

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Diploma Thesis

**RUSSIAN AGRICULTURAL TRADE PERFORMANCE
AND ITS COMPARATIVE ADVANTAGE
DEVELOPMENT**

Author: Elza Kondakchian

Supervisor: doc. Ing. Luboš Smutka, Ph.D

© 2016 CULS Prague

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Elza Kondakchian

Economics and Management

Thesis title

RUSSIAN AGRICULTURAL TRADE PERFORMANCE AND ITS COMPARATIVE ADVANTAGE DEVELOPMENT

Objectives of thesis

The main aims of this research work are to specify changes in territorial structure, commodity structure, trade and unit values, comparative advantages in agricultural trade policy, food safety and food security policies and identify the current positions of Russian agricultural sector on the international trade market and its future development possibilities according to the modern trade relations with the European Union.

Methodology

- 1) Objectives specification
- 2) Basic literature overview specification
- 3) Data collection process
- 4) Quantitative analyses
- 5) Syntheses of the most relevant results coming from the analytical part of the thesis and their discussion
- 6) Specification of relevant conclusions related to objectives

The proposed extent of the thesis

60 – 80 pages

Keywords

Russia, agriculture, trade, structure, commodities, territories, comparative advantage, value, development

Recommended information sources

- ISHCHUKOVA, N. – SMUTKA, L. Revelead comaprative advantage: product mapping of the Russian agricultural exports in relation to individual regions. 2014, ACTA SCIENTIARUM POLONORUM Oeconomia roč. 13, č. 1, p. 45–61, ISSN: 1644-0757.
- ISHCHUKOVA, N. – SMUTKA, L. The Formation of Russian Agrarian Trade Structure: Inter-industry vs. Intra-industry Trade Activities. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 2014, roč. 62, č. 6, s. 1293-1299. ISSN: 1211-8516.
- OBSTFELD, M. – KRUGMAN, P R. *International economics : theory and policy*. Boston: Pearson/Addison Wesley, 2006. ISBN 978-0-321-53035-6.
- SMUTKA, L. – ŠPIČKA, J. – ISHCHUKOVA, N. – SELBY, R. Agrarian import ban and its impact on Russian and European Union agrarian trade performance. Agric. Econ. – Czech
- SMUTKA, L. World agricultural production, consumption and trade development (selected problems : (position of the European Union in the global agricultural market). Prague: Powerprint, 2012. ISBN 978-80-87415-45-0.
- SVATOŠ, M. – SMUTKA, L. – ISHCHUKOVA, N. The position of agriculture in the Russian Federation – the last two decades development overview. Agricultural Economics (Zemědělská ekonomika), 2014, roč. 60/2014, č. 11, s. 489-502. ISSN: 0139-570X.
- WTO. Report of the working party on the accession of the Russian Federation to the World Trade Organization, WT/ACC/RUS/70, WT/MIN(11)/2, 17 November 2011
-

Expected date of thesis defence

2015/16 SS – FEM

The Diploma Thesis Supervisor

doc. Ing. Luboš Smutka, Ph.D.

Supervising department

Department of Economics

Electronic approval: 9. 3. 2016

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 9. 3. 2016

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 21. 03. 2016

Declaration

I declare that I have worked on my diploma thesis titled "Russian agricultural trade performance and its comparative advantage development" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any person.

In Prague on 30.03.2016

.....

Elza Kondakchian

Acknowledgement

I would like to express the deepest appreciation to my scientific supervisor Ph.D. Luboš Smutka for all his advice, valuable recommendations and continuous support during my work on this thesis.

I would also like to thank the academic staff of the Faculty of Economics and Management at the Czech University of Life Sciences for their help and support.

Agrární zahraniční obchod Ruska a vývoj jeho komparativních výhod

Souhrn

V současné době si Ruská federace stále více uvědomuje důležitost konkurenceschopnosti agrárního obchodu. Existují proto velmi pádné důvody. Například ruský vstup do WTO v roce 2012, uvalení odvetných sankcí na agrární importy vůči Evropské unie, Spojeným státům americkým a dalším zemím a dale pak zejména nastavení priorit týkajících se nově formulované agrární a obchodní politiky Ruské federace. Vývoj v oblasti objemu agrárního obchodu a jeho konkurenceschopnost představují z pohledu Ruské federace (RF) v současné době velmi aktuální téma.

Cílem zpracované diplomové práce je identifikovat změny v teritoriální a komoditní struktuře agrárního a potravinářského obchodu RF. Dále jsou specifikovány a zejména identifikovány komparativní výhody zejména ve vztahu k zemědělské a obchodní politice, dale pak ve vztahu k politikám bezpečnosti potravin a potravinové bezpečnosti. Rovněž je identifikována současná pozice ruského zemědělství ve vztahu k mezinárodnímu trhu. Práce rovněž specifikuje některé možnosti týkající se budoucího vývoje zemědělství Ruska. Zpracovaná diplomová práce zdůrazňuje potřebu realizace racionálních mezinárodně-obchodních aktivit a to zejména prostřednictvím literární rešerše děl předních ekonomů v minulosti publikovaných.

