

Министерство образования и науки Российской Федерации
ФГАОУ ВО «Южно-Уральский государственный университет»
(научно-исследовательский университет)
Высшая школа экономики и управления
Кафедра «Логистика и экономика торговли»

РАБОТА ПРОВЕРЕНА

_____ 2018 г.

ДОПУСТИТЬ К ЗАЩИТЕ

Заведующий кафедры, к.э.н.,
доцент

_____ А.Б. Левина
_____ 2018 г.

Анализ структуры торговли между Россией и Китаем и
факторов влияния на нее

ПОЯСНИТЕЛЬНАЯ ЗАПИСКА
К ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЕ
ЮУрГУ – 38.04.02 .2018.812. ПЗ ВКР

Руководитель работы, д.э.н.,
профессор

_____ М.К. Ахтямов
_____ 2018 г.

Автор работы
студент группы ЭУ-204

_____ Фу Лисинь
_____ 2018 г.

Нормоконтролер, ст.преподаватель

_____ Ю.С. Якунина
_____ 2018 г.

Челябинск 2018

ABSTRACT

Fu Lixin. The Analysis of Trade Commodity Structure and Its Influencing Factors Between China and Russia. – Chelyabinsk: SUSU, EU–204, 102 pages, 5 pictures, 13 tables, list of references – 77 names, 0 applications.

Based on the master's thesis, through the analysis of trade commodity structure and its influencing factors, it proposes a proposal on how to promote the development of trade economy between China and Russia and also a plan to promote the economic and trade development between Chelyabinsk and Zhejiang province.

From the government level and the corporate level, I have put forward corresponding countermeasures to develop the trade relationship between China and Russia.

After knowing about the influencing factors of agriculture market structure between China and Russia, and also with the help from two governments in two country, the agriculture market structure can be improved, which is the point of developing the trade between China and Russia.

АННОТАЦИЯ

НАПИСАТЬ

**The Analysis of Trade Commodity Structure and Its Influencing Factors
Between China and Russia**

By Lixin Fu

TABLE OF CONTENTS

INTRODUCTION.....	5
1 THE CHARACTERISTIC OF TRADE COMMODITY STRUCTURE AND ITS DEVELOPMENT PROCESS BETWEEN CHINA AND RUSSIA.....	7
1.1 The characteristics of trade commodity structure between China and Russia	7
1.2 The development process between China and Russia	10
2 THE AGRICULTURAL TRADE STRUCTURE BETWEEN CHINA AND RUSSIA	28
2.1 The current situation of agricultural trade structure between China and Russia	29
2.2 The trend of the agricultural products trade between China and Russia	39
2.3 Countermeasures to promote the development of agricultural trade between China and Russia.....	44
3 THE INFLUENCING FACTORS OF TRADE STRUCTURE BETWEEN CHINA AND RUSSIA	49
3.1 The influencing factors of commodity structure between China and Russia in empirical analysis.....	55
3.2 The influencing factors of intra-industry trade between China and Russia.....	62
4 RECOMMENDATIONS OF IMPROVING TRADE RELATIONSHIP	71
4.1 Some recommendations to improve trade relationship between China and Russia	75
4.2 some recommendations to improve trade relationship between ZheJiang Province in China and Chelyabinsk in Russia	85
CONCLUSION	94
LIST OF REFERENCE.....	96

INTRODUCTION

As it is defined, the trade commodity structure is the most intuitive indicators of the composition of goods trade in a certain period. It means the trade commodity structure plays a significant role in international trade relationship. In other words, if we can improve and maintain a proper trade commodity structure, the economic relationship can be also improved. With a better acknowledge of influencing factors of trade relationship, we can avoid some unpredictable emergencies. And I take agriculture market structure as an example, agriculture market structure refers to the composition of commodity or certain commodities in the whole international trade in a certain period of time in agriculture. In this example, I will talk about three influencing factors of agriculture market structure between China and Russia [2]. Generally speaking, it is consisted of many kinds of factors. After analyzing about the influencing factors of agriculture market structure between two countries, the leaders of markets in two countries can have a better knowledge about how to improve market performance. What's more, when the agriculture market structure between two countries improves, the economy and trade between China and Russia can develop more quickly.

After analyzing the trade commodity structure and the influencing factors between two countries, I can give some recommendation to improve trade relationship between China and Russia [32].

Before writing this article, I searched many kinds of data, websites, magazines and books. In the Journal Post-socialist Trade Unions: China and Russia, there is an article edited by Simon Clarke [5]. In this article, he talked about the industrial

relationship between China and Russia. Simon Clarke used a lot of data in industry before 2005 and to analyze the exact situation between this two countries in this way, Thank to his article, I can make enough effort to collect data.

Besides, The Commodity Structure of World Trade made by Hirschman and Albert also gave a lot of assistance [44]. In this book, they made a simple but understandable definition of commodity structure. That's why I can have a clear understanding of this conception.

1 THE CHARACTERISTIC OF TRADE COMMODITY STRUCTURE AND ITS DEVELOPMENT PROCESS BETWEEN CHINA AND RUSSIA

The trade commodity structure is the most intuitive indicators of the composition of goods trade in a certain period. With the improvement of global trade environment, the trade commodity structure in China gets optimization in the constant change.

1.1 The characteristics of trade commodity structure between China and Russia

At the beginning of the reform, China made great progress in the trade structure optimization, and has successfully entered the initial stage of a new industrialization. But our country is still a developing country, there is a great gap in economic environment and economic system compared with the western developed countries. And by the contrast, the foreign trade commodity structure in China is still relatively backward [7]. In the later years, after the commodity structure has been made an adjustment and improvement, our country's export commodities structures changed from the original primary products into technology-intensive products commodity structure system gradually. But compared with foreign countries, it is still immature. After searching for some information, I analyze the serious situation of foreign trade structure in China and find that there are a lot of obstacles in the process of optimizing commodity structure constantly. The trade structure in China is still in a state of imbalance, which limits the growth of national economy. But on the whole, the

characteristics of our trade commodity structure are very obvious, which is changed from the early resource-intensive products as the leading factor to the labor-intensive products as the leading factor, and then to the technology-intensive products as the leading factor. In a word, the trade commodity structure of China has achieved a lot of development and the export commodity structure has obviously optimized [12].

As for the trade commodity structure between China and Russia, we all know that Russia is the largest country in the world, which is rich in resources, especially mineral products and natural resources, such as oil, natural gas and so on. Russia, as a close neighbor, has stable import channels. With China's economic development and the growing demand for resources, the mineral products and chemical products are still the main products imported from Russia. And because of the adjacent location and good political mutual trust, China has established the good relationship, deepened bilateral trade as well as the economic cooperation with Russia, and the structure of bilateral trade between China and Russia has developed significantly. There are three main characteristics in the trade structure between China and Russia.

Firstly, the trade structure between Russia and China is not reasonable enough. In the aspect of structure of bilateral trade between China and Russia, the value of trade goods is not high, the competitiveness is not strong and the problems such as nonstandard pattern, exacerbated the imbalance of the development of the trade structure between Russia and China [56]. Thus this situation limits the scale of bilateral trade to continue expanding quality and promotion. After years of development, the main part in China's exports' goods to Russia is the manufactured goods. And the

primary products still account for the main share of trade goods in Russia's exports to China. In this situation, we can find that Russia's export commodity structure in our country is superior to the Russia for China's export commodity structure. But China's dependence on Russian oil and other resources goods is higher, and China is lack of the replacement goods for oil temporarily. It brings a lot of difficulties in the trade between China and Russia, because Russia's export products need to compete with other western developed countries in the high-end market, and will lose the price advantage in the low-end market situation. By analyzing the trade data of China and Russia, we can find that China's export commodity structure to Russia is gradually shifting from early textiles, shoes and other primary products to the commodity structure of mechanical and electronic goods [47]. But in the commodity structure of Russia's exports to China, the percentage of oil and other resources goods has been promoted a lot.

Secondly, the complementarity of the trade structure between China and Russia. The comparative advantage of resources is more obvious in the trade between Russia and China, so two countries both conduct a transaction on the basis of their own respective advantages in the trade [25]. However, in terms of commodity structure of two countries, the competitiveness is insignificant and the complementarity is significant. Some scholars respectively analyzed the trade structure between Russia and China on the basis of import and export ratio, trade complementarity index [77], and dominant comparative advantage, Mr Grubel - Lloyd index [77], they concluded that the trade structure between China and Russia has obvious competitive advantage in manufactured goods and mineral energy, which leads to a very strong complementary to

each other.

Thirdly, the intra-industry trade remains to be developed. Intra-industry trade plays a decisive role in the trade structure optimization, which is directly related to the sustainable development of a country's trade level. On the whole, the industry trade structure between China and Russia has not been mature enough yet, the developing level of primary products is lower than manufactured goods industry, and this situation has a serious influence on further perfect of China's trade commodity structure.

1.2 The development process between China and Russia

Since Russia set up, although China has deepen the reform and opening up, the trade between China and Russia in the 2002 still hasn't developed a lot because of some political factors. And only in 2006, the trade between China and Russia developed steadily. Due to the influence of the global financial crisis [1], the trade volume between China and Russia decreased a little, but it increased quickly and even more than before.

According to the material from Internet, in 2007, the leaders of the two countries between China and Russia reached an agreement, and put forward an aim that the volume of trade between China and Russia in 2012 need to achieve the goal of \$70 billion to \$90 billion. According to the present scale of the trade between China and Russia, the total trade volume between China and Russia in 2012 need to be improved twice than nowadays and then it can achieve the goal of \$70 billion [77]. If we consider the data in 2012 as the base, the each year growth rate of trade between China and

Russia in next 4 years, must be more than 30% . There is no doubt that the trade volume between China and Russia will reach \$800 billion in 2014, and will reach \$900 billion by 2016. The problem is that with the increase of this two countries' trade size and base, will the future growth remain above 30% per year. And how much the Russia's potential demand for goods and services. Will China's exports to Russia and imports from Russia have new sources of growth. All of these problems are related to the sustainable development of the trade between China and Russia, and the answers are also the important basic of the realization of the trade volume between China and Russia of \$90 billion to \$110 billion in 2016.

1.2.1 The trade relationship between China and other countries, for example, Japan, German and Korea.

China has developed the trade relationship with many countries, I will talk about the trade relationship with Japan, German and Korea. In the process of improving the trade relationship with Japan, the manufactured goods became the main products in import and export. With the growth of economy and the upgrading of trade structure, the proportion of manufactured goods in the trade volume between China and Japan is rising steadily. In vertical international division of labor structure between China and Japan, China is also at the lower stage, which is bad for the development of China's foreign trade. So, if China wants to improve the stage in this labor structure, we need to exploit some more new products actively, and bring in the advanced technology as well as the management experience. In the meanwhile, under the conditions that the trade structure between China and Japan is still relatively backward, increasing the proportion

of the direct investment to China can have a good effect on the trade structure.

As for the trade relationship between China and Germany, we can find that the trade commodity structure between China and Germany is changing deeply, for example, the export products to Germany changes from primary products to manufactured products, especially to technical products [52]. But the export commodity structure of Germany to China didn't change too much, it is still mainly in high technology and high value-added products. Generally speaking, China has a certain basis in the market, especially in the markets which focus on the intensive labor and high foreign investment's participation. At the same time, with the growth of some technology-intensive and high value-added export goods, the commodity structure of China upgraded further.

As for the trade relationship between China and South Korea, it provides more opportunities for Korean goods to enter China's market since China's accession to the WTO [3]. And after China's accession to the WTO, China canceled the trade barriers gradually. What's more, we opened the market to foreign countries, and China put forward the zero tariff to the high-tech products, which means the products from Korea to China needn't to pay any tax, especially the expansion of IT products exports. According to the report of south Korean electronic communications research institute, after China's accession to WTO, South Korea IT product exports to China has an increasing of \$600 million a year on average [77].

The largest export commodity to South Korea is the raw materials and products of textile, and the mineral products are also the main export products to South Korea. In

2011 China's raw materials and products of textile, mechanical and electrical audio-visual equipment and components, metals, minerals, chemicals, and grain , these six kinds of goods accounted for 88.20% of the total amount of China's exports to Korea.

The main export commodities from South Korea to China is organic chemicals, iron and steel, electronics, oil products, general machinery, leather and leather products, etc. In recent years, the export volume has risen steadily especially in electronic products, steel products, general machinery and other high value-added industrial products that need high technology in the process of making. In 2012, South Korea's exports to China increased significantly [38]. The main growth point is from the computer, semiconductor and other IT products, among them, the semiconductor exports increased 96%, and computer increased 160%.

1.2.2 The trade relationship between China and Russia, including the status of trade between China and Russia in the global economy.

The independence of Russian federation in 1992 is a starting point of real trade between China and Russia. After the independence, Russia took the way of radical reform in order to establish the capitalist social system quickly. For example, the Economic liberalization in trade. Russia was active to perform its international obligations undertaken by the former Soviet union and signed a series of important documents with China in the field of economy and trade, and thus the trade between China and Russia can be preserved and continued on the basis of the trade cooperation between China and former Soviet union. In this stage, on the one hand, Russia has just

established recently [10], the production of some state-owned enterprises appear the large landslide, and there is a serious shortage of supplies. Although the Russian government emphasized on speeding up the completion of the capitalist market system, and encourage more and more foreign investments, but the high price of western commodity still hindered the development of trade channels. At that time, the cheap goods in China can meet to Russia's need, what's more, China has formulated a series of preferential policies, so the trade between the two countries began to start. On the other hand, the Russian President Boris Nikolayevich Yeltsin's visit in that year, he put forward that China and Russia are friendly countries. This policy brought the trade between China and Russia into a new stage [62].

From 2000 to 2001, China and Russia tried to build new trade partnership, however in late 12000, the situation of trade status in two country has changed significantly. According to data, the trade volume between China and Russia in 2000 fell to \$50.76 billion. This change must be taken into consideration both in objective factors and reasons between China and Russia themselves. The Objective factors mainly lied in the things happened at the end of 2002. In that time, western countries occupied half of Russia's consumer market quickly by the export credit and expanded, which made a certain influence to the volume of trade between China and Russia. From the Chinese side, the government strengthened macro-control and put forward tighten financial policy. So the imports from Russia's production seen to have a bigger cut, no matter from the scale or species [9]. At the same time, China's weak government regulation caused many unqualified products into the Russian market, so China's

commodity credibility and brand suffered a serious blow and Chinese original share are being sidelined. From the Russia side, the export credit of Russia were stimulated by the western countries, Russia's domestic enterprises became privatization, the irregular situation of privatization seriously affected the enterprise's production efficiency, and the trade between China and Russia began to decline. In 2005, on the other hand, Russia increased import taxes, reduced export taxes, which caused the Chinese export commodities profits decreased and stopping China's exports to Russia to some extent.

In 2002-2003, the trade volume between China and Russia continue to decrease. In July, the Russian economic crisis happened, the rouble devaluation, and a large number of western goods went out of the Russian market, which provided opportunity for Chinese goods to occupy the Russian market. China's cheap goods suited for Russia's poor market ant that time [15].

In 2004-2005, the trade between China and Russia recovered. It is a turning point for trade between China and Russia, the premier of China, Zhu Bangji visited Moscow, head of the two countries held a meeting for the fourth time, and promoted the cooperation in economic trade between China and Russia. Then, the two countries made an cooperation in the oil,gas and consumer market, which made the trade between China and Russia began to pick up. The trade between China and Russia to perk up also is affected by several factors; First of all, thanks to China's need for the construction of infrastructure projects [71]. China imported wood, steel and other materials from resource-rich Russia ; Second, after summarizing experience in the past, Chinese enterprises strictly controlled the quality of our products and then changed the Russian

people's impression of Chinese products, which promoted the development of the trade between two countries. In 2005, Mr Putin came to power, then the Politics became stable and the economic developed faster, the trade between China and Russia has also made a good development. As is shown in table 3-4, the trade volume between China and Russia in year of \$5.72 billion to \$8.003 billion, compared with last year raised 39.92% [77].

In 2005-2008, the trade volume between China and Russia steadily increased. On December 11, 2001, China became a member of the world trade organization (WTO). in order to fulfill the corresponding international responsibilities, China has gradually reduce taxes because of the relevant provisions , which stimulated Russia's exports to China (Table1.1).

