory framework in respect of the issue.

7. The investment model is limited

Minimum threshold for investing in projects on the basis of ASED is not less then 500 thousand rubles and 5 million rubles for FPV [2]. Therefore, their development is not designed for small and medium-sized enterprises' (SME) subjects or startups, which are capable to develop into large-scale investment business projects. In order to correct the situation, it is required the zero «entry threshold» for investors and the relevant laws need to be amended.

II. The main factors, which contributing to formation competitive advantages of China's economic-technological development areas, are revealed:

1. Location-specific advantages are initially involved in ETDA due to their location in the coastal cities.

2. Ownership-specific advantages' reduction is compensated by the debt development method of lands. This method affects to the each development zones' base square. The property in the form of land becomes the main ETDA' capital at the stage of lands' development.

3. Internalization advantages – the challenge of attracting foreign investment by ETDA was implemented during the second development's stage by shifting the vector of foreign investments from special economic zones to economic-technological development areas.

4. Appearance of projects – «growth poles» in the period of 1992-1996 years, which filled the existing gaps in certain China's spheres, reducing the lag with the world level.

5. The movement of processed product is in two directions: from ETDA to the economy of the investor country and from ETDA to the domestic economy of the recipient country. This feature significantly distinguishes economic-technological development areas from export processing zones (EPZ), processed product of which movements only in one direction (from EPZ to the economy of the investor).

According to author's opinion, mentioned factors are stimulated the achievement on their basis extensive and intensive economic growth in China's economic-technological development areas.

III. As a common result of conducted research special recommendations may be generated by regarding the application of successful China's economic-technological development areas experience in relation to set of objects in areas of advanced social and economic development on the Russian Far East:

1. The expansion of ownership-specific advantages by the involvement state-owned industrial enterprises.
2. Selection the land plots taking into account costs of their alienation, construction of infrastructure and latent risks.
3. Reliance on surrounding ASED districts with implementation of appropriations in their favor.
4. Adherence of the principle «cost-income».
5. Decline in managing company's capital structure debt obligations.
6. Formation of an agreement about implementation of activities for a certain period of time with the payment of penalty in case of default due to early termination of the agreement.
7. To follow the general model of land development based on the external and internal forces of influence, which was adopted in ETDA.
8. Allocation of the budget funds for the ASED' formation and future development may be in a one-time order.
9. Preventing the managing company from conducting economic activities with the negative balance sheet in order to preserve the national interests.

10. The functioning of ASED may be based on the model of major capital turnover with the aim to provide the coverage allocated capital investments independently.
11. The realization of the preferential regime by withholding taxes in ASED.
12. The allocation of the common territory's boundaries of each ASED on the basis of the initial square and their observance.
13. The possible transformation of the action model in relation to the practical implementation of the land's development in case of impossibility of acceptance the main risks by ASED.
14. The development on the basis of ASED the new industries for the Far Eastern region, which can serve as the example for the system of Russian enterprises in a similar sphere.
15. Expand the ASED' internalization advantages due to the following proposals:
    a) the involvement in investment projects large enterprises of the Far Eastern region with the multiyear experience of the relevant production;
    b) the application of foreign technologies in the process of project's implementation by using own auxiliary equipment;
    c) the providing the ASED by own qualified staff.
16. The ensuring the spiral character of ASED' industrial cost price with regard to it's growth.
17. The formation of transition period in expiry of the preferential taxation.
18. The ensuring the strategic transition from land plots dispose to capital dispose through the accumulation of productive capital and its consolidation with financial capital at the ASED' stage of development.
19. The orientation of the ASED' projects may be not just for large enterprises but also for SME and startups.
20. The possible expansion of capital sources should be due to the exit of ASED' outside of the isolated territory.
21. The ensuring the complementarity for areas of advanced social and economic development.

Proposals' realization promotes to release the accumulated investment potential on the basis of ASED and improving the quality of foreign investment, providing a stimulating effect on the economy of Far East region. The implementation on the platform of ASED and FPV the nominated proposals contributes the formation of conditions for levelling general and efferent tendency in relation of national investment climate, hereupon may have the possibility of achieving the wave diffusion of investment.

The application of mentioned recommendations contributes to the Far East's areas of advanced social and economic development increasingly to integrate into the national economy and global markets.

Reference to the experience of China's economic-technological development areas, which are integrated into domestic economy, appears in this scientific issue constructive and reasonable from the position of the multipurpose approach.

The development of Russian-Chinese investment cooperation based on the dedicated mechanism allows ASED and ETDA to organize into a single complementary economic network system with the high level of communications in the conditions of transformation of the international economy.

References:

1. Газуль С.М., Ананченко И.В., Кияев В.И. Проектирование прототипа клиентского устройства для гибридной информационной системы поддержки образовательного процесса в вузе //Современные проблемы науки и образования. — 2015. — № 1; URL: www.science-education.ru/125-20219 (дата обращения: 16.08.2015).
2. Терехина Е.С. Development of Russian-Chinese interfirm cooperation in different industries (Развитие российско-китайской межфирменной кооперации в различных отраслях) // VI форум ведущих экономистов России и Китая. Конференция молодых ученых России и Китая «На одном языке». 22–25 мая 2014 года: сборник материалов / под науч. ред. И.А. Максимцева, Чень Юйлу. – СПб: Изд-во СПбГЭУ, 2014. – 100 с. – С.43-48.