Vlastní analytická část práce je založena na použití široké řady statistických a ekonometrických nástrojů a metod. Výsledky výzkumu identifikují nejvýznamnější produktové skupiny/komodity a trendy, které jsou spojeny s existencí a vývojem komparativních výhod agrárního obchodu RF (obiloviny, olejnin, živočišné a rostliné tuky a oleje, ryby a mořské produkty atd. Konkurenceschopnost (dle Lafay indexu) ruských agrárních exportů (2014) je zjevná zejména ve vztahu k Turecku, Kazachstánu, Jihokorejská republika, Azerbájdžán a Írán. V neposlední řadě je identifikován dopad v současné době Ruskem uvalených sankcí na import agrárních produktů z řady zemí na vývoj v oblasti konkurenceschopnosti ruského zemědělství. Sankce zredukovaly zejména hodnotu agrárních importů a taktéž vedly k navýšení produkčních kapacit RF.

Klíčová slova: Rusko, zemědělství, obchod, komoditní struktura, teritoriální struktura, komparativní výhody, hodnota, vývoj

Russian agricultural trade performance and its comparative advantage development

Summary

Today Russia clearly understands the importance of the agricultural sector competitiveness development. There are some compelling reasons. For example, Russian accession in 2012 to the World Trade Organization and recent retaliatory sanctions affecting trade between Russia and especially western countries, new directions and priorities of Russian agricultural and trade policy.

Thus the agricultural trade performance of Russia and possibilities of its comparative advantage development are sufficiently urgent problems.

The aims of this research work are to specify changes in the territorial structure and commodity of Russia, comparative advantages in the agricultural trade policy, food safety and food security policies and identify the current positions of Russian agricultural sector on the international trade market and its future development possibilities.

The Diploma Thesis explains the importance of the rational international trade activities through the historical review of the economists' works from different periods of time. Practical part of the present investigation is based on application of the wide range of statistical and econometric tools. Research findings helped to understand the main products, where Russia has comparative advantages on the international agricultural market: fish, aquatic invertebrates; cereals, oil seeds, oleagic fruits, animal vegetable fats and oils, cleavage products, etc. At the same time according to the analysis Russia is keeping the highest Lafay index value especially in relation to the following countries (2014): Turkey, Kazakhstan, Republic of Korea, Azerbaijan and Iran.

Additionally, it is taken into account the present sanctions of Russia and their influence on agricultural competitiveness development. The applied sanctions particularly reduced the value of agrarian imports and resulted in the growth of Russian production capacities.

Keywords: Russia, agriculture, trade, structure, products, territories, comparative advantage, value, development

Content

1. Introduction.....	14
2. Objectives	15
3. Methodology.....	17
4. Theoretical bases of the world trade concept.....	23
4.1 Economic theories as a prerequisite for the concept of the world trade	23
4.2 International trade policies. Main definitions, its tools	26
4.2.1 Basic concepts of the present international trade policies	27
4.2.2 Tools of the present trade policies	29
4.2.3 The specifics of the world agricultural market and trade	31
4.3 The role of regional integration and the WTO in the regulation of modern international trade	36
4.3.1 International organizations as examples of the regional integration	36
4.3.2 The role of the World Trade Organization	38
4.3.3 Prospects and losses of the Russian membership in the WTO	39
5. Present Russian agricultural trade structure. Influence of the agro-food production on the GDP growth.....	45
5.1 Agricultural and food sectors of the Russian Federation.....	45
5.2 The role of agricultural sector in the economic growth.....	50
5.2.1 Research question 1 formulation	50
5.2.2 Analysis and interpretation of results	51

6. Russian foreign trade and membership in the international trade unions and organizations	55
6.1 Russia as an important driver of the Commonwealth of Independent States	55
6.2 New possibilities in the Eurasian Economic Union.....	59
6.3 Russia and its activities within the BRICS	63
6.4 Russia and OECD countries	69
6.5 The rest of the world.....	72
7. Russian agricultural sector comparative advantage development	76
and its possibilities in frames of new international trade realations	76
7.1 Comparative advantages of Russian agricultural exports.....	76
7.1.1 Research question 2 formulation	76
7.1.2 Analysis of Russian comparative trade advantages in the agricultural sector	76
7.2 Scenario of economic competitiveness development for Russia, particularly in the agribusiness industry	103
7.2.1 Research question 3 formulation	103
7.2.2 Sanctions and Russian agricultural competitiveness development.....	104
8. Results of research findings	111
9. Conclusion	113
10. References.....	116
Appendices.....	120

List of abbreviations

BRICS – Brazil, Russia, India, China, Southern Africa

CIS – Commonwealth of Independent States

EAEU – Eurasian Economic Union

EU – European Union

FAO – Food and Agriculture Organization of the United Nations

GATT – General Agreement on Tariffs and Trade

GDP – Gross Domestic Product

GLI – Grubel-Lloyd Index

HS – Harmonised System

LFI – Lafay Index

NAFTA – North American Free Trade Agreement

OECD – Organization for Economic Cooperation and Development

TBI – Trade Balance Index

TRQ – Tariff- rate quota

UN – United Nations

USA – United States of America

WTO - World Trade Organization

List of tables

Table 1 - HS main agricultural items (24 commodities)