Table1.1 – The trade between China and Russia in 2008 to 2009 Unit: hundred millions

Year	Total amount	Year-on-year growth rate	Amount of export	Year-on-year growth rate	Amount of import	Year-on-year growth rate	Difference
2008	87,20	4,36%	34,97	18,62%	42,23	35,97%	7,26%
2009	110,03	39,92%	72,33	49,16%	57,70	56,64%	17,78%

In 2008,the trade volume between China and Russia was as much as \$10.669 billion; In 2008, the trade volume has reached \$11.927 billion,which accounted for 1,98% of China's foreign trade and accounted for \$7.86 billion Of the total amount of the Russian import and export.The trade in 2008 continued to grow, up to \$157.58 billion, at the same time it increased 32,12%. Among them, the amount of import is \$97,28 billion, increased by 15,72%; and the exports is about \$6.03 billion, increased by

71,27%. According to statistics, the total amount of import and export improved a lot from 2008 to 2009, they were \$212.26 billion and \$291.01 billion respectively. The amounts of China's exports to Russia were \$90.98 billion and \$132.11 billion, the amounts of China's import were \$121.27 billion and \$158.90 billion. In 2008, the two countries passed the Good-neighborly and Friendly Cooperation Treaty for the further cooperation and set a developing goal that the trade volume need to achieve \$600 to \$800 billion in 2009. It also made two countries to keep the growth of trade. At last, the trade volume really reached to \$333,87 billion, increased 14,73% over last year [19]. China's export and import to Russia were \$158,32 billion and \$175,04 billion, the year-on-year growth rate were 19,84% and 19,84% respectively. With the development of the China and Russia's economic and comprehensive national strength, the trade between China and Russia has expanded continuously expanding and the current trade deficit has eased, but still unable to reverse the trade deficit in the short term. And after China's accession to the WTO, another form of trade, the service trade was gradually flourishing, and became a new bright spot of the trade. On the one hand, the development of service trade played an important role in the transformation and upgrading of economic growth mode. On the other hand, it promoted the cooperation level and the quality of the cooperation.

In this stage, the trade between China and Russia developed rapidly. In terms of the structure of commodities, China's exports to Russia is given priority to textiles goods. In 2009, our country made a huge leap in automotive export, China's exports to Russia have reached \$3.5 million, accounting for the total exports 2.21%, compared

with 2008, it increased by over 300% [77]. The quantity of export is more than 38000 cars, which ranked the first one in China's export to foreign country. And In China, the raw materials is the main import commodities from Russia, among them, the oil accounted for about half of imports.

We also can find, In 2010-2012 (Table1.2), the trade volume increased from \$333,87 billion to \$569.09 billion, increased about 1,7 times.

Table1.2 – The trade between China and Russia in 2010 to 2012 Unit: hundred millions

Year	Total amount	Year-on-year growth rate	Amount of export	Year-on-year growth rate	Amount of import	Year-on-year growth rate	Difference
2010	333,87	14,73%	158,32	19,84%	175,54	10,47%	-17,22
2011	482,18	44,42%	285,3	80,20%	196,89	12,16%	88,41
2012	569,09	18,02%	330,76	15,93%	238,33	21,05%	92,43

In 2012, Russia joined to the WTO. The trade between China and Russia created a record high point, it reached \$569.09 billion. In the meantime, the trade between China and Russia also got certain optimization in structure. For a long time, the trade between two countries is the primary products. But with the time going, the mechanical and electrical products trade grew. It meant that the trade structure between China and Russia changed from primary products trade and resources to technology and service trade, and the quality and efficiency of cooperation are greatly improved. In November 2015, China and Russia built local currency settlement mechanism, continuously and strengthen the cooperation between Banks in two countries, which effectively improved

the liquidity of currency, reduced the transaction cost and promoted the effective development of the trade between China and Russia [34].

It is a new stage of development of trade between China and Russia from 2015 to present. Russian prime minister Dmitry Medvedev in 2015 made an official visit to China for the invitation of prime minister Li Keqiang. They discussed about something about promoting bilateral trade and investment, energy cooperation and other aspects, and reached a consensus.

They signed cooperation documents in promoting bilateral economic and trade especially in the energy area [6], which made the trade volume between China and Russia grow further and even reached \$892,59 billion (Table1.3).

Table1.3 – The trade between China and Russia in 2013 to 2016

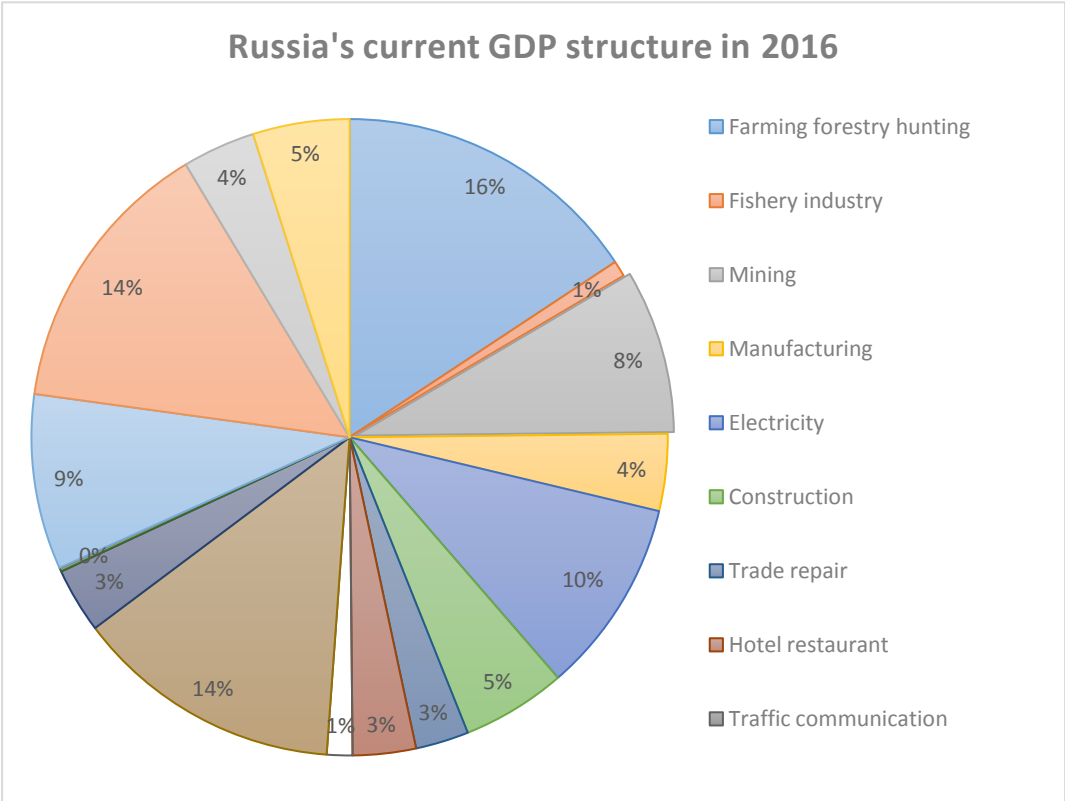
Unit: hundred millions

Year	Total amount	Year-on-year growth rate	Amount of export	Year-on-year growth rate	Amount of import	Year-on-year growth rate	Difference
2013	387,9	-31,83%	175,14	-47,05%	212,83	-10,70%	-37,69
2014	555,3	43,12%	296,12	69,08%	259,14	21,76%	36,98
2015	792,7	42,75%	389,03	31,38%	403,63	55,76%	-14,6
2016	881,9	11,26%	440,57	13,25%	441,38	9,35%	-0,82

In March 2014, Ukrainian crisis intensified, countries in Europe made economic sanctions on Russia, which caused the oil prices fell sharply and the devaluation of roubles. What's worse, the national economy declined in the overall, the annual budget deficit reached \$50.5 billion, which made foreign trade seriously damaged. Based on this situation, Russia took some active measures for implementation. Mr. Putin visited

China in May to sign a joint statement about the New Stage of All-round Strategic Partnership between two countries for the aim of clear trade relations. It can not only make the condition of Russia's downward economic better, but also can greatly promote the development of the trade between China and Russia. In 2014, the total trade volume reached \$952.95 billion, increased 6,76% than the previous year. Among them, China's exports and imports to Russia were respectively \$536.75 billion and \$416.19 billion, and compared with last year, they respectively increased by 8.24% and 4.92%. It can be foreseen that with the strengthening of the cooperation between China and Russia, the trade cooperation between two countries are going to enter a new stage of development.

2016 is an special year for Russia, so I select the GDP structure in this year to make an analysis (Picture 1.1).



Picture 1.1 - Russia's current GDP structure in 2016

We can see from this table, Farming forestry hunting is the most developing industry in the GDP structure. Because Russia is a country full of area, especially the forest. So, to some extent, The farming forestry hunting can help Russia develop economy [22].

In 2016, Russia's gross domestic product was 44939153 billion rubles, net overseas factor income was -14707712 million rubles, gross national income (GNI) is 43468441 million rubles, the recurring revenue was -1250.82 billion rubles, national disposable income was 433433.59 billion rubles, and the national total savings rate is 112731.08 billion rubles.

In 2016, Russia's gross domestic product fell from 98.09% of GDP in 2010 to 96,73%, it fell by 1.36 percentage points; Total disposable income has fallen from 97,99% of GDP in 2012 to 96.45%, it fell by 1,54 percentage points; And total national saving amounted to 25.09% of GDP, down from 28.29% in 2013, it fell by 3,20 percentage points (Table1.4).

Table1.4 – The trade between China and Russia in 2017 Unit: hundred millions

Year	Total amount	Year-on-year growth rate	Amount of export	Year-on-year growth rate	Amount of import	Year-on- year growth rate	Difference
2017	952,95	6,76%	536,75	8,24%	416,19	4,92%	120,56

With the improvement of international status of some emerging countries such as China, in this financial crisis, they are gradually becoming the important participants in the major international issues [55]. From the G8 to the G20, the change is not only just a

simple digital addition, the more important point is that the emerging countries can have right to make a dialogue with Europe, the United States and other developed economies. At the same time, the world economy is changing slowly, the dominance of dollar as the global reserve currency will gradually give way to other monetary system including Yuan and Rubles [4].

We must see that there are some uncertain factors in the trade between China and Russia, or irregular factors, such as China's purchases of Russia's military industry products and nuclear power plant project technical equipment, etc. . this purchase doesn't happen every year, and also not trade growing stability factor. Therefore, whether China and Russia trade can continue to grow, whether it can continue to maintain the acceleration momentum, mainly depends on the general merchandise trade and service trade potential.

Firstly speaking, The potential for demand in the Russian market remains high. In recent years, as Russia's economy continues to grow and its residents' incomes rise, Russia's demand for the following categories of products will grow [68].

1. Mechanical and electrical products. At present, there are quite a few existing appliances in Russia that need to be eliminated. It is understood that more than half of the color TV needs to be updated, and the demand for refrigerators, air conditioners and small appliances is strong. In the past 10 years, the number of reapers and tractors in Russia has been reduced by nearly half, and the annual scrap rate of equipment has reached 6% to 10%, which is urgently needed to update agricultural machinery, machinery and equipment and establish new maintenance systems. The processing

equipment of Russian woodworking machinery is backward, and the wood can only be processed [29]. The demand potential of this type of mechanical products is very high.

2. Building materials. As the Russian real estate market continues to heat up, demand for building materials is on the rise. At present, Russia needs 70% of the heat preservation material imports, imports accounted for 55% of doors and Windows material, plumbing equipment accounted for 67%, roofing materials (91%), plywood (60%), paint (27%), metal tile (75%), natural clay accounted for 90% [41].

3. Textile clothing. Currently, Russia spends about \$36 billion a year on clothing and textiles, including clothing, footwear, pillow towels, bath towels, bedding, cotton, silk, etc. The textile industry in Russia is old and backward, which is far from enough to meet the demand, relying mainly on imports [59].

4. Furniture. Russia's demand for furniture will grow 5-7 times over the next five years, according to Russian experts. The biggest obstacle to furniture production in Russia is that the equipment is old, with a rate of 70% to 80%, and 40% of it has been used for more than 20 years [8]. The medium density plate of furniture used in Russia relies on import, and the quality of the surface materials and paints are mainly imported. The main problem of Chinese furniture exports to Russia is that the design style does not match the market demand.

5. Agricultural products. The agricultural production capacity of the Russian far east is decreasing year by year, the supply and demand contradiction of agricultural products is increasingly prominent, and the cost of transportation from Europe is high. At present, only the far eastern region has an annual grain shortfall of 800,000 tons, a

vegetable gap of 400,000 tons, meat and meat products of 400,000 tons, milk and dairy products of 600,000 tons, and a fruit gap of 400,000 tons. More than 80 percent of the vegetable demand in Russia's far east is imported from HeiLongJiang province, and the market price is four to six times the price of similar products in China [72].

Secondly, The demand for some of Russia's products is sustainable and potential growth. Look from the next 5 to 10 years, the Chinese market for many products in Russia, including technology products demand, not only has the characteristics of continuity, but also has a predictable growth potential, embodied in the following six aspects [21].

1. Demand for energy products will continue to grow. As China's economy grows, demand for energy, especially oil, gas and electricity, will rise sharply, and energy imports will expand. Take oil. China imported 70.27 million tons of oil in 2010, 6.026 million tons in 2011, 69.41 million tons in 2012, 9112.63 million tons in 2013, 1.228 155 million tons in 2014 and 130 million tons in 2015. China has a diversified strategy for oil imports, but the import of oil from Russia is the focus of this diversification strategy. In the past six years of increasing oil imports from Russia, we have seen a broad prospect of oil trade between China and Russia. In 2010, China's oil imports from Russia were 147,67 million tons; in 2011, it was 1766 million tons; in 2012, it was 302.96 million tons; in 2013, it was 525,48 million tons; in 2004, it was 1,0774 million tons; in 2015, it was 1,278 million tons. As the oil pipeline between China and Russia, gas pipe laying and the docking of the electrical network, China and Russia in the field of expanding trade scale will, if you consider the rising oil price, the total amount of the

bilateral energy trade will become even more significant [77].

2. China's demand for Russian nuclear technology equipment remains high. From China's energy strategy, accelerate the development and utilization of nuclear energy, building more nuclear power plants have been included in the construction of China's long-term planning, and Russia has a big advantage in the field and the export ability, can export to China of technology and equipment with strong competitiveness.

3. China's demand for Russian timber is sustainable. At the moment, 40% of China's timber needs to be imported, and Russia is fully capable of meeting that gap. It is just that Russia regards timber as a strategic resource [21], so restrictions on logging and exports have led to policy constraints on the timber trade between China and Russia. The volume of trade in spite of this, China's import timber from Russia and showed a trend of increased year by year, the Chinese wood imported from Russia in 2000 at 5,931 million cubic meters, 2011 to 8,765 million cubic meters, 2012 to 1,48084 million cubic meters, 2013 to 1,4367 million cubic meters, 2014 to 1.701 million cubic meters, 2015 to 2,00432 million cubic meters.

4. China to Russia's coal, minerals, non-ferrous metals, chemical raw materials and demand for goods such as chemical fertilizers will only increase, not decrease [65], and the demand in China for a long time this will not diminish or disappear. Russia has this supply-side capacity, and China's demand scale and affordability are unquestionable.

5. China's demand for Russia's large power station equipment and large engineering construction machinery will also remain fairly large and fairly high. Future

period, China's infrastructure construction and real estate development will still be hot fields, the government and enterprises investment in some large engineering machinery exports Russia can go a long way [45].

6. China has a strong demand for Russian technology products in many fields, such as biotechnology, materials technology, nuclear technology, agricultural technology, aerospace technology, information technology, etc. Although China has formulated and implemented its own innovation strategy, it needs a process from basic research to the formation of industrial technology, and it also advocates innovation on the basis of imitation and absorption. Russia has unique advantages in the technical fields, from Russia's overall technical level, the Russian one quarter of the technology is a world leading level, with 1/2 the first-class level in the world, two-thirds of the technical level and that of the United States [49]. Technology trade between Russia and China, therefore, the potential is very large, if Russia can realize own advantage fully, can really see China as a trustworthy strategic partner, can completely get rid of the cold war thinking pattern, technical trade prospects between China and Russia.