3. Степанова Е.С. Современные возможности развития российских информационно-коммуникационных компаний на мировом рынке // В сборнике: Ученые экономисты Санкт-Петербурга - Петербургскому международному экономическому форуму. — СПб: Изд-во СПБГЭУ, — 2017. — С. 85-93
4. 中国开发区协会. URL: http://www.cadz.org.cn/kaifa/economy.php
5. Far East Development Corporation. URL: https://erdc.ru/

ARTICLE LAYOUT AND SUBMISSION GUIDELINES

The materials (articles and author information) should be sent via e-mail: journal.hypothesis@gmail.com

The file containing the article should be named as per the template "authors' last names_article", for instance: Ivanov_Slezinski_article.docx

Information about the author(s) should be sent in a separate file, which should be called "authors' last names_information", for example Ivanov_Slezinski_information.docx. It should include:

• full name in Russian and English;

• science degree, academic rank (if available);

• position and place of work / study.

The following article structure is recommended:
• **introduction** – relevance of the research, analysis of literature on the subject, determination of "blank spots" in other authors' research on the subject;
• **hypothesis** – idea being tested in the research;
• **methods** (research methodology) – information on when, where and how research was conducted, what materials have been used and who was included in the sample;
• **results and discussion** – information on the solution found, on whether the hypothesis has been confirmed, the meaning and relevance of the solution, how the information received fits in with the results of other researchers and what prospects for further research exist;
• **credits** – information on donor organizations, research groups, institute the research was based at, personal acknowledgements to colleagues, reviewers, etc.;
• **references** – only sources referenced within the article's text should be listed.
Section titles should be highlighted in **bold**.

TECHNICAL REQUIREMENTS FOR ARTICLES

1. The UDC code should be specified.

2. The title of the article should be provided in Russian and English, font Times New Roman, 14pt, bold, UPPERCASE.

3. Abstract for the article should be provided in Russian and English. The volume of the abstract is 400-500 characters, font Times New Roman, 10pt.

4. Keywords reflecting the article's main ideas (5-8 words and phrases in Russian and English), in Times New Roman, 10pt.

5. The Editorial Board accepts articles in *.doc and *.docx formats. In case the article has been produced in a text editor other than MS Word, authors should ensure full compatibility of all materials submitted with MS Word 2013, as well as complete compliance with the present guidelines.

6. The volume of the article should not exceed 10 pages.

7. Page format A4, portrait orientation. Margins: top 2 cm, bottom 2 cm, left 3.5 cm, right 1.5 cm. Line spacing – 1.0. Automatic hyphenation should be disabled.

8. The text of the article should be in English or other supported languages, paragraph indentation 0.7 cm, aligned by width. Font size 12pt, Times New Roman, font style regular.

9. The text may contain figures and tables. They should be placed immediately after their mention or on the next page. Formulas within the article text are optional.

10. All figures should be black-and-white. Their resolution should be 300 dpi or higher. All figures should be numbered, except if the article contains a single figure. Figures within the article text should have captions at the

bottom, no indentation, justified. Font size 10pt, Times New Roman, font style regular. Caption: "Figure X. Figure name" (where X is the figure number), no full point at the end. An empty line should be skipped after the caption as well as before the figure.

11. All tables should be presented in the form (format) allowing their editing in the process of journal publication preparation. All tables should be numbered, except if the article contains a single table. The required table font size is 10pt, Times New Roman, font style regular. Captions should be placed above the tables, no indentation, justified. Font size 10pt, Times New Roman, font style regular. Caption: "Table X. Table name" (where X is the table number), no full point at the end. Each table should be separated from the text by an empty line above and below it.

12. Formulas should be made using the text editor's built-in formula design tools.

13. The article should not have appendices.

14. The text of the article should contain references for all sources provided in the References section. References within the text are made in square brackets, with the number indicating the source's position in the References section inside them. For instance: [7]. In case the specific page (or page range) is being referenced, this should also be indicated. For instance: [5, p. 7] or [4, pp. 1-2]. If several items are being referenced simultaneously, they should all be listed in a single square bracket set in ascending order as per the References section, separated by semicolons. For instance: [7, p. 111; 8; 10, pp. 3-5; 11] (wrong: ~~[3], [5]~~). If a reference is located at the end of a sentence, the punctuation mark ending the sentence is placed after the closing square bracket (correct: "... of a number of authors [7; 8].» incorrect.«~~:.. of a number of authors. [7; 8]~~").

15. References should be listed at the end of the article in Times New Roman, 10pt, justified. This requirement is obligatory. The references are made according to GOST 7.0.5-2008. Only endnote references are allowed within the articles. Sources should be listed alphabetically (with sources in Russian or Local language going first, in foreign languages second)

You can find out more information on article submission and publishing procedures on the journal's web site http://hypothesis-journal.ru/podat-statiu or by contacting the editorial office via phone or email journal.hypothesis@gmail.com.

Подписано в печать 28.12.2018. Формат 60×84 1/8.
Усл. печ. л. 16,51. Тираж 1000 экз. Заказ 1993.

Издательство СПбГЭУ. 191023, Санкт-Петербург, Садовая ул., д. 21.

Отпечатано на полиграфической базе СПбГЭУ