Table 2- Tariffs within TRQ and without TRQ for several products, %

Table 3 – Production of livestock and poultry for slaughter from the beginning of the year, thousand tons

Table 4 – Production of dairy products, thousand tons

Table 5 – Self-sufficiency ratio in Russia, basic food products, %

Table 6 - Import dependency ratio in the Russian Federation, %

Table 7 – Main indicators of Russian agricultural foreign trade, mln USD, 2014

Table 8 – Basic data for calculations

Table 9 - The matrix of pairwise correlation coefficients

Table 10 - Regression analysis

Table 11 - Calculated and actual values of the efficient indicators

Table 12 - Product structure of Russian agricultural and food imports from CIS (except EAEU) countries, %

Table 13 - Product structure of Russian agricultural and food exports to CIS (except EAEU) countries, %

Table 14- Russian-CIS (except EAEU) intra-industry trade, Grubel-Lloyd index, 2014

Table 15- Product structure of Russian agricultural and food imports from EAEU, %

Table 16 - Product structure of Russian agricultural and food exports to EAEU, %

Table 17- Russian-EAEU intra-industry trade, Grubel-Lloyd index, 2014

Table 18- Product structure of Russian agricultural and food imports from BRICS, %

Table 19- Product structure of Russian agricultural and food exports to BRICS, %

Table 20 - Russian-BRICS intra-industry trade, Grubel-Lloyd index, 2014

Table 21- Product structure of Russian agricultural and food imports from OECD, %

Table 22- Product structure of Russian agricultural and food exports to OECD, %

Table 23- Russian-OECD intra-industry trade, Grubel-Lloyd index, 2014

Table 24- Product structure of Russian agricultural and food imports from the rest of the world, %

Table 25- Product structure of Russian agricultural and food exports to the rest of the world, %

Table 26- Russian intra-industry trade with the rest of the world, Grubel-Lloyd index, 2014

- Table 27 – Values of Balassa index for Russian agricultural products and food trade
- Table 28 - The LFI index for Russian agricultural products in relation to CIS
- Table 29 - The LFI index for Russian agricultural products in relation to the Eurasian Economic Union
- Table 30 - The LFI index for Russian agricultural products in relation to BRICS
- Table 31 - The LFI index for Russian agricultural products in relation to OECD
- Table 32 - The LFI index for Russian agricultural products in relation to the rest of the world
- Table 33- Top 20 countries in terms of comparative advantages of Russian agricultural products, 2014
- Table 34 – List of products prohibited to import
- Table 35 - The impact of sanctions on the products price raise in 2014, %
- Table 36 - Self-sufficiency targets for the main food groups in the State Programme, %
- Table 37 - Agricultural trade values after imposed sanctions, 2014/2015, USD

List of figures

Figure 1 – Products mapping scheme

Figure 2 – Evolution of net trade in agricultural products by region, 2000-24, billion USD

Figure 3 - Top 10 exporters of agricultural products, 2013, million USD

Figure 4 - Top 10 importers of agricultural products, 2013, million USD

Figure 5 –World exports by product, 2000-2014 (in value terms, billion dollars)

Figure 6 -Agricultural support in Russia, % of gross farm receipts, 2000 – 2014

Figure 7 - The structure of the grain exports in the season 2015/16 (July - February), %

Figure 8 – Dynamics of the expenditures for agricultural sector, 2011-2014, bln rub

Figure 9 – Annual GDP growth rate in BRICS countries, 2010-2014, %

Figure 10– The amount of import from Brazil to the Russian Federation, 2010-2014, billion USD

Figure 11 - Products mapping of Russian agricultural comparative advantages, CIS, (2000; 2014)

Figure 12 - Products mapping of Russian agricultural comparative advantages, EAEU (2000; 2014)

Figure 13 - Products mapping of Russian agricultural comparative advantages, BRICS, (2000; 2014)

Figure 14 - Products mapping of Russian agricultural comparative advantages, OECD, (2000; 2014)

Figure 15 - Products mapping of Russian agricultural comparative advantages, rest of the world, (2000; 2014)

Figure 16 - Products mapping of Russian agricultural comparative advantages, the whole world, (2000; 2014)

1. Introduction

International trade relations determine the economic prosperity of every country. It is impossible to develop the economy in the conditions of closed market.

At the present moment the Russian Federation is actively engaged in the international trade process and takes new positions in the global market. For example, Russian accession in 2012 to the World Trade Organization and recent retaliatory sanctions to the European Union, the United States and other countries determined new directions of Russian trade policy, particularly in the agricultural sector.

It is necessary to notice that agriculture is quite essential in the Russian economy. The country takes 3rd place in the world in the cereals export (after the United States and the European Union) and 4th place in the world in wheat exports (behind the United States, the European Union and Canada). However, there are certain problems related with the country's self-sufficiency in the agricultural sector. The question of the agricultural sector comparative advantage development is going to be the main issue for the government in the near future.