To sum up, as for the status of the trade between China and Russia in the global economy, China actively participate in international financial and economic cooperation with an open attitude and responsible attitude. With the deepening of the reform and opening up and the improvement of China's comprehensive national strength, China participated in more international macroeconomic dialogue and continued to expand. The Chinese economy has become a focus in the world, and play an important role in the world economic stage. At present, China established economic dialogue and

cooperation of finance with the United States, Britain, the European Union, Japan, Russia, India, Brazil and Indonesia eight countries [43]. These behaviors can not only enhance the mutual understanding on major economic policy, but also can become an important bridge and link of the bilateral relations. And in these eight countries, the trade between China and Russia develops most quickly and stably.

Summary of first chapter

The trade commodity structure is the most intuitive indicators of the composition of goods trade in a certain period. As for the trade commodity structure between China and Russia, we all know that Russia is the largest country in the world, which is rich in resources, especially mineral products and natural resources, such as oil, natural gas and so on. Russia, as a close neighbor, has stable import channels. With China's economic development and the growing demand for resources, the mineral products and chemical products are still the main products imported from Russia. I will talked about three main characteristics in the trade structure between China and Russia. Before analyzing the trade relationship between China and Russia, I analyzed the relationship between China and other countries. In this chapter, I select the GDP of Russia in 2016 to do the research.

2 THE AGRICULTURAL TRADE STRUCTURE BETWEEN CHINA AND RUSSIA

As the leading producer and consumer of agricultural products in the world, China and Russia are important trading partners of each other in agricultural products. In 2008, the agricultural products trade volume accounts for 12,3% of the total amount of trade between China and Russia. China is the largest agricultural export market in Russia, and in 2008 the Russian agricultural exports to China accounted for 14,1% of total exports of agricultural products from Russia to other countries [24]. Russia is one of the most important agricultural products import market in China, it is only behind the United States, Brazil and Argentina. In other words, Russia is China's fourth largest source of agricultural imports. In 2008, China's imports from Russia accounted for 6,5% of the total amount of China's agricultural imports of agricultural products to other countries, At the same time, the agricultural products trade deficit between China and Russia is an important component of China's agricultural products trade structure. At the same time, the agricultural trade deficit was \$7,25 billion in 2016, accounted for 9,6% of China's total agricultural trade deficit to other countries.

In these years, the agricultural trade structure between China and Russia is facing some new development opportunities and challenges [46]. In the face of these problems and challenges, the two governments need to improve the level of agricultural science and technology cooperation between the two countries by constantly, build some quality certification centers which can make sure the quality of agricultural products and some

other measures such as circulation infrastructure which can make sure a smooth transport process of products. What's more, two countries both need to improve the export standards of the quality of agricultural products. The cooperation between China and Russia should strengthen the investment of agricultural science and technology and strengthen the flow capacity of agricultural products [11]. In a word, it can promote the development of agricultural trade structure between China and Russia better and faster with a positive response when facing with the new challenges brought by Russia's accession to WTO.

2.1 The current situation of agricultural trade structure between China and Russia

From 2008 to 2015, the volume of trade is expanding persistently between China and Russia. In 2008 China's exports trade volume of agricultural products was just \$440,57 million, but in 2009, it has amounted to \$1,98506 billion. It was more than \$10 billion in 2014 with a growth percentage of 38%. At the same time, China's import trade volume of agricultural products was also constantly expanding from Russia, it increased from \$677,15 million in 2002 to \$1,5713 billion in 2014. And in 2010, it has topped \$1 billion with a growth rate of 35% [77].

According to latest data released by the ministry of commerce, China's main exports products to Russia in the top three are: the canned of tomato paste, the canned of mushroom, apple and roast eel (Table2.1). In January of 2014, the export volume of the canned of tomato paste is 8428.9 tons, for the sum of \$9.274 million. Compared

with export volume in January of 2013, it increased by 58.9%, the exports year-on-year growth rate (compared with January in 2013) is 120.4%. The export volume of the canned mushroom in January 2014 is 5852.3 tons and in January of 2013, it is 4897.8 tons, the year-on-year growth rate is up to 19.5% .

Table2.1 – The average price of agricultural commodities in China (2008-2014), dollars

products	2008	2009	2010	2011	2012	2013	2014
Pig/1	121,65	128,9	130,92	162,32	233,35	195,31	196,83
Live poultry/1	1,73	1,49	1,67	2,11	2,92	3,75	3,75
Beef/Ton	1516,5	2075	2138,67	2644	4775	6121	5454,5
Pork/Ton	1584,76	1624,48	1484,74	2182,69	3445,63	2919,11	3018,27
Frozen-chicken /Ton	1320,71	1238,33	1358,8	1629,88	2238	1946,41	2082,8
Seafood/Ton	2291,92	2469,45	2443,05	2594,65	2958,33	3257,66	3622,3

However, the export volume of roast eel and apple's fell down slightly. In January of 2013, apple's exports volume is 12929.4 tons, by contrast of 14280.9 tons in January of 2012, it fell by 9.5%. Compared the exports volume of roast eel 327.2 tons in January of 2013 with the export volume of 395.5 tons, it fell down about 17.3%. Russia's main agricultural exports products to China are frozen fish, converted timber and logs. In January of 2014, the exports volume of frozen fish is about 61468.7 tons, compared with the export volume 108595.3 tons in January of 2013, it fell down nearly 43.4%. The export volume of converted timber is 354303.2 tons, it increased 27.1%. The export volume of logs in January of 2015 is 833617.2 tons, it increased by 23,7%.

It can be seen from the above data, China's exports to Russia is mainly about some gardening agricultural products, such as fruits and vegetables, which are the urgent need in Russian market due to the restriction of climate and it is difficult for Russian farmers to produce some of the agricultural products. And China's main import products from Russian are some agricultural products in fishing and forestry [61]. Because of the serious fact that there are too much people with less lands in China, and less and less forest resources, increasing demand for logs and other agricultural products, while Russia is rich in forestry resources. That's why Russia can just meet the needs of the Chinese market fully [30]. Most parts of China are inland regions, where the fishery resources is relatively poor, but the demand of fishery agricultural products is large. At last, this phenomenon promotes the development of the fishery economy in Russia. It seems that the import and export trade of basic agricultural products between China and Russia are complementary.

Although in recent years, the situation of agricultural trade between China and Russia is optimistic, but according to the whole situation, there are still some problems in the trade cooperation in agricultural sector between China and Russia, such as the small scale, low level, and not standard, etc. From the bilateral agricultural products trade volume between China and Russia in the proportion of the total bilateral trade volume between China and Russia, the agricultural product trade volume accounts for small proportion of total trade volume between China and Russia, and the increasing rate in bilateral agricultural products trade volume between China and Russia is slow. What's worse, the agricultural product trade volume accounts for the proportion of total

trade volume declines year by year [14]. It has declined from 9.37% in 2012 to 3.98% in 2015, by about 1.4 times. China's agricultural exports volume to Russia accounted for the proportion of total export of agricultural products is small. From January to November of 2015, the agricultural product import and export volume is of \$166.89 billion, and the year-on-year growth rate is up to 5.5% . Among them, the exports volume is about \$60.7 billion, the year-on-year growth rate is up to 7.1%, the export volume of agricultural products to Russia's is about \$2.1 billion, which is less than 3.5% of the total amount of agricultural exports [35]. As a result, there are many problems existing in the agricultural trade between China and Russia and need to be solved.

2.1.1 The new challenges and disadvantages of the agricultural trade structure between China and Russia.

The first challenge is about the serious problem of the quality and safety of agricultural products in China.

Because of excessive pesticide residues, heavy metal exceeds bid, the additives in violation of the using standard and so on, China has repeatedly received some notifications from federal veterinarians and plant health supervision bureau, the United States food and drug administration, the European Union, food and feed rapid alert system, and the Canadian food inspection agency and other multiple departments. In fact, there are really some serious problems of China's agricultural products, for example, the food hygiene is poor, pesticide residues and food additives and bacterial pollution serious problems [42]. However, according to Russian law, food and agricultural products subject to compulsory certification. Yet, the steps of Russia

compulsory certification standards is very complex to some extent. And 70% of the standard is different to the international standard, what's more, some parts of the safety coefficient of standard in Russia are even higher than that of developed countries. In this case, the quality and safety of agricultural products problems makes life difficult for China's agricultural products in Russian market. Taking the example of apples to Russia, China's exports volume of apple to Russia fell down from the export volume of 21146.2 tons in 2010 to 12929.4 tons in 2013. The main reason for this situation is that China used too many fertilizers and pesticides in the process of producing apples, which can't reach the standard of import in Russia.

The second challenge is the low technology, low added value of agricultural products and the unreasonable agricultural industrial structure [58].

China's rural economic structure is unitary, it is all about the traditional agriculture in the small business model with low technology, simple crop variety, low degree of the deep processing of agricultural products. What's worse, the rural and agricultural economic structure is unreasonable. Agricultural products only have some primary products, less special varieties and less famous quality products in general. It means, there are less processed products and deep processing products.

Take the rice in China as an example. In January of 2016, China's export volume of rice is 23541.1 tons, compared to the export volume in January of 2015, it fell by 38.4%, and compared to the amount, it fell by 49.0% . As for the average price, it fell by 17.1%. By contrast with other four major rice-producing countries in Asia, including India, Pakistan, Thailand and Vietnam, the rice production in China is TOP 1, but from

the perspective of international market share, China's market share is the lowest [63]. A large part of the reasons is that China's grain processing ability is weak, lack of conditioning technology of rice and the backward technology of rice polishing. In a word, the backward technology seriously affect the international competitiveness of agriculture.

Take the wheat as an example. In 2012, the average price of wheat is about \$440/ton in China, the year-on-year growth rate is up to 81.5%, the domestic price of wheat is over the price of international wheat after-tax, so China lost the price advantage. In May of 2013, the export volume of wheat is 4467.000 tons, amounted to \$1183245. And the average unit price is \$264.89 / ton, the imports volume in last month is 3633.000 tons. Affected by the rise of wheat prices, compared with the price of wheat in last month, is rose only 22.96% . In recent years, China's capacity of wheat processing increased a lot, from 2013 to 2016, the total capacity of new processing is about 60 million tons. However, the industrial structure is still unreasonable, and the problem of unbalanced development still exists. From the point of industry composition, there are not only enterprises with advanced technology, well-equipped, high productivity of large-scale processing, but also some small units of simple equipment, low utilization rate of raw materials [26]. In general, the low technology and low added value of agricultural products and the unreasonable industrial structure make enterprise's cost rise, unstable product quality and decrease the price advantage, which become the important factor of restricting China's agricultural exports.

The third challenge is the insufficient flow capacity of agricultural products

between China and Russia.

From the perspective of region, Russia has vast area, and nearly four fifths of the population, most of the cities and the capital Moscow are all in the parts of Europe. However, the main regions of agricultural products in China are decentralized and too far with the European part of Russia. From the perspective of traffic ways, the ability of railway transportation between China and Russia is limited and the cost is high. And the construction of the international logistics park is not perfect. From the perspective of information communication ways, because of the lack of research on the Russian market, together with the seal of the Russian market that has resulted in the insufficient information, many cooperation project went to failure which were possible to succeed before. At present, the insufficient transport capacity and information mis-communication have become a major bottleneck in the circulation of agricultural products between China and Russia.

The fourth challenge is brought by Russia's accession to WTO in agricultural cooperation between China and Russia.

The law to protect intellectual property in Russia includes the Federal Constitution the Federal Civil Code the Federal Criminal Code the Russian Federation of the Patent Law [13], The Russian Federal Trademarks, Service Marks and Names of Origin, A Computer Program and Database Protection and some administrative regulations etc. The total number of laws and regulations are more than 100, all these constitute the modern intellectual property law system of Russia. After joining to WTO, Russia needs to imply and enforce the intellectual property laws according to the

agreement of WTO. It means the protection of intellectual property in Russia will be further strengthened. And it will be more difficult for China to bring in Russian advanced technology. At the same time, because of Russia's accession to WTO, Russian government needs to reduce tariffs and open markets in accordance with the WTO rules. And the increasing number of countries and investment into Russia will promote the enthusiasm of import and export goods.

2.1.2 The new opportunities and advantages of the agriculture trade structure between China and Russia.

The first opportunity is brought by Russia's accession to WTO for agricultural cooperation between China and Russia (Table 2.2).

Table 2.2 – Russia's current GDP structure (2008-2016). Unit: Billion rubles

Industry	2008	2009	2010	2011	2012	2013	2014	2015	2016
Agriculture, hunting and forestry	573.8	667.4	773.4	864.2	981.3	1194.8	1486.4	1513	1468.1
fishery industry	29	59.4	61.7	55.5	58.1	61.6	62.7	80.9	81

The World Trade Organization made some countervailing rules for trade members in such aspects as anti-dumping, market access, intellectual property rights, trade policy and safety measures. After Russia's accession to the WTO, there will be some changes in opening markets, legal environment, certificating the quality of products and in intellectual property protection. According to the agreement of access to the bilateral market between Russia and the United States, in seven years of Russia's accession to WTO, the effective tariff rate of Russia's products will be reduced from 11% to 7% , the

average rate of industrial and agricultural products will be reduced by 3%. The tariff reduction will be conducive to China's export of agricultural products to Russia, and it is also conducive to the development of bilateral trade. In the process of accession to the WTO, Russia has carried out a large number of legislative work in order to make the law consistent with WTO rules. From April 8 to 9 in 2015, In the symposium on Standardize the Order of Trade Between China and Russia [18], the Russian emphasizes that they will energetically rectify Grey Customs Clearance. This word appeared at the beginning of the 20th century, after the collapse of the Soviet union urgently, Russia needed to import a large number of cheap goods, so a large number of Chinese entrepreneurs started the folk trade between China and Russia. However, Russian customs clearance were very complex. So in order to encourage more imports and simplify customs procedures, Russian customs commission allowed clearance for the owner's agent import business. By standardizing the order of trade, the agricultural trade between China and Russia will gradually be improved more specified and steadily [17].

The second opportunity is the closer trade interests between China and Russia.

In May 2015, the leaders of two largest countries in the Eurasian continent's discussed the relationship between China's silk road economic belt and the Eurasian economic union. The director of analysis Dmitry Baden Krakow of Russian investment company (Russ - Invest) told in an interview. For the effective development of the economic union architecture of European and Asian, we need to collaborate with the silk road project, rather than the competition [20].

Through the process of building "the silk road economic belt", there will be a

major breakthrough in the construction of infrastructure between Russia and China. China railway group (LTD), made an announcement that they have agreed the project of the railroad between China and Russia [74]. LTD and Russian companies has formed a consortium and has won the bid in Moscow, Russia - kazan high-speed rail project. The idea is to consolidate the foundation of the trade between China and Russia. It will speed up the speed of flow, logistics and information through the construction of high-speed rail, and it is beneficial to increase Russia's import products of fruit and vegetable to our country. At present, China railway corporation is coordinating all railway departments around the world, actively cooperate with fruits and vegetables logistics trade enterprises and improve the railway cold-chain logistics facilities. This series of measures can promote the sustainable development of agricultural trade between China and Russia [39].

At the same time, under the influence of some new policies, regions in the far east of China will develop to strengthen strategic cooperation further. From the perspective of agriculture, Russian offered the land of regions in far east of China and set up co-operational farms with China. our country increased Russia's food import volume and export volume through the large area of land lease on Russia. What's more, we can gain the implementation of the two countries in agriculture win-win [15]. According to Information released on China's industrial information network, in January of 2016, the import amount is \$158.819 million, and compared to the import amount of \$83.896 million in January of 2015, the import year-on-year growth rate is 89.3%. Thus, under the guidance of the Belt and Road policy [41]. The silk road economic belt and

maritime silk road in the 21st century, it has far-reaching significance through the construction of economic zone silk road between China and Russia and promote the further development of the agricultural trade between the two countries [23].

2.2 The trend of the agricultural products trade between China and Russia

Due to China's status as a developing country and its severe shortage of arable land, farming in China has always been very labor-intensive. However, throughout its history, various methods have been developed or imported that enabled greater farming production and efficiency. They also utilized the seed drill to help improve on row farming. During the Spring and Autumn period, two revolutionary improvements in farming technology took place. One was the use of cast iron tools and beasts of burden to pull plows, and the other was the large-scale harnessing of rivers and development of water conservation projects. These developments were widely spread during the ensuing Warring States period, culminating in the enormous Du Jiang Yan Irrigation System engineered by Li Bing by 256 BC for the State of Qin in ancient Sichuan.

For agricultural purposes the Chinese had invented the hydraulic-powered trip hammer by the 1st century BC, during the ancient Han Dynasty. Although it found other purposes, its main function was to pound, decorating, and polish grain that otherwise would have been done manually. The Chinese also innovated the square-pallet chain pump by the 1st century AD, powered by a waterwheel or an oxen pulling on a system of mechanical wheels. Although the chain pump found use in public works of providing

water for urban and palatial pipe systems, it was used largely to lift water from a lower to higher elevation in filling irrigation canals and channels for farmland.

The agriculture Industry in Russia suffered a major setback following the disintegration of the Soviet Union in 1991. However, over the years the scenario has changed drastically. The establishment of Separate Russian federation and the change in the legal environment has played a crucial role in resurrection of agricultural industry in Russia. Today, agriculture industry in Russia is growing at a fast pace. Though Russia is primarily an Industrial economy, the agriculture industry is huge. The agriculture industry in Russia accounts for about 6% of the total national GDP. Also, agriculture is one of the largest employment providing industries in Russia. Agriculture industry provides employment opportunities to more than 16% of the Russian population.

Although Russia is a snow-clad nation, it has a huge area of land meant for cultivation of crops. Russia has well over 23 million hectares of cultivable land. The most important crops grown in Russia are mostly grains. Grain cultivation occupies more than 50% of cultivable land area. The most dominant food crop cultivated across Russia is wheat. Wheat accounts for more than 70% of the total grain production in the country. Russian farmers cultivate wheat during both winter and spring seasons. Winter wheat is cultivated vastly in the Northern regions like Caucasus. Spring wheat is cultivated mainly in the Don Basin and in the middle Volga region. Thus, there is a great investment opportunity for foreign investors to investing in cultivation wheat. Investors can reap great advantage of cultivating wheat irrespective of seasonal condition. The second largest cultivated crop in Russia is Barley. Every years Russia

produces more than 10 million tones of barley, grown over 10 million hectare of land across Russia. This reflects that the productivity ratio of cultivable land is amazingly highly. Barley is mainly cultivated to be used as feed grains. However, in recent times the demand for production of barley has increased due to the expanding of brewery industry. Barley is the primary raw material for brewing.

Russia promised that they will open the trading system after the accession to the WTO further and accelerate the speed of joining into the world economy then create a new investment environment with more predictability and transparency of trade.

2.2.1 The agricultural trade scale will be continued to expand.

After joining to the WTO in 2011, the average import tariff rate in Russia's commitment changed from 7,8% to 10%, the average import tariff rate of agricultural products fell from 13,2% to 10,8%. It is good for expanding exports of agricultural products which are relevant to China's products when cut down the agricultural products import tariff. At the same time, Russia promised that they will cut the export tariff rate, including aquatic products and agricultural products, which will promote the growth of China's imports from Russia. Before joining to the WTO, Russia agricultural trade policy lacked stability and transparency, and they would take some temporary measures which do not conform to the international trade rules for the aim of protecting their own agriculture, and these behavior made a bad but deep affect to the trade partners. After joining to the WTO, Russia agricultural trade policy must be in accordance with WTO rules, which will improve the agricultural product trade external environment and promote the agricultural products trade between China and Russia to

continue to grow rapidly.

2.2.2 The exports of China's advantage agricultural products such as vegetables and fruits to Russia have greater room for growth.

In recent years, with the development of Russia's economic situation, people's income and purchasing power are increased. Russians' demand for fresh fruits and vegetables are increasingly strongly, which made Russia become the world's fifth largest fruit consumption market. Due to the climate in Russia, most of Russia's land belongs to the north temperate zone and sub-frigid zone continental climate. Only 3 months of a year can supply fresh fruits and vegetables, so it is difficult to fulfill the market's demand. The percentage of vegetables produced by themselves which can be named domestic product is less than 20% of the insufficient demand, and most of their fruit and vegetables depends on imports from other countries. China, as the world's largest producer of vegetables and fruits, at the same time, China is Russia's largest neighbors, the advantages of geographical location is very clear, the conditions of traffic is good and convenient. but relatively speaking, the exports to Russia was small. In 2015, China's exports to Russia, vegetables and fruits, respectively accounted for 4.34% and 7.67% of the total amount of China's exports. After joining the WTO, Russia decided to cut import tariffs on products, so we can saw the rapid growth of China's exports to Russia [60].

2.2.3 The agricultural investment between China and Russia.

Generally speaking, the foreign investment in the field of agriculture is often happened in two national and regional level. So agricultural enterprises regional

cooperation between China and Russia first appeared in the Russian border region. Russian Baikal area and the far east and the provinces in the northeast of China have the adjacent geographical position, and the backwardness of agricultural production and the insufficient supply of agricultural products had given rise to a lot of China's agricultural investment projects for Russia. China's HeiLongJiang province and Russia Primorsky region, Amur state and so on, they are both the traditional agriculture area of cooperation. The Harbin International Economic and Trade Meeting in 2011 identified the Russian border region as the agriculture investment priority areas. At the national level, China's agricultural investment projects tend to make the products for Russia for the aim of fulfilling Russian market. The increasing expanding of regional scope of agricultural cooperation between China and Russia, it has expanded from the past Primorsky region to the inland of Russia, such as extended to Chelyabinsk City, Krasnoyarsk City, Novosibirsk city, Moscow and so on, the cooperation projects are also increasing gradually and accumulated a lot of experience from each other.

In a word, it will have a positive influence on agricultural product trade between China and Russia after Russia's accession to the WTO. The improvement of trade environment and the concession of import and export tariff of the agricultural products will encourage bilateral trade continues to grow rapidly [69]. The more free environment will be conducive for China to get some imports from Russia, especially its strong comparative advantage of bulk grain products such as wheat, corn and so on. In the meantime, it will also promote agricultural exports to Russia. In the long run, the bilateral agricultural trade structure between China and Russia will continue to

optimize.

2.3 Countermeasures to promote the development of agricultural trade between China and Russia

First of all, we need to improve the export standards of the quality of agricultural products.

As for the problem of the quality and safety of agricultural products. First of all, the government needs to change people's ideas and promote the national green food, abandon the traditional idea of "eating the unclear food can prevent us from disease". We need to increase consumer's demand for food quality and safety, what's more, we also need to improve the producers' consciousness of the good faith management and we can't tolerate any quality problem or safety problem of the enterprise, which can be called zero tolerance. Secondly, China must improve the standards of quality of agricultural export products as soon as possible and promote some enterprises which pay attention to processing the agricultural products to adopt the international standards certification after drawing lessons from the successful experience of other countries. Finally, our country should also actively establish the center of quality certification center and establish the mutual and common certification institutions together, and then guide more production enterprise to go through the quality certification of agricultural products [28]. The government also should provide more support to the brand enterprise, put the implementation of preferential policies into practice, and enhance competitiveness.

Secondly, the cooperation between China and Russia need to strengthen the investment of agricultural science and technology.

Our country should actively seek the cooperation with Russia and bring in some more advanced agricultural science and technology. Two countries make a talent exchange in the way of considering university as a link between China and Russia, for the aim of educating the compound talents of combining the cultivating scientific research and application. At the same time, China should learn the good agricultural developing experience from Russia, and Russia also need to learn the good agricultural developing experience from China, which means mutual use for reference the experience of agricultural development. And then two countries need to consider complementary and mutual benefit from each other. At last, China and Russia can both win-win. If considering the foreign markets as a guide, we need to rely on the resources and technology development, then realize a multinational optimized combination of the factors of production. Our country should also increase the agricultural financial expenditure, and guide the upgrading of industrial structure and promote agricultural industrial structure to be rationalization. Besides, we also need to upgrade the enterprises' production equipment for the aim of promoting agricultural production industry and improving the added value of agricultural products. China and Russia try to promote the development of agricultural science and technology through the technology complement with each other, mutual investment, agricultural fund and establish stable cooperation between China an Russia.

Thirdly, we need to strengthen the flow capacity of agricultural products.

As for the problem of insufficient transport capacity, we need to establish international logistics network of agricultural products between China and Russia. In the border between China and Russia, we can establish a large agricultural products distribution center and to make the cold chain transportation and preservation for the basic construction of infrastructure more perfect. It is the countries' responsibilities to improve the construction of railway transportation between China and Russia. As for the information lag issues, China should perfect the construction of information platform of agricultural trade in the border [54]. For example, the information platform need to collect more information about the agricultural laws, regulations, agricultural production, market supply and demand information, and then provides more information of agricultural products in China. At last, we need to advertise the characteristics of our agricultural products.

Fourthly, we need to response to the challenges brought by Russia's accession to the WTO in the agricultural trade between China and Russia positively.

According to the advice proposed by Chinese and Russian Leaders' Regular Meeting Committee Economic and Trade Cooperation Committee Meeting Agreement (signed in Moscow on May 23, 2000), the standard measurement certification and inspection regulation can play a more significant role in the import and export of two countries. And will ensure the quality and safety of bilateral import and export commodities, vigorously promote the development of bilateral trade and eliminate technical barriers of trade. What's more, we need to simplify the inspection and conformity assessment procedures, and strengthen the standards, conformity assessment

and strengthen the certification and cooperation in the field of import and export commodity inspection.

As for the series of measures for Russia to strengthen knowledge's protection, we need to strengthen the degree of agricultural science and technology cooperation between China and Russia further. Since China's reform and opening up, China's science and technology significantly increased, and the scientific and technological cooperation between China and Russia has transformed the original "one-way flow" to now two-way interaction. By the complement with each other, it will be more conducive to achieve win-win between China and Russia fully. After Russia's accession to the WTO, there were more fierce competition in market. So, Chinese enterprises should be actively to improve their own competitiveness. As for the government, they should strictly control the quality and safety of agricultural products by promoting the development of agricultural trade between China and Russia and then make more benefits for all the people in China and Russia.

Summary of second chapter

As the leading producer and consumer of agricultural products in the world, China and Russia are important trading partners of each other in agricultural products. To get a better view of the current situation of agricultural trade structure between China and Russia, I selected a lot of data. In the process of developing, both governments will meet some challenges and opportunities. If we can seize them peacefully and successfully, the agricultural trade scale will be continued to expand.

3 THE INFLUENCING FACTORS OF TRADE STRUCTURE BETWEEN CHINA AND RUSSIA

The composition of trade, which is the reflection of trade status and trade connotation, can show trade interests and status in international division of labor. So the study on the composition of trade between China and Russia has important practical significance. The empirical analysis on the composition of trade between two countries indicates that: trade between China and Russia consists of low-level inter-industry trade mainly, and its main influencing factors are divided into two parts, from commodity structure to intra-industry trade [33].

As for the factors affecting the sustainable development of the trade between China and Russia, I will introduce it in six parts.

1. There is no mass and standardization of Russian trade. The total border trade between China and Russia reached us \$5.57 billion in 2015, up by 32.7% year on year. This is only the statistics of China's customs, and the actual border trade volume is much larger than that. Trade between China and Russia can reach more than \$300 in size, in addition to the border trade, mainly some big projects and pull of commodity trade, such as military products trade, oil, natural gas and power plant construction products trade, and formal general merchandise trade proportion is not very big. After the great wave of the 1990s, China's private, individual and state-owned trading companies largely withdrew from Russia. Therefore, at present, two salient features of Russian trade are: non-scale and non-normalized. It is difficult to realize the leap-forward development of this kind of trade.

2. At present, China's goods trade with Russia is mainly concentrated in Russia's far east Siberia region. Although most geographical advantages of the region's trade in China, but the population of the region, after all, limited, a total of more than 600, and income levels than the part is quite different from Europe, consumption level is low, the market capacity is limited. If China border provinces do Russian far east Siberia can also understand the market, or advantageous conditions, compared with a national enterprise should do trade into the area, makes the competition of international trade has become a domestic enterprise competition and regional competition, the parties will reduce trade interests, and from the perspective of sustainable development of the trade, is also a kind of myopic, the performance of the heart [27].

3. The narrow trade route between Russia and Russia has become a bottleneck in the development of the trade between two countries. In the border trade port between China and Russia, the SuiFenHe river is the best, the largest quantity of goods, and the trade port directly connected with the trans-siberian railway. In recent years, however, the SuiFenHe has been saturated. In suibin railway, SuiFenHe - the lower city of 95km is still a single line; SuiFenHe - Grojkow 26 km is still in orbit. Suiyang - dongning's local railway, although completed, has not been in line with Russia. Connected to the HeiHe River and blah GeWeiShen of bridge has been built, and people expect the MuDanJiang, SuiFenHe port to Russia, the sea to Japan and South Korea, North America and connect the southeast coastal area of domestic road transport channel that does not open sea. At present, although the roads leading to SuiFenHe and HeiHe have improved significantly, the road to other ports is still very poor and the import of a large

number of goods cannot be shipped out quickly.

4. At present, the Grey Customs clearance is still popular, although it is consensual, but the last loss is Chinese businessmen or enterprises. It happens that Chinese goods are confiscated and fined [36]. For China, the Grey Clearance between Chinese heavy discounting, interfere with the overall development of Russian market, harm the image of Chinese enterprises and Chinese products, is a major hidden danger of trade between two countries. From the perspective of the Russian government Grey Clearance make the national tax evasion, interfere with the normal trade order, the corrosion state functionaries, corrupt Russia's reputation, and even affect the process of WTO.

5. In recent years, Russia has imposed restrictions on exports of raw materials such as wood and minerals, products that China needs to import. To continue to expand the scale of the trade between China and Russia, it needs to strengthen mutual investment between China and Russia, especially to increase the resources development of China to Russia and product processing in the field of investment, investment to stimulate trade, optimize the structure of trade between China and Russia, upgrade the trade between China and Russia. However, Russia has a poor investment environment and a greater risk of investment. First, there are many technical requirements in the related investment laws and regulations in Russia, which often result in the arbitrariness of law enforcement. Second, local laws and federal laws are inconsistent, the relevant laws such as taxation are not stable, and there are often bad laws, which cannot fully protect the interests of foreign investors. Third, Russia still sets a series of restrictions

on foreign investment, such as restricting the development of oil and gas resources, banning purchases of real property, restricting foreign participation in bidding for state procurement and privatization of enterprises. Fourth, administrative barriers, such as setting conditions for foreign investment in the Russian banking system, and the highest proportion of foreign ownership in Russian enterprises, such as the amount of capital in the gas company cannot exceed 20%. Five is Russia's infrastructure and investment related facilities are not sound, the government's inefficiency, officials' corruption and social security situation are keeping investors away.

6. China and Russia have begun to face frictions and disputes in terms of trade structure. In the trade between China and Russia in recent years, China's exports to Russia is mainly light industry products and electronic products, basically belongs to the finished goods, while imports from Russia is mainly oil, timber, minerals and various non-ferrous metals, belongs to the raw material or primary products. Currently, about 50% of China's exports to Russia are light textile products, while imports of raw materials from Russia account for about 60%. In this case, Russia not only complain about emotions, and even produced disgusted even alert psychology, thinks that China only on the Russia's strategic resources, rather than buying more mechanical and electrical products in Russia, so Russia has repeatedly asked China to import more of mechanical and electronic products. We can understand the Russian mood, mentality and demand. But we must give explanations and explanations rationally and objectively. First, the trade between two countries is generally balanced and in most cases Russia's surplus, which is totally different from china-us trade. The trade structure of China-Russia trade

is not an artificial result, but the industrial structure of the two sides and the complementary of bilateral trade [77]. Without such complementary, the trade between China and Russia is out of the question. Second, Russia belongs to churn out more mechanical and electrical products, Europe and the United States and in terms of quality, process on product cannot be compared, and the after-sales service and spare parts supply, etc are not in place, so customers in China, including large nuclear power plant equipment in Russia's exports to China, and its design thinking the world first-class, but the quality process is a constant problem. In addition, we also should see, China from Europe, America, Japan and other countries import of mechanical and electronic products enterprises, many enterprises to build a factory for these countries to invest in China, and Russia investment enterprises in China in such companies are very few, therefore, there is no demand in this area.