According to the Food Security Doctrine, the Russian Federation needs to reach the following minimum of agricultural domestic production:

- grain - no less than 95%;
- sugar - not less than 80%;
- vegetable oil - not less than 80%;
- meat and meat products - not less than 85%;
- milk and dairy products (in milk equivalent) - at least 90%;
- fish production - not less than 80%;
- potatoes - not less than 95%;
- dietary salt - not less than 85%.¹

At the present moment, the most important products to maintain from this list are meat and dairy products, as the rest of the goods are more or less close to the minimum. Russia needs to be focused on increasing its domestic production, particularly because of

¹ THE RUSSIAN FEDERATION. 2010. *Food Security Doctrine of the Russian Federation*. Available at: <http://www.kremlin.ru/news/6752>

the changed trade relations with its western partners. The country has to search for new ways to develop agricultural sector, taking into account its comparative advantages and current trade situation.

At the same time, despite Russia's problematic trade relations with the European and some North American countries, it tries to establish alternative partnerships with the rest of the world. The lack of such cooperation and collaboration is one of the main issues of modern Russian trade policy, especially in the agricultural sector.

Another noteworthy issue is Russian accession to the World Trade Organization. Membership in the WTO is always a disputable question. There were a lot of controversy and contrasting views about the necessity of Russia to be a part of the organization. Members of the WTO have to reduce the government support to the agricultural sector and restrict custom tariffs, which lead to changes of the country's competitiveness in the agricultural sphere.

Thus, all the problems mentioned above are going to be studied and investigated in the present research work. The main task is to specify where Russian products have comparative advantage and how to develop domestic agricultural production in terms of the current trade situation on the global market.

2. Objectives

The agricultural trade performance of Russia and possibilities of its comparative advantage development are sufficiently urgent problems.

Thereby the main research questions of the Diploma Thesis are the following:

- 1. How does agricultural production influence the country's economic growth? Is the Russian government effectively supporting this sector of economy?*
- 2. What groups of agricultural products and foods have comparative advantages in Russian exports? Which countries are the most important partners in frames of the theory of comparative advantages?*
- 3. What are the prospects of the Russian agricultural sector in the near future taking into account its present economic and political position in the world?*

The main aims of this research work are to specify changes in: the agricultural trade territorial and commodity structure of Russia, comparative advantages in the agricultural trade performance, food safety and food security policies. Thesis is also

identifying the current positions of Russian agricultural sector within the international trade market and its future development possibilities.

These aims can be achieved through the set of sub-goals:

- Determine the historical prerequisites of the international trade competitiveness
- Identify the common tools of the modern international trade policies
- Examine the peculiarities of Russian membership in the WTO and prospects of this cooperation
- Specify importance of the agricultural sector in the country's GDP and economic growth
- Identify main products-drivers, where Russia has comparative advantages on the global agricultural market
- Specify the main directions of the modern Russian international trade in the agricultural sector
- Observe possible ways the Russian agricultural trade can develop competitiveness in conditions created by the import bans imposed in 2014.

In order to explain these objectives, the Diploma Thesis is divided into several chapters and paragraphs. The first part is dedicated to the theoretical basis of the world trade concept, including economic theories, international trade policies and the role of the WTO in the regulation of trade relations.

The next part will be related with the structure of the Russian agricultural trade performance. Additionally, it will be observed the efficiency of the Russian federal budget expenditures to the agricultural sector in accordance with the econometric model.

The following section will overview Russian trade activities in different trade unions and organizations such as: the Commonwealth of Independent States, the Eurasian Economic Union, the BRICS, the Organization for Economic Cooperation and Development, and the last category of countries will be defined as "the rest of the world".

Additionally, it is important to estimate Russian agricultural trade policy and possibilities of agro-food sector taking into account the present economic and international trade conditions, primarily connected with the sanctions, which came into force in 2014.

All these completed objectives will show the real overview of the present Russian external and internal economy and help to analyze the scenario of economic competitiveness development for Russia, particularly in the agribusiness industry.

3.Methodology

The present Diploma Thesis is aimed to estimate comparative advantages and development possibilities of Russia's agricultural products exports.

Thereby, to achieve the main aims it is necessary to use certain methods of quantitative and qualitative analysis, such as documents analysis, classical statistical methods of analysis, time series analysis, etc.

Document analysis can be defined through different types:

- traditional document analysis (for studying the agreements between Russia and its international partners and organizations, statistical data);
- expert survey (for evaluation of Russian transition to the World Trade Organization and expert analysis of modern economic situation).

Empirical base of the document analysis consists of:

- official documents of the authorities, organizations and institutions such as Official documentation of Eurasian Commission, legal texts of the WTOs;
- statistical data as World Trade Statistics 2014, FAO and United Nation databases;
- unique documents (WTO publications).

For agricultural product groups analysis it was necessary to use the certain system. In the case of the Russian Federation's foreign trade structure, the 2-digit level of the Harmonized System (HS) is the most appropriate, as the agri-food product groups are divided into 24 Chapters (Table1).