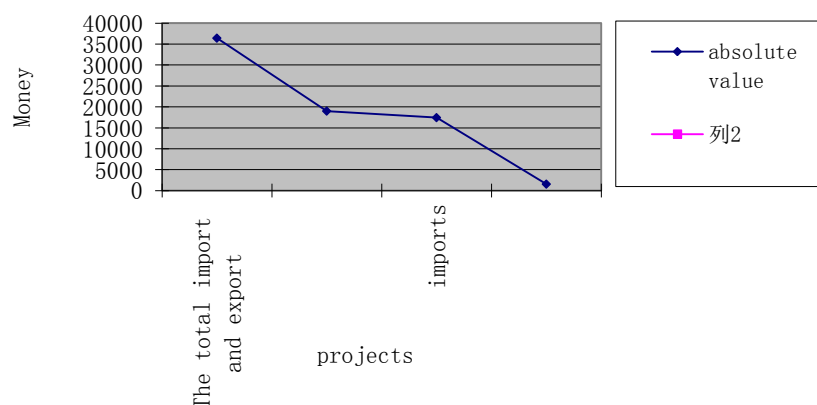
At first, let's have an overview of brief details of China's import and export in 2017 (Table 3.1, Picture 3.1).

Table3.1 – China's import and export in 2017 Unit: billions of dollars

project	December		January---December	
	Absolute Value	year-on-year growth %	Absolute Value	year-on-year growth %
The total import and export	3329,2	12,6	36420,6	22,5
exports	1747,2	13,4	18986,0	20,3
imports	1582,0	11,8	17434,6	24,9
Gap between imports and exports	165,2	31,0	1551,4	-14,5

From these two tables, we can see that, for the whole of 2017, the total import and

export of the country was 36420.6 billion us dollars , its year-on-year growth is 22.5%. Among them, \$1898.6 billion was exported, and increased 20.3%; \$17434.6 billion was imported, increased 24.9%.



Picture 3.1 - Import and export in 2016

In December, the country's total import and export totaled \$329.2 billion, the year-on-year growth is 12.6%. Among them, \$1747.2 billion, increased 13.4%; \$1582.0 billion imported, increased 11.8%.

Then let's have an overview of the data in Russia's import and export from 2014-2017 (Table 3.2).

Table 3.2 - Russia's import and export (2014-2017) Unit: billions of dollars

	2014	2015	2016		2017	
	Amount	Amount	Amount	Year-on-year growth %	Amount	Year-on-year growth %
import-export volume	750,91	886,84	882,66	-0,47	635,53	-28,00
export volume	240,48	356,19	374,92	5,62	286,02	-23,71
Import volume	510,43	530,65	507,73	-4,32	349,51	-31,16

balance of trade	-269,96	-174,46	-132,81	-23,88	-63,49	-52,20
------------------	---------	---------	---------	--------	--------	--------

In this table, we find that the situation of the import and export in Russia is not very optimistic. From 2015, The year-on-year growth is negative. Although the data in 2016 was still negative, compared to 2015, it was better. So in such a serious situation, the analysis of influencing factors is important.

3.1 The influencing factors of commodity structure between China and Russia in empirical analysis

The commodity structure of international trade refers to the composition of commodity or certain commodities in the whole international trade in a certain period of time. In this chapter, I will talk about four influencing factors of commodity structure between China and Russia. In brief, from the first influencing factor to the fourth influencing factor are as follows: Difference of factor endowments; Capital labor ratio; The level of economic development between the two countries; Foreign direct investment [66].

3.1.1 Difference of factor endowments.

The difference in factor endowments will lead to the creation of international trade, which is called the factor endowment theory. And it is also called the H-O theory, which is the new beginning of modern international trade theory. The basic content of the trade theory is divided into narrow parts and broad parts. In the narrow sense, the theory of

factor endowments is to use the abundance and lack of the essential productive factors to explain the emergence of international trade and the type of import and export trade of a country. In the broad sense, the broad theory of factor endowment includes narrow theory of factor endowment and the equalization of factor price.

According to the theory of factor endowment, a country's comparative advantage product is the product that should be exported, which is needed to be used widely in production, especially some relatively abundant and inexpensive production factors. However, the imported product is a product which is needed to be made in production, for example, some relatively scarce and expensive production elements. In a word, labor-intensive countries export labor-intensive goods while importing capital-intensive goods. Instead, capital-rich countries export capital-intensive goods, importing labor-intensive goods.

3.1.2 Capital labor ratio.

Capital-labor ratio refers to the total amount of capital divided by the amount of capital and then the result each worker owns. It is measured by the amount of capital and labor in the unit time. An important objective of economic growth is to study the dynamic characteristics of the capital-labor ratio over time.

An open question is the efficiency of the allocation of investment in China. While the authors find clear evidence of misallocation of investment across provinces and across the three major sectors of the economy, they also find some evidence that it may have lessened over time. However, it could be that the bulk of the capital misallocation takes place within provinces and within the three broad sectors. Data at the firm and

farm level would be needed to address this question. The authors note that other researchers' estimates, based on firm level manufacturing data, indicate improvement in the allocation of capital across firms within sectors. First, output growth driven by growth in total factor productivity appears to have been quite rapid. Therefore, the capital-output ratio does not appear to have risen by much, despite the high investment rate. Second, the capital share of aggregate income has increased steadily in China.

An important conclusion of the neoclassical growth model is, when there is no technological advance in the economy, the economy will reach a stable state in the long run, and in this stable state, the labor ratio remains the same. Let K represent the capital-labor ratio, C stands for per capita consumption, and F is per capita output. So in a steady state, the increase in capital-labor ratio has two opposite effects on per capita consumption [77]. On one hand, it can raise the level of per capita output; On the other hand, it would increase the share of each worker's output for investment, which makes the share of consumption is going down.

A rise in the saving rate would increase the steady capital-labour ratio, the per capita output and per capita consumption will rise, and the increase in population growth will also reduce the steady capital-labor ratio. As the Labour force grows too fast, much of the current output will be used to provide capital for new workers. The improvement of technology can also arise the steady state capital-labor ratio. When a country's capital labor ratio rises, it means the country's production structure is rising, too [37]. To some extent, the production structure in this country will exchange from the labor-intensive industries to capital-intensive industries. And it also leads to the

conversion of import and export structures. So I put the the capital-labor ratio included in the influencing factors of trade structure between China and Russia

3.1.3 The level of economic development between the two countries.

To start this part, let's have see about Russia's Top Ten import trade statistics. The total imports is about \$1117.2 billion, decreased 36,66%, and it accounts for 61,18% of Russia's total imports (Table 3.3).

Table 3.3- Russia's Top Ten Import Trade (2014-2016) Unit: billions of dollars

Rank	Source of imports	imports			Proportion %			Year-on-year growth %
		2014	2015	2016	2014	2015	2016	
	Whole world	3152.97	2870.63	1827.19	100.00	100.00	100.00	-36.35
1	China	530.65	507.73	349.51	16.83	17.69	19.13	-31.16
2	Germany	379.16	329.75	204.40	12.03	11.49	11.19	-38.01
3	America	165.38	184.96	114.54	5.25	6.44	6.27	-38.08
4	Belarus	142.64	127.50	88.69	4.52	4.44	4.85	-30.44
5	Italy	145.56	127.29	83.20	4.62	4.43	4.55	-34.64
6	Japan	135.65	109.08	68.13	4.30	3.80	3.73	-37.54
7	France	130.12	106.30	59.19	4.13	3.70	3.24	-44.32
8	Ukraine	157.94	107.50	56.73	5.01	3.74	3.10	-47.23
9	Kazakhstan	59.80	74.45	47.83	1.90	2.59	2.62	-35.75
10	Korea	102.86	90.30	45.60	3.26	3.15	2.50	-49.50
	Sum	1949.77	1764.87	1117.82	61.84	61.48	21.18	-36.66

Throughout 2016, Russia's imports came from 237 countries and regions around the world, the Top 10 imports country came from China, Germany, the United States, Belarus, Italy, Japan, France, Ukraine, Kazakhstan, South Korea. China is the largest source of Russian imports country, the import is about \$349.51 billion, decreased 31.16%, and accounts for 31.16% of Russia's total imports.

A country's economic level will influence the structure of a country's import-export

goods, which is agreed by many scholars in economics. In this article, I use the GDP of China and Russia as a measure of the economic development of the two countries. Gross Domestic Product refers to, in a certain period, the value of all final goods and services produced by the economy of a country or a region, and it is often recognized as the best indicators of national economy. Its expression can be divided into value form, income form and product shape. From the value form, It is all the permanent units in a certain period and production of all goods and services is worth more than the same period of all the fixed assets of the difference between the value of goods and services, it means the sum of the added value in all permanent units; From the income form, it is the sum of the first income distribution of all permanent units within a certain period of time and assigned to permanent units and in-permanent units [67]; From the product form, It is the result of ultimate use of goods and services minus imports and services.

In the actual accounting, there are three kinds of calculation methods for expression of GDP , namely the production method, The method of income and expenditure. Three different kinds of methods reflect the gross domestic product and its composition in different ways. The results of these three different methods are respectively called the GDP of production, GDP of income and GDP of expenditure. The GDP reflected by three methods should reflect the same economic aggregate production activity during the same period. In practice, however, due to the source, diameter range, calculation method and so on, the influence of such factors as the three methods of calculation results tend to be different, which is namely statistical error.

3.1.4 Foreign direct investment.

In 2015, Russia attracted \$1901.8 billion in foreign investment, the year-on-year growth is 10.1%. Among them, the direct investment is about \$26.12 billion (15.4% of total investment), the year-on-year growth is 39,9%; The equities invest is \$1,09 billion (0.6% of total investment), decreased 39,9% from a year earlier; Other investments were \$1429.7 billion (84.0% of total investment), increased 6,6% from a year earlier. I did a search about the ranking of Russian investment in countries, and concluded the table 3.4 as follows.

Table3.4 – Russia's Top Ten import trade in 2015 Unit: billions of dollars

Country	Money
Cyprus	690.8
the Netherlands	681.8
Luxembourg	491.9
China	321.3
Britain	279.8
Germany	213.1
Ireland	200.9
France	132.3
the United States	103.1
Japan	99.8

It is reported, in 2015, Chinese companies signed contracts worth \$2.17 billion in Russia, and they completed sales of \$1.37 billion, decreased 19.7% than last year. The Chinese companies have sent 10,740 workers to Russia. In 2015, after the ministry of commerce approved, China's non-financial investment in Russia was \$4.07 billion, creased 518.2 percent year on year. Generally speaking, the data above shows a great

increasing in China's direct investment to Russia.

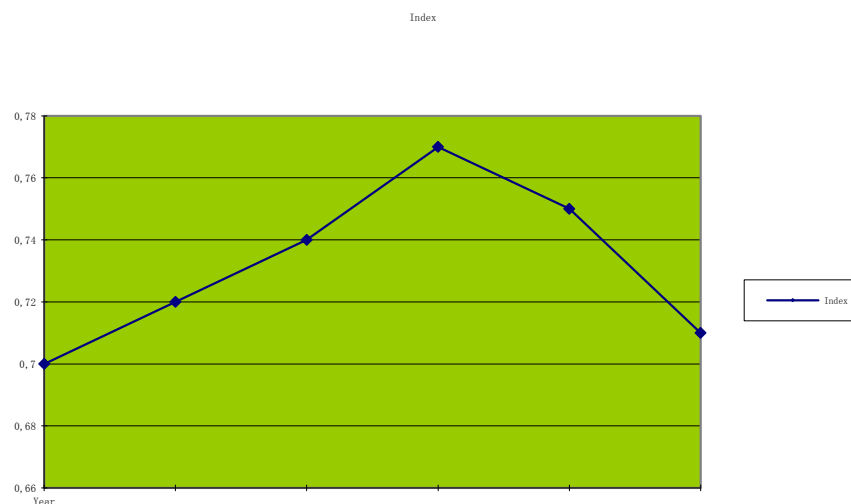
With the acceleration of globalization and the formation and development of the international production system of transnational corporations, international trade and international direct investment promotes development each other, and the trade effect of international direct investment becomes one of the most important researches of international trade theory [48].

In the previous time, Mondale and Vernon did their first study of the problem; In the early days, Marcus, Svenson and Dunning did a more thorough analysis, and they integrated the trade effect theory of traditional international direct investment; After the mids, Bhagwati and Other economists, such as Dinopoulos, had also made the research for the trade effect of international direct investment from the perspective of political economy. And then there are some studies to put the vertical integration and horizontal integration of foreign direct investment into the system of international trade theory, they explore the relationship of different kinds of trade and investment between different countries. The researches show that the influence brought by foreign direct investment to a country or region was not an isolated influence of foreign trade. foreign trade scale development faster, to attract foreign investment was greater, and the export of foreign investment in the host country can also play significant role in driving the growth. The faster the development of foreign trade, the more attractive the foreign investment will be, and the export growth of the host country will also play a significant role.

3.2 The influencing factors of intra-industry trade between China and Russia

Intra-industry Trade is short for Intra-industry International Trade, it refers to a country or a region, over a period of time, the phenomenon of the same industry sector products in import and export. For example, Japan's car exports to the United States, at the same time, Japan also imports cars from the United States; China's some brand shirts will export to South Korea and it also imports from South Korea at the same time some T-shirts. Intra-industry Trade Also includes the trade of intermediate products of industry inner trade, it means a product of the semi-finished products, spare parts in the trade between the two countries.

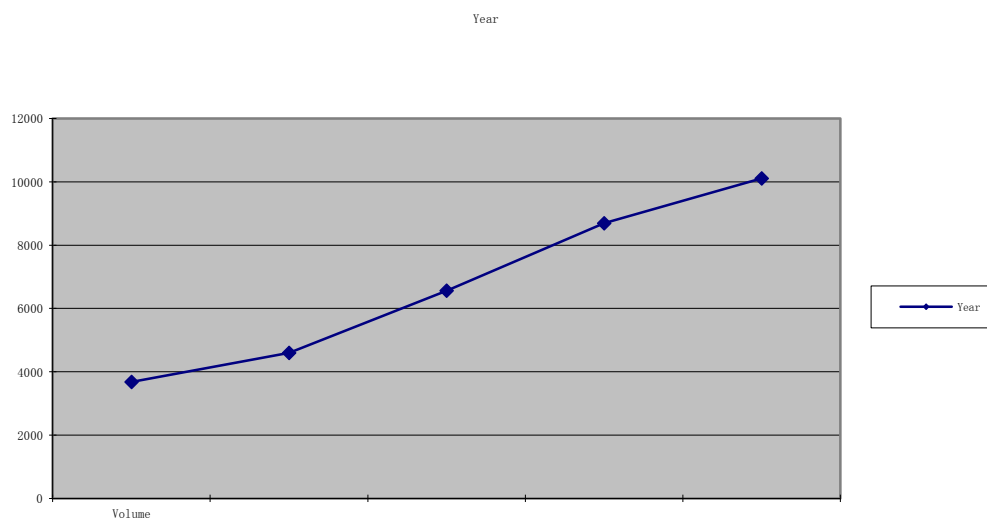
As for intra-industry trade in China, I made a survey from 2010 to 2015 (Picture 3.2).



Picture 3.2 - Index of Intra-industry Trade in China 2010-2015

From 2010 to 2013, The Index of Intra-industry Trade in China was increasing steadily. And 2013 is the best time for intra-industry trade, after this year, the

intra-industry in China decreased.



Picture 3.3 - Total volume of trade of Intra-industry Trade in China 2009-2015

Unit: billions of dollars

It shows that total volume of trade of Intra-industry Trade in China from 2009 to 2015 developed a lot.

In view of the development characteristics of trade in China-Russia industry and the research on relevant academic literature, this part will divide the influence factors of intra-industry trade between China and Russia into two categories: national characteristics and industrial characteristics, and I also select the following important factors' effects to make the detailed analysis.

3.2.1 The influencing factors of trade between China and Russia in national characteristics.

In national characteristics, I conclude four influencing factors of trade between China and Russia as follows.

The first one is about economic development level. The level of economic development of a country is an important factor that constrains the development of trade in the country, which can have a direct impact on the development of economic activities and the role of division of labor in international trade. Intra-industry trade is the first take place between developed countries [73]. Because developed countries have relatively high levels of economic development and relatively mature manufacturing, the domestic industrial structure also tends to rationalize with the improvement of economic development. As a result, intra-industrial trade between developed countries is relatively frequent and active in international trade activities, and mainly occurs in the trade of manufactured goods. It can be concluded that the level of economic development of the two countries has an important effect on the trade between the two countries. With the improvement of a country's economic development level, the level of trade in the industry will also increase.

The second one is about per capita income level. In general, the level of per capita income directly affects the demand and supply of the country's products.

On the demand side, the level of a country's per capita income is proportional to the diversification of consumer needs, for the aim of prompting manufacturers of countries to differentiate products and improving the development level of industry inner trade between countries. Falvey&Kierzkowski of F -- K model explains the trade phenomenon in the industry of vertical difference products from the point of view of the change of capital and labor factor ratio in the production process. This model introduces consumer income and assumes that high earners prefer higher-quality products, while

lower-income people prefer lower-quality products. And it also takes consumers income into account, then it is concluded that the influence of income level and the product demand preference, can promote the development of domestic industry in the trade [57].

On the supply side, the higher the per capita income level, the more able the production enterprise to produce differentiated products. At the same time, if the per capita income gap between the two countries is smaller, the more similar the consumer income structure will be. The greater the possibility of bilateral trade in a horizontal industry, thereby weakening the growth of intra-industry trade; On the contrary, the greater the gap between per capita income level, the parties to the size of the vertical intra-industry trade is likely to increase, thereby limiting the development of horizontal intra-industry trade. As a result, the difference in per capita income between the two countries will lead to the positive and negative effect for intra-industry trade.

The third one is the size of the market. The size of a country's market has an important impact on the development of intra-industry trade. For suppliers, the expansion of market size in this country not only helps to increase the number of products sold, but also increases the variety of products. Because enterprise reduces the cost of production in per unit product and improve product margins by scale production. And promote the development of intra-industry trade through research and development production differentiation of new products [40]. In addition, as for the consumer group of product needs, they also can expand the market size of the trading partners to meet their own preferences for foreign differentiated products. In brief, the bigger the market, the higher the trade in the industry.

The last one is the regional economic integration factors. As a kind of institutional arrangement, regional economic integration plays an active role in the development of domestic trade.

The specific performance are as follows: Firstly, because the regional economic organizations between countries implement the internal free trade policy, the size of the market for manufacturers in the group countries that participate in economic integration is expanding; Secondly, when regional economic integration is formed, the members of the group can realize intra-industrial cooperation and investment liberalization, and production factors and products flow freely within the region. As a result, they can actively promote intra-industrial trade among regional economies. Generally speaking, the higher the regional economic integration, the greater the trade proportion between the two countries.

Generally speaking, these four influencing factors of trade between China and Russia in national characteristics can have a definite relationship with the trade between two countries.

3.2.2 The influencing factors of trade between China and Russia in industrial characteristics.

In industrial characteristics, I make a research on product differentiation, economies of scale, market structure and foreign direct investment these four aspects. And I will describe the above four aspects in details.

1. Product differentiation.

International product diversity is the basis of intra-industry trade, most

intra-industry trade occurs between differentiated products. The effect of product differentiation is mainly in three aspects: One is that the horizontal difference product is at the same quality level, But its unsubstitutable brand, appearance, and other aspects of the product can satisfy consumers of different needs. When domestic companies cannot meet the growing demand of domestic consumers, they are driving the development of intra-international trade in horizontal industries; another one is that each country has a different level of technological development, and companies in different countries will process the same kind of product that is in different product life cycle and then the import and export activity between the countries happens, which will cause intra-industrial trade; The last one is the impact of budget constraints on consumers in a country with different incomes creates demand for vertically differentiated products from different countries, for the aim of maximizing the consumption effect and improving the welfare level and then to promote intra-international trade in vertical industries [51]. So, the degree of differentiation of products is one of the determinants of intra-industry trade, and the rest of the industry has a positive correlation.

2. Economies of scale.

Economies of scale are objective factors in the imperfect market, Represented by krugman, many scholars believed that economies of scale is the reason of intra-industry trade, lower production costs in per unit product and increasing return to scale will be a driving force on the occurrence of intra-industry trade. Because of the limited resources, a country will produce one or more products of large-scale specialization by virtue of its advantages of production factors, then achieve economies of scale and to meet

consumers' demand for differentiated products through intra-industrial trade, for the ultimate aim of increasing the level of utility of domestic consumers. However, economies of scale can also hinder the development of intra-industry trade by reducing production of differentiated product. This is because the positive effects of economies of scale may be diminished by the negative effect on intra-industry trade due to the reduction of variety products, which lead to a negative correlation. So, the impact of economies of scale on intra-industry trade is uncertain.

3. Market structure.

Market structure is one of the important factors of intra-industry trade. Scholars, who support the new trade theory, think that in the imperfect competitive market environment, the production manufacturers that have monopoly resources can realize the scale benefit when producing the differentiated products, and then change the trade pattern of import and export and the division of labor between countries determined by the difference of factor endowments [51].

There are different views on the positive and negative effect of market structure on intra-industry trade. I conclude two main views as follows: One thought that the degree of monopoly is inversely proportional to the number of enterprises and the variety of goods produced, and this will also limit the development of intra-industry trade to a high level, reduce its overall size; Another view is that although the number of enterprises has decreased, the scale of production of each enterprise has expanded. And the differentiated products of market demand are certain, therefore, the trade of differentiated products between import and export countries will be more frequent. It

means the impact of market structure on intra-industry trade is also uncertain.

4. Foreign direct investment.

The impact of foreign direct investment on intra-industrial trade depends on the purpose and type of direct investment. If foreign direct investment is to increase the scale of production in order to effectively combine the location advantage and the manufacturer's advantage, minimize production costs to gain economy of scale, and the vertical division of production distributes the production of intermediate products to relevant countries and regions. So this kind of production-oriented or export-oriented investment will bring International intra-industrial trade in intermediate and final products in the same group [50]; Conversely, if foreign direct investment is to allow the production of a subsidiary to maximize the market share of the host country, and such investment in the host country's products will be replaced and supplemented by the parent's export supply. This will reduce the trade volume in the bilateral intra-industry. At last, Inter-industrial trade has become a major trade model. Therefore, the effect of Russian direct investment in China on intra-industrial trade may be positive or negative.

Generally speaking, as for the product differentiation, economies of scale, market structure and foreign direct investment these four factors, we cannot accurately judge the effect of these four factors on trade between China and Russia. In different situation, they will bring different influence to the international trade. But as time goes by, I believe their influence on trade between China and Russia will become more and more obvious.

Summary of third chapter

It is about the influencing factors of trade structure between China and Russia, which I concluded five main factors: There is no mass and standardization of Russian trade; China's goods trade with Russia is mainly concentrated in Russia's far east Siberia region; The grey customs clearance ; Russia has imposed restrictions on exports of raw materials such as wood and minerals, products that China needs to import; China and Russia have begun to face frictions and disputes in terms of trade structure.

4 RECOMMENDATIONS OF IMPROVING TRADE RELATIONSHIP

So far, the development of trade between China and Russia is still in a primary stage, and the products based on resource trading business and final manufacturing are still the dominant products. But looking from the future for a period of time, two countries hold great potential in developing the trade between two countries. If we can take some necessary measures to push the development of the economic trade between China and Russia, the economic strength of two countries will be quietly changed and improved a lot.

After knowing about the factors affecting the sustainable development of the trade between China and Russia, then we can take countermeasures for sustainable development of the trade between two countries.

At first, We need to speed up the transformation and construction of transportation lines and open up a major trade route to Russia. In recent years, it is necessary to complete the reconstruction of SuiFenHe port, the SuiFenHe river - the Grotjkovo, SuiFenHe - MuDanJiang rewiring and the construction of DongNing - Usulisk local railway. Completed the electrification transformation of Harbin - SuiFenHe and Harbin - ManChuRia. Accelerate the HeiHe river bridge and the LuoHe bridge construction of HeiLongJiang province and north of dill, RaoHe bridge construction, complete the MuDanJiang, SuiFenHe, MuDanJiang, Hering, MuDanJiang, Acheng section of highway construction [53].

Then with the border port city and county as the rear, the base of the Russian far

east will make great strides towards the Russian heartland market. The European market has a high level of consumption, strong payment capability and great market potential. It is our target market to expand trade scale and upgrade the trade level. Recently, the federation of Chinese entrepreneurs is planning to establish a Chinese electro-mechanical product city in Moscow with relevant enterprises. I believe that this is a good idea for the development of the Russian market. To enter the European part of the market and extend Russia, on the one hand, need to establish gradually extended trade base, storage system and sales network, on the other hand need to optimize China's trade resources integration, formed on Russia's trade business group or association, to the best quality products, the most reasonable price, the best after-sales service and the most smooth supply channels in Russia European part of the market competition.

Next we need to accelerate the production, processing and export of agricultural and sideline products in border areas. In recent years, the border cities and counties in HeiLongJiang province have established export bases for grain export, vegetable export bases and meat and egg milk. In the future, efforts should be made to support leading enterprises, increase the support of policies and funds, and make the export base of Russia on the scale, quality and efficiency of the export base, and maintain the momentum of sustained development.

Besides, We ought to promote trade through investment and realize the integration of Russian investment and trade. Russia wants foreign investment in many production areas, needs foreign investment in infrastructure construction and transformation, and

foreign investment in resource development and deep processing. We should seize the opportunity to build a company in Russia that can meet the needs of the Russian market and sell products in Russia. This form will be able to avoid all kinds of difficulties in the transit trade, and adjust production scale and product specifications at any time, depending on the situation of the Russian market and the demands of consumers. In the process of investment, some mechanical equipment and raw materials need to be imported from China; Some products can be resold to the domestic market or sold to a third country after processing in Russia, resulting in the effect of investment on trade. The author thinks that, to establish production and processing park within the territory of Russia can hedge the risks of investment in Russia a lot of, also can more easily with the Russian government departments to communicate, the management of more borne by China, avoid all kinds of uncertain factors [64].

What's more, we need to promote the north and south businesses working together to invest in projects in Russia. In recent years, the southern enterprises of a growing interest on the Russian market and investment, but due to the lack of the understanding of the market and the investment environment, there is little, the experience of dealing with the government and businessmen, and discreet, scruples. And enterprises in HeiLongJiang province has advantages in these aspects, such as with the south enterprise capital advantages, management advantages, in Russia for project investment, should be complementary advantages, combination, can get good investment benefits in Russia. Of course, the key to the success of this approach is the choice of projects and the establishment of good cooperation mechanisms and mutual trust.

Considering more, with the advantage of Russian enterprises, the investment strategy of buying shell operation is carried out. At present, Russia has many large and medium-sized state-owned and private enterprise management benefit is bad, old technology and equipment, product and market demand does not adapt, but update the transformation and upgrading and insufficient funds. For such Russian companies, China's powerful companies can take the place of the investment strategy of shell - buying. On the one hand can save the new enterprises of all kinds of complicated procedures, enjoy various related to treatment of local enterprises, still can make full use of the Russian enterprise easy to deal with a Russian local government authorities favorable conditions; On the other hand, we can give full play to China's advantages in capital, application technology and management, and make enterprises stronger and stronger. Of course, this kind of joint venture between China and Russia need to divide the property clearly, clearly defined the income distribution principle, solve the Russian personnel placement and liability, at the same time to choose the right project and design for the future development of the enterprise operation and management mechanism.

Besides, we can rely on the advantages of the port advantages of SuiFenHe and rely on the advantages of Russian forestry resources, the timber trading center covering east Asia is established. At present, the LongJiang group of the SuiFenHe river is preparing to set up the timber exchange, the idea of this project is very good. We should actively support it to make the matter big, do the essence, make modernization and internationalization level. The timber exchange is designed for international standards

and USES modern electronic trading methods not only for spot transactions but also for futures trading. Not only to absorb Chinese customers, but also to attract Russian sellers to enter; Not only to buy and sell SuiFenHe market timber, but also to buy and sell the entire HeiLongJiang and Russian timber; Its buyer customers are not limited to China but to northeast Asia and even southeast Asia. Russia's forestry resources, a key support to the trading market, if the customer can be a lot of Russia the seller to enter this market, not only can save the cost of the intermediate links, also can make the wood more transparent and fair price, and can improve the trade efficiency, saving transaction costs [70]. The real benefits will push related interest groups in Russia, asked the government to relax and ease restrictions on export of wood and deforestation, thus ensuring the continuity of China to the Russian timber imports and long-term.

4.1 Some recommendations to improve trade relationship between China and Russia

In order to improve the trade relationship between China and Russia, the government and company both need to build up some new measures. So in this thesis, I will talk about some advice on government level and company level.

4.1.1 Some recommendations on government level to improve trade relationship between China and Russia.

At first, the government need to standardize the order of the economy and establish a more perfect market economy system.

Nowadays, there are many difficulties in the further development of economic trade between China and Russia. In the long-term business activities, there has been the grey clearance and a series of problems that contrary to the current laws and regulations. And these problems are the main factors that stop economic trade between China and Russia to have a breakthrough. The two governments attach great importance to standardize the order of trade between China and Russia, and analysis differences and problems existing in system of trade between the two countries, and also make adjustments to their economic policies, formulate some laws and regulations system and policy rules to make a more perfect economic and trade cooperation. Because the further development between China and Russia needs to have a production basis on perfect future regulatory body of the market.

In addition, the illegal business activities must be stopped in order to reduce the risk in the trade between two countries, and protect the legitimate interests, so as to enhance the degree of mutual trust between the enterprises both in China and Russia and promote the development of bilateral trade. As for China, Russia is a great opportunity because of the accession to the WTO. It can make standardization and rationalization of trade system in some degree and clear the way for the market to enter another country's market. It also can ensure the economic trade between China and Russia to have a balanced and orderly development.

Second, the government should make full use of geographical advantages and strengthen regional economic cooperation.

China and Russia are geographically neighboring countries, they both have the

advantages of closer distance and lower transportation cost, so in the development of economic trade between the two countries, they should combined region development strategy with economic, trade and investment cooperation, especially promote the development of border trade, so as to achieve win-win results. With the traditional geographical advantages and trade between China and Russia, two countries can obtain more geopolitical trade benefits, especially in the trade settlement, transport of goods, information exchange, and many other similar costs in inner trade. Those costs can be lower because of the relative geographical location. Our country should perfect the border port infrastructure, standardize the order of border trade and improve the efficiency of customs clearance [70]. At the same time, actively set up more special economic zones along the border between China and Russia or some regional cooperation platforms, for the aim of attracting more and more Russian capital, labor and goods, what's more, to excavate potential contained in geographical advantages of economic trade.

Third, the government should strengthen mutual investment and cooperation between China and Russia.

In recent years, Russia's investment in China is in recession, the investment amount are falling down for years, however they has good economic relationship and trade cooperation between China and Russia. The development difference both in before and after formed a disharmonious relationship. Russia's investment in our country are in the relatively small size, and focuses on manufacturing and construction. The types of Russia's foreign direct investment in China are mainly export-oriented, and other mainly

invest are in manufacturing industry with low technology. As for the high-tech industry, the investment ratio is very low. So, the technology and production efficiency of inside and outside companies in China is difficult to raise. The low foreign exploitation degree of Russia to some extent hindered the strategic upgrading of economic as well as the trade cooperation between China and Russia. From a long-term point of view, investment cooperation between China and Russia need to raise the proportion of the investment of high-tech industries, try to reduce the proportion of low technology industry investment, especially in energy-intensive industries, so as to improve the structure of Russia's foreign investment in China and fund utilization degree; At the same time, they should promote the advanced management experience and technology innovation in the bilateral exchanges between China and Russia , enhance the level of the development of horizontal economic trade between two countries.

On the other hand, only to realize mutual investment and cooperation between two countries, the two countries can achieve the goal of win-win, therefore, our country also should increase funding for the project investment, realize the implement trade product diversification and differentiation and expand bilateral economic trade. Our country should choose northeast area as first choice for Russia's direct investment, vigorously develop the investment cooperation of the eastern part of Russia and northeast part of China. And we also need to expand the investment and cooperation in the deep processing of resource products and technology areas, and apply the mainstream approach to China's direct investment in Russia as soon as possible. In a word, China's position on the Russian direct investment should be up to a strategic

height. Practice has proved that the most important factor to promote the continuous growth of economic trade is the investment and cooperation between two countries in strengthening capital and talent resources in the field of production.

Fourth, the government need to speed up the adjustment and upgrading of industrial structure in China.