Table 1 - HS main agricultural items (24 commodities)

<i>Code</i>	<i>Product label</i>
01	Live animals
02	Meat and edible meat offal
03	Fish, crustaceans, molluscs, aquatic invertebrates
04	Dairy products, eggs, honey, edible animal products
05	Products of animal origin
06	Live trees, plants, bulbs, roots, cut flowers
07	Edible vegetables and certain roots and tubers
08	Edible fruit, nuts, peel of citrus fruit, melons
09	Coffee, tea, mate and spices
10	Cereals
11	Milling products, malt, starches, inulin, wheat glute
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.
13	Lac, gums, resins, vegetable saps and extracts
14	Vegetable plaiting materials, vegetable products
15	Animal, vegetable fats and oil, cleavage products
16	Meat, fish and seafood preparations
17	Sugars and sugar confectionary
18	Cocoa and cocoa preparations
19	Cereal, flour, starch, milk preparations and products
20	Vegetable, fruit, nut and other preparations
21	Miscellaneous edible preparations
22	Beverages, spirits and vinegar
23	Residues, wastes of food industry, animal fodder
24	Tobacco and manufactured tobacco substitutes

Source: UN Commodity Trade Statistics Database

For evaluation of the present Russian economy and international trade performance the following indicators is used:

Self-sufficiency ratio (SSR).

To estimate the level of Russian self-sufficiency in certain categories of products, the self-sufficiency ratio is used.

This index can be defined as the level of domestic production in relation to the country's domestic consumption. The following formula is used to calculate the self-sufficiency ratio:

$$SRR = \frac{\text{Production}}{\text{Amounts of Domestic Supply}} * 100 , \quad (1)$$

where Amounts of Domestic Supply = Domestic Consumption (including industrial and consumption, loss of production).

Import dependency ratio (IDR).

The main aim of this index is to demonstrate a country's food dependency from the import and possibilities of its own production. The formula for the calculation is as follows:

$$IDR = \frac{Imports}{Domestic\ supply} * 100 \quad (2)$$

The foreign trade balance is a difference between a country's exports and imports.

The normalized trade balance. This indicator can be explained as trade balance divided by total trade value.²

Regression analysis

To estimate the influence of the effective federal budget distribution to agricultural sector on a country's economic growth, **a simple linear regression model is used.**

This type of analysis requires using of dependent and independent variables. The Gross Domestic Product per capita is chosen as the dependent factor, and federal budget expenditures to the agricultural sector are the independent factor.

It is clear that the main aim of the linear model usage is to find the optimal equation, which can be applied in further calculations of expenditures effectiveness. The criteria received during the regression model building are following: Correlation Coefficient, Coefficient of Determination, Multiple R, Adjusted R, Standard Error, P-value and F-value.

As software tool the "Package Analysis" and statistical functions of MS Excel are applied to calculate the parameters of the linear regression equation.

The Correlation Coefficient and Coefficient of Determination (R²)

The main difference between these two coefficients that the correlation coefficient only can be used between pairs of variables, while the coefficient of determination connects a group of variables with the dependent variable.

² SVATOŠ, M. SMUTKA, L. ISHCHUKOVA, N. 2014. The position of agriculture in the Russian Federation – the last two decades development overview. *Agricultural Economics*. 60 (11),pp. 489-502. ISSN: 0139-570X.

The R^2 formula can be interpreted as following:

$$R^2 = \frac{ESS}{TSS} = 1 - \frac{RSS}{TSS}, 0 \leq R^2 \leq 1, \quad (3)$$

Where *TSS* is Total Sum of Squares, *ESS* is Explained Sum of Squares; *RSS* is Residual Sum of Squares.

$\frac{ESS}{TSS}$ = share of the total variation that is explained by the model;

$\frac{RSS}{TSS}$ = share of the total variation that is unexplained by the model.

The formula of the Correlation Coefficient is the following:

$$R = \pm\sqrt{R^2} \quad (4)^3$$

where R^2 – coefficient of determination.

Adjusted R^2 can be explained as a change of R-square that adjusts the number of terms in a model.

$$\overline{R^2} = 1 - \frac{(1-R^2)(N-1)}{N-P-1}, \quad (5)$$

where R^2 – coefficient of determination, N- total sample size, P-number of predictors.

Multiple R explains the level of connection between dependent and independent factor. The value should be close to 1 for the strong type of connection.

Standard Error can be explained as deviation of the statistical sample distribution.

F-value determines the accuracy of the built equation and should tend to zero.

P-value indicates the probability error calculated for Y and X values.

For evaluation of the federal budget expenditures effectiveness is used the following formula:

$$\text{Effectiveness} = \frac{\mathbf{Y actual}}{\mathbf{Ycalculated}} \times 100\%, \quad (6)$$

where Y_{actual} is real value of the GDP per capita, $Y_{calculated}$ is calculated GDP per capita on the basis of the regression equation

³ GREENE, W. 2003. *Econometric analysis*. Upper Saddle River, N.J.: Prentice Hall. pp. 36-41 ISBN 0-13-139538-6.

Index analysis

For estimation of Russian competitive advantage in exports it is important to use **Balassa index or index of revealed comparative advantage (RCA)**:

$$RCA_{ij} = \frac{\frac{x_{ij}}{X_i}}{\frac{x_{ai}}{X_a}} \quad (7)$$

x_{ij} - exports of product j from country i ;

X_i - total exports from country i ;

x_{ai} - exports of product j from the reference area;

X_a - total exports from the reference area.