China's exports to Russia are mainly in labor-intensive products consisted by textiles and light industrial products, however the proportion of the less competitive export capital and technology-intensive products is low. In order to further expand the trade market between China and Russia and provide a broader space for the development of economic trade in China, it is necessary to speed up the optimization and upgrading of China's industrial structure and improve the status of capital and technology intensive industry in our country's trade and development speed. It can be advised from two aspects: one is to promote the development of leading industry, and create industry competitive advantages. The development of economic trade cannot leave the development of new industry and leading industry, different countries have many comparative advantages, they take participation in international division in production on the international level to create the leading industry of the country and realize the product of mass production, reduce production cost, then create the competitive advantage in the industry in international market, so as to promote the development of economic trade. As the global economic integration and the national high and new technology industry competition intensifies, we need to speed up the change of current situation that the industrial structure in our country lags behind and

the speed of upgrading is slow, and we also need to put the strategy into practice of speeding up the implementation of professional collaboration with industrial integration in the local area, and choose some manufacturing industry which has growth potential to invest for the aim of upgrading the manufacturing industry structure. At the same time, our country will establish high and new technology industry as the leading industry in economic development in the future [76]. Thanks to the support from the national policy and guidance, it becomes possible to form high-tech industrial clusters and cultivate some high-tech export companies with a batch of internationally competitive advantage, and help them to enter the international market.

The second is to speed up the low value-added products production and processing trade transformation, promote the upgrading of the industrial structure. The results indicated that the most economic development degree are to carry out the processing trade between different countries, it has become an important form in international trade. At present, although the development of the processing trade between China and Russia is smooth, but it is still in the primary stage, where the high added value and technology content of the processing trade proportion is low and still is given priority to low value-added products of processing trade. These problems lead to the development of the processing trade between China and Russia to stay in the lower level. What's worse, it hindered the domestic industrial upgrading. Therefore, China must develop high value-added products of processing trade to stimulate the domestic industry for the aim of entering the international trade market. And the government should vigorously support the production of high value-added and products with high technology content

in high innovative industry and build up some encouraging policies to promote enterprise to introduce technology and constantly blaze new trails. Then pass the advanced science, technology and management experience to some associated enterprises, which performed as a leading role. In addition, the business scope of the processing trade in all kinds of enterprises should be more wide, business types should be more abundant, not only just stay in pure processing stage, but more tend to researching, developing, designing, brand, service and so on. And relying on the product's uniqueness and monopoly, we can get larger economic trade revenues.

4.1.2 Some recommendations on company level to improve trade relationship between China and Russia.

Firstly speaking, the company need to promote industrial agglomeration and realize specialized production.

If in the same industry enterprise can form industrial concentration and realize large-scale production and management, it can make the enterprise to reduce cost greatly, at the same time to develop economic trade between the two countries and have differentiated products, to bring the welfare of the win-win effect between China and Russia for the participating countries in trade. If we can make the function of scale of production enterprises in product trade between China and Russia, on the basis of division of labor cooperation, then will get benefits of resulting technology trade. Due to the differences between enterprises, to achieve economies of scale and to maximize the profit, production enterprise should choose a different mode of production and operation according to the size of the oneself. For smaller companies, they should try to

improve the level of production technology, given priority to those products with comparative advantage, and expand the production scale to attract consumers because of the differences of products, then occupy the share of market in the two countries. However, as for large and medium-sized enterprises with a certain scale of production, they can produce a certain kind of specializing products through the international division of labor cooperation, on the basis of the original production technology and in a natural environment, so as to achieve the product yield and profit growth. What's more, the enterprise scale operation of the two countries can largely increase the bilateral economic trade. For some of the same industry enterprises, the existing trade patterns and professional technology is its strengths. so the industry gathering together can make the industry scale accumulation and then form a certain advantage. The process of development of the modern economy indicates that a number of enterprises with the industry agglomeration in the same city or region, the scale of the whole industry will be more prominent. In view of the geographical and industry advantages of China and Russia, the two countries enterprises can gradually formed the industrial agglomeration effect through the economic and trade cooperation projects, thus form the internationalization of professional production line, so that China and Russia can obtain more profits and the two countries export enterprises can enter more and more, larger and larger market [75]. In the process of realizing the development of industrial agglomeration, it can also make the whole industry to achieve the requirement of the economies of scale. In the meanwhile, the efficiency of national economic operation can also increase.

Secondly speaking, the company should improve the added value of products and form the brand competitive advantage.

At this stage, the commodity structure of economic trade between China and Russia is still mainly by vertically differentiated products. China's basic position in production and processing industrial chain is upstream, the value of products is low and product's competitiveness is not strong, that's why it is difficult for China to form the brand competitive advantage. Different level of the different scale of production and management can meet the demand of consumer in domestic and other countries in the international trade market to a large extent, then formed in horizontal difference product trading activities. To improve the level of enterprise's production in economic trade between China and Russia, we can consider to make efforts from the following aspects: The first one is to speed up the development of new and high technology industries through technology spillover effect to shorten the technology gap between China and Russia, improve product quality and added value and enhance the international competitiveness of products, and then actively promote the level of differentiated products between China and Russia international trade; The second one is to strengthen the brand effect, creating international well-known brand can let more consumers have the product identity and sense of trust for the products, so as to make the product sales improved, finally emerge from many other homogeneous product. In an increasingly competitive global trade environment, enterprises should innovate new technologies, new products, and form the brand differences with other homogeneous product. What's more, they need to spend full time in the designing, researching for products and the

development and quality of service. They can strive for an aim that independent brand advantage has the relative monopoly and gain more trade profits. In the commodity trade between China and Russia, they can meet the needs of consumers from a variety of perspective, actively create many international well-known brands which can attract different levels of consumers. It plays a significant role in promoting the development of bilateral trade between China and Russia.

Thirdly speaking, the company need to increase the capital investment and encourage technological innovation.

To fundamentally improve the industry structure and then raise the overall level of economic trade in our country, we need the enterprise and society to constantly cultivate professional talents, strengthen scientific and technological progress and encourage technology innovation. Chinese enterprises should first invest a lot of money on the professional personnel training, provide the operation of the advanced equipment for the workers and perfect the internal staff training mechanism. Setting up the various preferential policies and incentives can attract more talents to join to the team of enterprise technology innovation; Secondly, enterprises should invest more in independent research and development activities, change the passively accepting the technology to actively in technical innovation through independent research and development, and intensify the development of new products, increase the added value of products. In a word, we need to improve the level of the development of economic trade in our country from the technical level.

4.2 Some recommendations to improve trade relationship between ZheJiang Province in China and Chelyabinsk in Russia

In the last part of my paper, I will talk about the economy in my hometown as well as the economy I knew in these two years in Chelyabinsk.

ZheJiang province, is a province which located in the southeast coast of China. Its eastern part is near to China's eastern sea, and its northern part is near to the Yangtze river delta border. The corner of northeast ZheJiang is close to the city of Shanghai, the west is connected to AnHui province and JiangXi province, and the south is connected to FuJian province. The largest river in ZheJiang is the QianTang river, because of the winding river, it is also known as ZheJiang. The capital of ZheJiang province is HangZhou. ZheJiang is one of the most economically active provinces in China, in particular, the developed private economy has formed the distinctive ZheJiang Economy. By 2013, per capita disposable income in ZheJiang was the highest in China for last 21 years [77]. The Yangtze river delta city cluster, which is composed of ZheJiang, JiangSu, AnHui and Shanghai, has become one of the world's six major cities. In recent years, ZheJiang province has firmly established and implemented the concept of new development, and the economic and social development of the whole province has maintained steady. Currently, ZheJiang province is running fast on the track of dry in reality and leading the way, and has been in the new direction of historical development.

In short, I learned a lot about the city during my two years at Chelyabinsk. So, I'm going to give you a brief overview of Chelyabinsk. Chelyabinsk is a city in Russia,

Chelyabinsk state administrative capital, is located in the Ural Mountain and Miass River upstream. The city extends along the river valley, which is more than 30 kilometers long and more than 10 kilometers wide, with a total area of 486 square kilometers. The name of the Chelyabinsk is the site of a fort that was built in 1736 and became a settlement in 1781 and then became a regional political center. At the same time, Chelyabinsk is the starting point of the Trans-Siberian railway, and there are five railway lines, which made it become an important transport hub for Russia.

In my opinion, the economy in Chelyabinsk relays on industry and agriculture. The main industrial sectors of Chelyabinsk are black and non-ferrous metallurgical industries (Magnitogorsk, Chelyabinsk, Zlatoust), machine manufacturing and metal processing industry (mining and metallurgical equipment production, machine tools, tractors, automobiles, trolleybuses, railways and agricultural machine production), chemical industry (chemical fertilizer, synthetic resin, paint), mining (mining of black and non-ferrous metals, magnesite, lignite, mineral materials), light industry, food industry and building materials production. In addition, there is the power industry: The state of Chelyabinsk has a power station in the state of Troysk, South Ural and Chelyabinsk. The main industrial center of Chelyabinsk are Chelyabinsk, Magnitogorsk, Zlatoust, Mias, Kopeysk, Korkino, and Troerzick. As for the agriculture in Chelyabinsk, it is based on growing food crops and actively developing the dairy farming for the purpose of dairy meat. According to the data from January 1 in 1997, the state has 6,294 farms, with an average of 59 hectares of land. And the newest data of farms is about 6408.

I searched from Internet and then find some data from the official website.

The first form is about the GDP in Chelyabinsk in 2017 (Table 4.1).

Second one is about the GDP in 2012-2016 (Table 4.2).

Table 4.1 – GDP in 2017

GDP (Local currency) (current price)	79.41 trillion
The population (the number of people)	145 million
Land area (square kilometers)	16.3769 million
GDP (Present price \$)	1.96 trillion
Annual GDP growth rate (%)	0.74
CPI inflation rate (%)	7.93

Table 4.2- GDP from 2012 to 2016

Years	GDP (Local currency, current price)	Per capita national income (current price)
2016	74.41 trillion	13200
2015	66.76 trillion	13900
2014	62.60 trillion	12700
2013	54.59 trillion	10400
2012	45.17 trillion	9880

From this table, we can see that GDP and per capita national income have increased to some extent from 2012 to 2014, although the amount of increase is not so clear. But from 2014 to 2016, the per capita national income decreased.

The last table is about other index from 2013 to 2017, it can show the economy in Chelyabinsk more clearly.

In 2017, the index became better. Compared to previous years, the amount of increase is not very clear. So maybe in that time, Chelyabinsk City needs to bring some other international trades for the aim of developing economy. For instance, ZheJiang province can play a significant role in this way.

Table 4.3- other index from 2013 to 2017

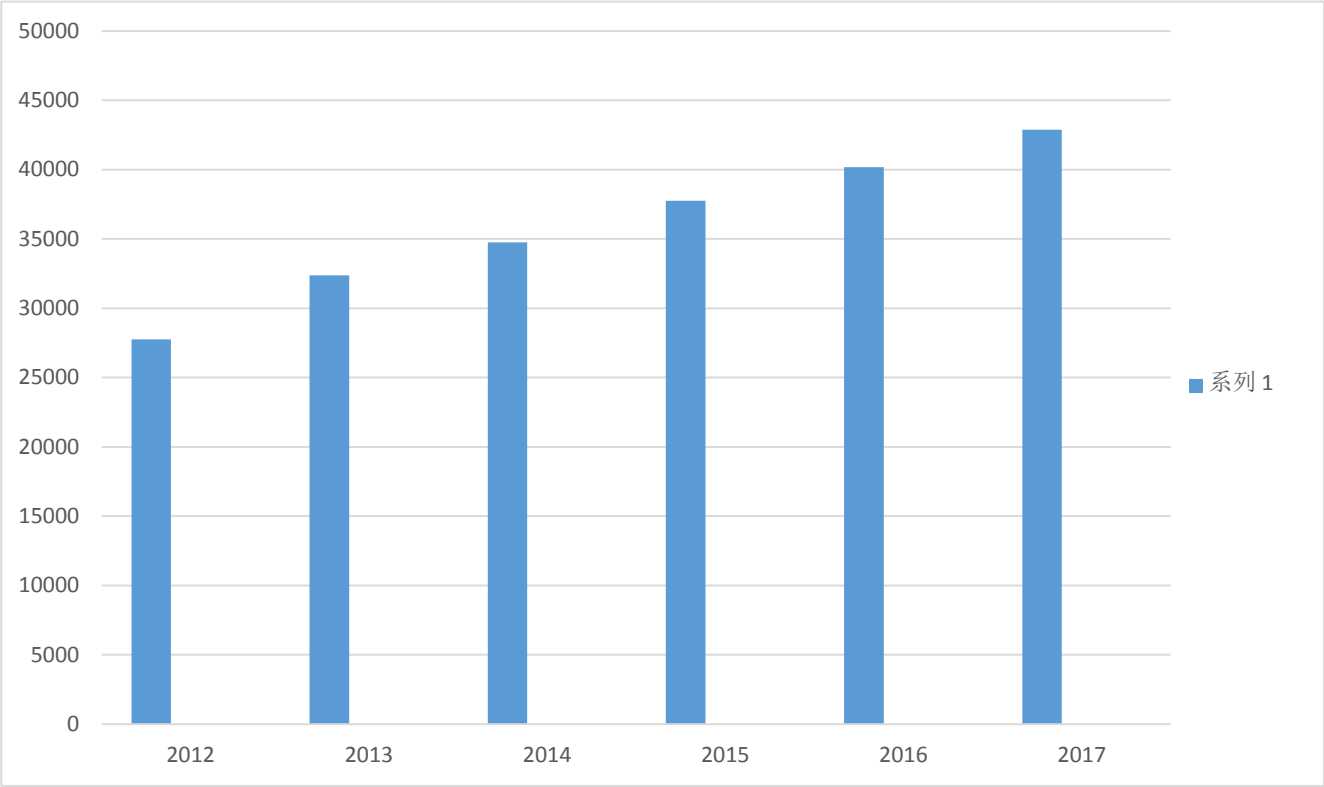
Index	2013	2014	2015	2016	2017
Per capita national income growth rate(%)	3.35	0.92	2.44	0.6	-----
Annual growth rate for household-consumption(%)	10.31	19.67	8.97	4	-----
CPI inflation rate (%)	6.86	8.44	5.07	6.76	7.83
household final-consumption expenditure (dollars)	738.192 billion	968.554 billion	968.841 billion	1.09 trillion	-----
Total domestic savings (dollars)	461.448 billion	574.667 billion	670.499 billion	596.772 billion	-----
Gross national income (dollars)	1.43 trillion	1.74 trillion	1.95 trillion	2.02 trillion	1.79 trillion
national total savings (dollars)	479.222 billion	497.410 billion	537.816 billion	509.692 billion	386.216 billion
Per capita GDP growth rate (%)	4.29	4.29	3.03	1.09	-1.14

From this table, we can find that from 2013 to 2015, most of the data are good, and

they all increased in the next year. But after 2014, the economy was not very optimistic because of the global financial crisis.

The information economy in ZheJiang province is growing at an innovative rate, in the first quarter, the core industry of the information economy added 858.42 billion yuan, and the year-on-year growth is 16.5%.

Let's have a overview about GDP in ZheJiang province from 2012 to 2017 (Picture 4.1).



Picture 4.1 - GDP in ZheJiang

From this table, we can see that the GDP in ZheJiang is increasing steadily year by year. And the most important economy is the information economy. Fast growth, good structure, good performance and strong motivation, the information economy is becoming a new driver of ZheJiang's economy, leading the economic transformation and upgrading of ZheJiang province.

In the first quarter of this year, the value added of the industrial manufacturing industry in the information economy was 15.4 percent, It is growing faster than high-end equipment manufacturing, fashion manufacturing, environmental manufacturing and health manufacturing in the eight trillion industries. The software business revenue was 89.22 billion yuan, up 19.2% year on year, up from 6.3 percentage points in China. The high growth of the information service industry has led to the development of leading enterprises. In the first quarter, the software business revenue of the top 10 enterprises in the province reached 425.3 billion yuan, up 43 percent year-on-year. Among them, Internet information services, such as AliBaBa and Netease (HangZhou), are the most important, their profits were 201.8 billion yuan, up 61.4 percent year on year. Zhejiang is accelerating the innovation of manufacturing and the Internet, and the new genes of the Internet are injected into the key areas and key areas of the real economy, such as traditional advantage industries, big industrial counties, specialty towns and industrial clusters [75].

So I think, the information economy can be promoted into Chelyabinsk, especially the way of shopping online, just like Taobao. In ZheJiang, Yiwu, there is a village called TaoBao Village, where it is the main production base of TaoBao products. It is known to all that shopping on TaoBao is full of convenience. Taobao in ZheJiang has an integrated e-commerce platform, a complete payment system, reasonable trading guarantee system, convenient trade communication, unique logistics gateway and integrated advertising sales system. Taobao provides the seller with a free information management, transaction payment instrument and logistics gateway trading platform,

what's more, it solved the problem of Chinese trust in selling goods on the Internet successfully. In other words, TaoBao can provide many employment opportunities no matter how old you are. For buyers, shopping on Taobao can also bring a lot of benefits. But during my two-year-studying life in Chelyabinsk, I find that shopping online is not very popular. I asked some Russian friends about the reason, they told me that because the buyers bought something before, but they didn't receive the products at last; or the products they received was not to their satisfactory. In fact, nowadays in China, shopping on TaoBao also will bring such similar problems. However, the government will enact relevant laws to stop this bad trade phenomenon. So in Chelyabinsk, the promotion of TaoBao can boost economic growth. That's why I want to promote TaoBao into Chelyabinsk.

What's more, there are some small cities in ZheJiang which are good at making crystal crafts. These kind of crafts have the advantages of low cost, convenient transportation, and they can be used for decoration.

So I think this product can be export to Russia, and Russia people will be fond of them like matryoshka doll.

So what should output from Chelyabinsk to ZheJiang. It is reported that the metallurgical industry remains the main economic area of the region, and technology intensive technology is needed to promote its development to reduce product costs. So I think, the metallurgical industry can promote in ZheJiang.

The metallurgical industry is Russia's traditional industrial sector, because Russia is rich in iron ore, and ferrous metallurgy is the backbone of the industry. As I know, the

metallurgical industry in Russia is divided into two categories: ferrous metallurgy and non-ferrous metallurgy. Large metallurgical companies include Magnitogorsk, Crivoro, New Lebez, West Siberia, Cherlebovitz, Chelyabinsk, etc. One of the largest is the magnusogorsk steel base. According to the data, the profits and interest rates of the black and colored metallurgical sectors are higher than the entire industry. Russia's ferrous metals industry has industries such as aluminum, nickel, lead, zinc and copper. However, in the metallurgical industry, the smelting industry of tin, antimony and mercury is not developed, and Russia is the country with the shortage of non-ferrous metals.

Generally speaking, ZheJiang is weak in the metallurgical industry. So, for the trade cooperation between Chelyabinsk and ZheJiang, metallurgical industry is a good chance for two cities.

In spite of the metallurgical industry, the forest, wood processing and pulp and paper industry in Russia is also a great opportunity to be brought in ZheJiang. Russia is the most forested country in the world, it provides a solid foundation for the development of the forest, wood processing and pulp and paper industries. So it is also a traditional industrial sector in Russia. The sector accounts for 4.3 percent of the total industrial production of fixed assets, it is only 2.5 percent of the light industry. In Russia, the main parts of forestry, wood processing and pulp and paper industry are: forest logging industry, timber processing industry and paper pulp industry.

However, the forest in ZheJiang is not a great amount, which cause wood processing and pulp and paper industry decreased. There is no doubt that Chelyabinsk

can promote its wood processing and pulp and paper industry to ZheJiang.

In brief, ZheJiang can promote information economy to Chelyabinsk; Chelyabinsk can promote metallurgical industry and wood processing and pulp and paper industry. In other words, two cities can complement each others' strengths and weaknesses to promote economic development in both cities.

Summary of fourth chapter

In the last chapter, I give some modest recommendation to improve trade relationship between China and Russia, and also between ZheJiang Province in China and Chelyabinsk in Russia.

CONCLUSION

I talked about the characteristics of trade commodity structure between China and Russia, and then take the agriculture market structure as an example from the influencing factors of agriculture market structure between China and Russia in theoretical part to practical part, including the capital labor ratio, the level of economic development between two countries and the foreign direct investment. What's more, I also talk about the influencing factors in national characteristics and industrial characteristics. The most important part is the recommendation in the fourth chapter. Because of the material and research in previous three chapters, the recommendation can be more practical.

After knowing about the influencing factors of agriculture market structure between China and Russia, and also with the help from two governments in two country, the agriculture market structure can be improved, which is the point of developing the trade between China and Russia.

If we can make the function of scale of production enterprises in product trade between China and Russia, on the basis of division of labor cooperation, then will get benefits of resulting technology trade. Due to the differences between enterprises, to achieve economies of scale and to maximize the profit, production enterprise should choose a different mode of production and operation according to the size of the oneself. For smaller companies, they should try to improve the level of production technology, given priority to those products with comparative advantage, and expand the production scale to attract consumers because of the differences of products, then occupy the share

of market in the two countries.

Considering more, with the advantage of Russian enterprises, the investment strategy of buying shell operation is carried out. At present, Russia has many large and medium-sized state-owned and private enterprise management benefit is bad, old technology and equipment, product and market demand does not adapt, but update the transformation and upgrading and insufficient funds. For such Russian companies, China's powerful companies can take the place of the investment strategy of the shell-buying. On the one hand can save the new enterprises of all kinds of complicated procedures, enjoy various related to treatment of local enterprises, still can make full use of the Russian enterprise easy to deal with a Russian local government authorities favorable conditions; On the other hand, we can give full play to China's advantages in capital, application technology and management, and make enterprises stronger and stronger.

LIST OF REFERENCE

1. Helpman, E. Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition, and the International Economy / Elhanan Helpman, Paul R. Krugman. – MIT Press, 1985. – 282 p.
2. Dunning, J.H. Globalization, Trade and Foreign Direct Investment / J.H.Dunning. – Oxford : Pergamon : Elsevier, 1998.
3. Markuson, James. R. Trade in Goods and Factors with International Differences in Technology / James. R. Markuson, Lars E.O. Svensson // International Economic Review, 1985 (26). – P. 175–192.
4. Balassa, Bela. Comparative Advantage, Trade policy and Economic Development / New York University Press, 1989.
5. Paul Samuelson. International Trade and the Equalization of Factor Prices / 1948.
6. Chen Hong, The Research on the Relationship between China's Foreign Trade Structure and Industrial Structure / China // A Doctoral Thesis in JiLin University, 2011.
7. Guan XueLing, The Analysis of Further Improving the Conditions for Economic and Trade Cooperation between China and Russia / China, 2012.
8. What is the development trend of decoration industry in 2007. (2007-3-25). <http://zhidao.baidu.com/question/22530951.html>.
9. China Industry Newspaper. 2007 / From March 2007 on the log export duty will be greatly raised by Russia. (2007-3-30).
10. Duan Xinfang, Li Jianquan, Zhou Yu, 2008. China-Russian trade and Russian

processing technology / Beijing // China Building Material Industry Publishing House.
-P. 76-77.

11. FSC. 2008. Trade Management Certificates by Continent (2008-01-15).
[2008-1-17]. http://www.fsc.org/en/whats_new/fsc_certificates/certificate_lists.

12. Gao Chengxing, Zhu Lin an, Hung Weiping. 2001. International trade course
(2nd edition). Beijing : China Renmin University Press.

13. Ministry of Construction of the People's Republic of China. 2005. China's
resident target to build a moderately prosperous society in all respects. China industry
research net. (2005-6-27). [2007-10-20]. <http://www.chinairn.com/>.

14. Tax168.net. Russia will promote log export duty again from July of this year.
(2007-05-22). <http://www.tax168.net/>.

15. Yang Hongqiang. 2005. Research on comparative preponderance of China's
products in international trade market / Nanjing // A Dissertation of Master Degree in
Nanjing Forestry University.

16. Baldwin. Robert E. 1971, "Determinants of the Commodity Structure of US
trade" / American Economic Review, Vol. 61, No.1, 126-146

17. Grossman G.M. and Helpman E, 1995, "Technology and Trade" / in Handbook
of International Economics // Vol.3, Grossman, G.M and Rogoff, eds. Amsterdam:
North Holland.

18. Grubel H. and Lloyd. 1975, Intra-industry Trade / The Theory and
Measurement of International Trade in Differentiated Products // London:Macmillan.

19. Helpman E, 1999, "The Structure of Foreign Trade" / Journal of Economic

Perspective Vol.13.

20. Helpman. E. and Krugman. P. R. 1985, Market Structure and Foreign Trade / Cambridge, MA : The MIT Press.

21. Hirschman, Albert O, 1943 “The Commodity Structure of World Trade” / Quarterly Journal of Economics.

22. Moore, Lynden, 1985, The Growth and Structure of International Trade since the Second World War / Sussex // Wheat sheaf Books LTD, New Jersey.

23. Balassa. B. 1979 : Intra-Industry Trade and the Integration of Developing Countries in the World Economics in H. Gierseh (ed), On the Economics of Intra-Industry Trades posium, Thbingen.

24.Lall, Sanjaya and Albaladejo, Manuel,2004,China’s Competitive Performance / A Threat to East Asian Manufactured Exports // World Development.Vol.32.

25. Bobo Lo.A Fine Balance–The Strange Case of China-Russian Relations / Institute France Relations Internationales, 2005.

26. Kerr. David. The China-Russian Partnership and US Policy Toward China and North Korea / From Hegemony to Concert in Northeast Asia // International Studies

27. Shiping Tang. Economic Integration in Central Asia: The Russian and Chinese Relationship / Asian Survey,2000.

28. Simon Clarke. Post-socialist Trade Unions : China and Russia / Industrial Relations Journal, 2005.

29. V.S. Myasnikov. Russia and China : New Horizons of Strategic Partnership / World Forum on China Studies, 2005, (3) : -P. 32-36

30. Weede, Erich. China and Russia : On the Rise and Decline of Two Nations / International Interactions, 2003, (4) : -P. 66-69
31. Yang yang. Development and Strategy of China-Russia Bilateral Trade: Business Economy / Trade Economy, 2010.
32. Arrow, Kenneth. The Economic Implications of Learning by Doing / Review of Economic Studies // 1962 (29): -P. 155-173.
33. Redding, G and J. Van Reenen. Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries / IFS Working Paper // Institute for Fiscal Studies, London, 2000.
34. Balassa, B. Exports and economic growth: Further evidence / Journal of Development Economics, 1978 (5): -P. 181-189.
35. Bardhan, P.K. Economic Growth, Development and Foreign Trade. 1970.
36. Barro, Robert J. Government Spending in a Simple Model of Endogenous Growth / Journal of Political Economy, 1990 (98): -P. 103-125.
37. Barro and Lee. International Comparisons of Educational Attainment / Journal of Monetary Economics, 1993 (32): -P. 363-394.
38. Barro, R. and Sala-I-Martin, X. Economic Growth / New York, Mc Graw Hill Inc, 1995a: -P. 251-265.
39. Barro, R. and Sala-I-Martin, X. Technology Diffusion, Convergence and Economic Growth / NBER Working Paper. 1995b. No. 5151.
40. Becker, Gary S & Murphy, Kevin M. The Division of Labor, Coordination Costs and Knowledge / The Quarterly Journal of Economics // MIT Press, 1992 (4): -P.

1137-1160.

41. Benhabib, J and M Spiegel. The Roles of Human Capital in Economic Development Evidence from Aggregate Cross-Country Data / Journal of Monetary Economics, 1994 (34): -P. 143-173.

42. Borensztein, E., Gregorio J. D. & Lee. How Does Foreign Direct Investment Affect Economic Growth? / Journal of International Economics, 1998 (45): -P. 115-135.

43. Caselli, F. and Coleman, J. Cross-Country Technology Diffusion: The Case of Computers / NBER Working Paper, 2001, No.8130.

44. Caves, R,E. International Corporations: The Industrial Economics of Foreign Investment / *Economica*, 1971 (38): -27 P.

45. Coe, D. E. and E. Helpman. International R&D Spillovers / *European Economic Review*, 1995 (39): -P. 859-887.

46. Coe, D.E. , E. Helpman and A. Hoffmaister / North-South R&D Spillovers. *Economic Journal*, 1997, 107: -P. 134-149.

47. Cohen, W. and D. Levinthal. Innovation and Learning: The Two Faces of R&D / *Economic Journal*, 1989 (99): -P. 569-596.

48. Davis, D.R. Intra-industry Trade: A Heckscher-Ohlin-Ricardo Approach / *Journal International Economics*, 1995 (39): -P. 201-226.

49. Dermot Leahy and Peter Neary. R&D Spillovers and the Case for Industrial Policy in an Open Economy / *Oxford Economic Papers*, 1999 (51): -P. 40-59.

50. Dixit, A. and Stiglitz, J., Monopolistic Competition and Optimum Product Diversity / *American Economic Review*, 1977 (67): -P. 297-308.

51. Dollar, D. Technological Innovation, Capital Mobility, and the Product Cycle in North-South Trade / *American Economic Review*, 1986 (76): -P. 177-189.
52. Eaton, J and S Kortum. Trade in Ideas: Patenting and Productivity in the OECD / *Journal of International Economics*, 1996 (40): -P. 251-278.
53. Eaton, J and S Kortum. Engines of Growth: Domestic and Foreign Sources of Innovation / *Japan and the World Economy* // 1997 (40): -P. 251-259.
54. Eaton, J and S Kortum. International Patenting and Technology Diffusion: Theory and Measurement / *International Economic Review*, 1999 (40): -P. 537-570.
55. Either, Wilfred J. National and International Returns to Scale in the Modern Theory of International Trade / *American Economic Review*, 1982 (72): -P. 389-405.
56. Feder, G. On Exports and Economic Growth. *Journal of Development Economics* / 1982 (12): -P. 59-73.
57. Findlay, R. Relative Backwardness, Direct Foreign Investment, and the Transfer of Technology / A Simple Dynamic Model. *Quarterly Journal of Economics* // 1978 (62): -P. 1-16.
58. Grossman G. M. and Helpman E. Comparative Advantage and Long-Run Growth / *American Economic Review*, 1990 (80): -P. 796-815.
59. Grossman G. M. and Helpman E. Innovation and Growth in the Global Economy / Cambridge, MA: MIT Press, 1991a: -P. 212-230.
60. Grossman G. M. and Helpman E. Quality Ladders in the Theory of Growth. *Review of Economic Studies*, 1991b (58): 43-61.
61. Grossman, G.M., and E. Helpman. Technology and Trade / In G. Grossman and

K. Rogoff, eds.// Handbook of International Economics, vol. 3, 1995: -P. 1279-1337.

62. Hakura D.S. and Jaumotte.F. The Role of Inter-and-Intraindustry Trade in Technology Diffusion / IMF Working Paper, 1999, No. 99/58.

63. Heckscher, Eli F., 1919, The Effect of Foreign Trade on the Distribution of Income / Economics, 1977 (91): -P. 221-240.

64. Mansfield. Edwin, Schwartz, Mark and Wagner, Smuel. Imitation Costs and patents: An empirical study / The Economic Journal, 1981 (91): -P. 907-918.

65. Markusen, J.R. and L.E.O. Svenson. Trade in Goods and Factors with International Differences in Technology / International Economic Review, 1985 (26): -P. 175-192.

66. Meijl, H.V and F.V. Tongeren. Trade, Technology Spillovers, and Food Production in China / Welteirtschaftliches Archiv, 1998 (134): -P. 423-449.

67. Narula. R. R&D Collaboration by SMEs: New Opportunities and Limitations in the Face of Globalization / Technovation, 2004 (24): -P. 153-161.

68. Ohlin, B. 1933. Interregional and International Trade / Cambridge: Cambridge University Press, revised edition, 1967.

69. Posner, M. International Trade and Technical Change / Oxford Economic Papers, 1961 (13): -P. 323-341.

70.Redding,Stephen.TheLow-skill,Low-Quality Trap: Strategic Complementarities between Human Capital and R&D / Economic Journal, 1996 (106): -P. 458-470.

71. Ricardo, D. 1817. The Principle of Political Economy and Taxation / London, Gaernsey Press. 1973.

72. Romer P.M. Increasing Returns and Long-Run Growth / Journal of Political Economy, 1986 (94): -P. 1002-1037.
73. Romer P.M. Endogenous Technological Change / Journal of Political Economy, 1990 (98): -P. 71-102.
74. Romer P.M. Two Strategies for Economic Development: Using Ideas and Producing Ideas / In Proceedings of the World Bank Annual Conference on Development Economics // Washington, D.C. World Bank. 1992.
75. Romer P.M. The Origins of Endogenous Growth / Journal of Economic Perspectives, 1994 (8): -P. 3-22.
76. Sachs, J. and Warner A. Economic Reform and the Process of Global Integration / Brookings Papers of Economic Activity, 1995 (1): -P. 1-118.
77. Data after calculating in 2009-2015. <http://comtrade.un.org/>