To measure the extent of intra-industry trade it is used the **Grubel – Lloyd index**. This index is presented as a percentage of country's total trade which is assumed to be balanced and that's exports equal imports. It is calculated as:

$$GL = 1 - \left(\frac{|export - import|}{export + import} \right) \quad (8)$$

The Grubel –Lloyd index usually varies between zero (pure inter-industry trade) and one (pure intra-industry trade).⁴

The last index which is applied during the investigation is **Lafay index**, which can be interpreted in the following way:

$$LF_j^i = 100 \left(\frac{x_j^i - m_j^i}{x_j^i + m_j^i} - \frac{\sum_{j=1}^n x_j^i - m_j^i}{\sum_{j=1}^n x_j^i + m_j^i} \right) \frac{x_j^i + m_j^i}{\sum_{j=1}^n x_j^i + m_j^i} \quad (9)$$

where \mathbf{x} and \mathbf{m} are exports and imports of \mathbf{j} product realized by \mathbf{i} country.

This index takes into account comparative advantage of the country both in exports and imports in relation with couple of countries, that's why it's suitable for a country with intra-industry trade.

⁴ ISHCHUKOVA, N. and SMUTKA, L. 2014. The Formation of Russian Agrarian Trade Structure: Inter-industry vs. Intra-industry Trade Activities. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis. 62(6). pp.1293-1299. ISSN: 1211-8516.

Product mapping

The main aim of the product mapping analysis is to point out the main categories of products where Russia has comparative advantages in exports and imports in two periods: 200 and 2014 year. Data for the calculation is taken from the United Nation database. As criteria of the product maps it is chosen such indices, emerged in the economy due to Lafay in 1992, as: Trade Balance Index (TBI) and Lafay Index (LFI).

The last index was already observed above as in the present investigation it is necessary to use twice in different types of analysis.

Trade Balance Index is devoted to explain where the country has specialization in export as net-exporter and where in imports as net-importer.

The formula for calculation can be interpreted in the following way:

$$TBI_{ij} = (x_{ij} - m_{ij}) / (x_{ij} + m_{ij}), \quad (10)$$

where TBI_{ij} - trade balance index of country i for product j;

x_{ij}, m_{ij} – represent exports and imports of group of products j by country i.⁵

Thus the products map will be done in the following way:

Figure 1 – Products mapping scheme

Lafay Index (LFI)	Comparative advantage Net-importer LFI > 0 and TBI < 0	Comparative advantage Net-exporter LFI > 0 and TBI > 0
	Comparative disadvantage Net-importer LFI < 0 and TBI < 0	Comparative disadvantage Net-exporter LFI < 0 and TBI > 0
	Trade Balance Index (TBI)	

Thus, this tool of analysis should show the most important for Russia agricultural set of products according their comparative advantages.

⁵ ISHCHUKOVA, N. SMUTKA, L. 2013. Revealed comparative advantage of Russian agricultural exports. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 61(4). pp. 941-952. ISSN: 1644-0757.

4. Theoretical bases of the world trade concept

Clear understanding of the modern trade relations is provided with determination of the historical basis of the nations' competitiveness theory.

During many centuries scientists pay attention to the problem of theoretical analysis of the international trade, its interaction with internal development of countries-participants.

The central place in all these theories takes the questions: What is the basis of international trade development? What is the participation result for national economies? How does the international trade impact to the life quality of the population? How countries should act taking into account their comparative advantages? What kind of products to produce to be competitive on the global market?

Modern trade theories are the results of economic thought ideas evolution.

Basically first works of mercantilists and afterwards ideas of Adam Smith, David Ricardo, theory of Eli Heckscher and Bertil Ohlin, Paul Samuelson and Rybczynski investigations, Porter's international trade theory can be defined as founders of the modern world trade concept. All these economists did the great contribution to the researching of the global economy and deserve to be mentioned in the present work.

4.1 Economic theories as a prerequisite for the concept of the world trade

The first doctrines which tried to explain the peculiarities of the international trade system were the theory of the mercantilism. These researches can be determined as a sort of economic philosophy which predates classical liberalism. It was the main economic idea in the European part and existed from late Middle Ages through to the sixteenth and seventeenth centuries.

There are a lot of economists in the present days whose can be called "neo-mercantilist" as followers of the mercantilism theory in the point of view.

The main ideas of the mercantilism were based on exports extension in the country, since it would draw in gold and silver from abroad and increase the domestic money supply.

However, during the period of countries' transition to the manufactured production the economist **Adam Smith** again raised the question of a rational international trade. In

his famous book "*The Wealth of Nations*" (1776), dedicated to the critique of mercantilism, he claimed that the state can be beneficial not only selling, but also purchasing goods in the foreign markets. He also tried to determine which products profitable to export, and what is better to import. Adam Smith's approach for the international trade is known as *the theory of absolute advantages*.

Thus Smith proved that a country must be specialized in export of the commodities, where it has an absolute advantage. An absolute advantage existed if the country could produce with less labor per unit of goods comparing with its trading partners. At the same time, it need import commodities in production of which it had an absolute disadvantage. An absolute disadvantage existed when the country could produce a commodity only with more labor per unit produced than could its trading partner.⁶

However Adam Smith did not consider the situation where a country has an absolute advantage in all groups of commodities. **David Ricardo** explained that in his work "*Principles of Political Economy and Taxation*" (1819). He formulated a general principle of mutually beneficial trade and international specialization; including as a special case model of Adam Smith.

Ricardo noticed the specifics of international economic relations and created a model which showed that a deviation from the principle of Adam Smith is not an obstacle for fair trade. Ricardo explained the law of comparative advantage: countries should specialize in the export of goods, production of which it has the greatest absolute advantage (if it has an absolute advantage in both goods) or the smallest absolute disadvantage (if it has no absolute advantage for no one of the goods).

Economist MacDougall made the first empirical test of Ricardo's theory of comparative advantage. He compared the export patterns of the United States and the United Kingdom and found that wage rates and labor productivity were important

⁶ SMITH A. "Wealth of nations". [Online]. Available at: <http://www.econlib.org/library/Smith/smWN1.html#B.I, Ch.1, Of the Division of Labor.> [Accessed: 2015, September 14].

indicators of international trade patterns. A more recent test of the Ricardian model, done by Golub, also supports Ricardo.⁷

There have been structural changes in international trade at the end of the XIX century - early XX century. The role of natural differences as a factor in international division of labor has declined essentially.

At this time the Swedish economists **Eli Heckscher and Bertil Ohlin** tried to explain the causes of international trade in manufactures. The main principles of the new theory were formulated by E. Heckscher in a short newspaper article, published in 1919. In the 20-ths and 30-ths years of the XX century, these principles were summarized and developed by his student B. Ohlin.⁸ The specific contribution to the development of the theory was made by the American economist **Paul Samuelson**.

The main principle of the Heckscher-Ohlin model is based on the corresponding of the traded commodities to the productive factors such as land, labor, and capital. International exchange of commodities therefore, means transferring the services of otherwise immobile factors of production from locations where these factors are abundant to locations where they are scarce. Under some circumstances, this indirect arbitrage can completely eliminate differences in price of productive factors. Perhaps the most important implication of the HO model is that the option to sell factor services externally (through the exchange of commodities) transforms a local market for factor services into a global market. As a result the derived demand for input becomes much more elastic as well as more similar across countries.⁹

Thus, according to the Heckscher-Ohlin theory, trade makes it possible for each country to specialize.

⁷ CARBAUGH, J. Robert. 2009. *International Economics, 12th Edition*. South-Western Cengage Learning, Central Washington University. ISBN 13:978-0-324-58148-5.

⁸ KENNETH A. 2009. *The Princeton Encyclopedia of the World Economy*. Princeton University Press., ISBN: 9781400830404

⁹ LEAMER, Edward E. 1995. *The Heckscher-Ohlin Model in theory and practice*. Princeton studies in international finance. ISBN 0-88165-249-0.

However disparities in supply growth factors has another important consequence, which was reflected in the **Rybczynski theorem**: increase in the supply of one of the production factors lead to an increase of goods produced with intensive use of this factor, and to reduce the release of other goods.

Thus, international trade can be linked not only with positive, but also negative effects, which explains the presence of two trends in trade policies - free trade and protectionism.

Speaking about modern theories of international trade it is necessary to remind **Michael E. Porter** and his theory of “The Competitive Advantage of Nations”, which was published in 1991.

According to his investigation the main role in the international trade belongs to the industries, firms: “In the international market the company compete, not countries. It is necessary to understand how the company creates and maintains competitive advantage to understand the country's role in this process.”¹⁰

Thus, all concepts considered before reflects the evolution of the international trade theory and prove the importance of this issue investigation. From times of Adam Smith to present days, economists try to find optimal solutions in the foreign trade and propose different strategies of its implementation.

Next paragraph is devoted to the international trade tools and methods which every country applies during the establishment of the trade relations.

4.2 International trade policies. Main definitions, its tools

Historically countries tend to take the key role on the global market; the previous paragraph is its bright proof. The world economic situation today is tense; there are a lot of problems in economics which are connected primarily with geopolitical interests of countries.

First of all, it is necessary to give main definitions of the international trade topic for further clear understanding of the problem discussing in the present research work.

¹⁰ PORTER, M. 1990. *The competitive advantage of nations*. New York: Free Press. ISBN 0-684-84148-7

4.2.1 Basic concepts of the present international trade policies

International trade policy can be explained as a complex of policies in exchange of capital, goods and services across international borders or territories. The main empirical characterizations of this term are the direction of export, import and trade saldo.

It is necessary to notice that the international trade policy of the country is usually determined by its internal and external factors, which influence to the development of the international trade policy of any state.

At the present time economists distribute several modern economic concepts to explain international trade. Firstly, the main aim of all these concepts is to demonstrate the abstract economic conditions on the world market and seek more suitable trade patterns for countries. Frankly, modern economic international trade theories are focused on the creation of the most favorable conditions for enterprises. Economists pay attention to the problems of firms modernized and transferred into the big transnational corporations. It is necessary to notice that with the process of globalization the similar commodities with different brands can be found all around the world. In order to survive themselves, enterprises have to make every effort to create competition advantage and process foreign trade.

Thus according to the article of *Jose Prunello "Changing role of trade promotion"*, it is a new tendency in some countries where Trade Promotion Organizations (TPO) appears. These institutes are interested in the promotion of local producers on the global market. Usually these organizations are focused on searching of the appropriate foreign markets for the local producers' promotion. Such types of cooperation are quite helpful for small businesses to expand their territorial opportunities.¹¹

Trade Promotion Organizations can play a significant role in the increasing of the countries' trade performance and government should support it. For example, according to *Marcelo Olarreaga and Lucy Payton (Export Promotion Agencies: Do they work?)* countries which provide support to the TPOs in average take 0.05% of increase of their national exports to the 1% average increase in the budgets of export promotion agencies. It

¹¹ PRUNELLO, J. 2014 .Changing role of trade promotion. *International Trade Forum*. 4(1). pp.14-15. ISSN: 00208957

means that investment trade promotion can yield a return of more than US\$ 40 for each dollar invested in a TPO.¹²

Thus at the present days trade is more related with the certain enterprises and most of the modern theories try to explain the benefits of definite businesses in the international trade concepts. Economies of scale are one of such theorems.

Economies of scale are associated with the change in cost per unit of output, depending on the scale of its production company.

One important fact is that trade between countries doesn't depend on country differences. The average cost is going down with the manufacturing enlargement. This theory explain why trade increase between different developing countries, even with the same factor proportion advantages like low labor cost, natural resources, etc.

In contrast to internal economies of scale within firms, there can also be **external economies of scale** which referred to external advantages associated with a firm being located in an industrial environment. Such advantages are external because of location outside the company. Additionally in the cluster industry new technologies tend to extend faster, markets and infrastructures are more developed and run more powerfully. Enterprises benefit from all the above mentioned factors, and obtain more outputs with fewer inputs, thus average production costs go down.¹³

Products can be made in different characteristics for the requirements of different markets and customers. Nevertheless differentiated products theory and economies of scale contradict each other. If we need to decrease production costs, production enlargement is important to produce standard goods in large quantity, but it can conflict with the former one which requires diversification and small quantity.

Thus, the recent theories taking into account differentiated products, as well as economies of scale and enterprise specialization; both of them are focused mainly on the certain business and firms, because of their increasing role on the global market.

¹²OLARREAGA M. and PAYTON L. 2010. Export Promotion Agencies: Do they work? *Journal of Development Economics*. 91(2). pp.257-265. DOI: 10.1016/j.jdeveco.2009.09.003

¹³ MA, J. LU, Y. 2011. Free Trade or Protection: A Literature Review on Trade Barriers. *RWE*. 2(1). [Online]. Available at: www.sciedu.ca/rwe. [Accessed: 2016, January 12].

4.2.2 Tools of the present trade policies

Today country's trade policy determines its economic and social stability. To reach the state's prosperity each country chooses its way of trade relations. As we know these trade relations are organized with specific tools.

There are a lot of varieties of the trade policies: taxes, subsidies, quantitative restrictions or encouragements on imported or exported goods, services and assets. In this paragraph we describe many of the policies that countries have implemented or have proposed implementing. The purpose of this part is not to explain the likely effects of each policy, but rather to define and describe the use of each policy.

Import Tariffs

An import tariff is a tax collected on imported goods.

One of the main functions of tariffs is to protect domestic producers from the foreign competitors. These types of restrictions are common especially in the agricultural sector when government tend to implement policy of country's food security and protect local farmers.¹⁴

We can mark three basic ways in which tariffs may be levied: specific tariffs, ad valorem tariffs, compound.

A specific tariff is a fixed charge per unit of imports. An ad valorem tariff can be explained as a fixed percentage of the goods imported value. A compound tariff is expressed as a combination of the above types of tariffs.

It is necessary to notice that after the Russian accession to the World Trade Organization, the country has to reduce the measures of the protective policy and reduce the import tariffs. Primarily it deals with the agricultural and industrial sectors production. After the transition period The Russian Federation will reduce the 30% of the ad valorem and compound tariffs for more than 5 %.¹⁵

¹⁴ DEBORAH, J. 2015. Food Security, Farming, and the WTO and CAFTA. *Global Exchange Organization*. [Online]. Available at: <http://www.globalexchange.org/resources/wto/agriculture>. [Accessed: 2015, December 15].

¹⁵ Official website of the *World Trade Organization*. [Online]. Available at: <https://www.wto.org>. [Accessed: 2015-2016].

Import quotas

Import quotas are restrictions on the quantity of imported goods in the country.

It is possible to emphasize two basic types of quotas as absolute and tariff-rate quotas. First type of quotas limits the amount of imports to a definite level for a specified period of time. These quotas can be set globally and affect all countries' imports or against definite country. Tariff-rate quotas are expressed as a specified amount of goods which can be imported at a reduced tariff rate during the definite quota period. For example, after the accession to the World Trade Organization Russian tariff-rate quotas on pork would be 400,000 tons, and on poultry imports would be 350,000 tons. Russia will set its quota on beef imports at 530,000 tons.¹⁶

Voluntary export restraint

Voluntary export restraint is a trade tool which government implements to limit export of certain types of products during the definite period of time. As usually these voluntary restrictions connected with export quotas.

Basically voluntary export restraints appear in such cases when countries need a protection from the flood of the exports from other countries.

Usually, VERs are basically applied on a bilateral basis. This type of restrictions was during the 1980s, probably because they did not confront with the GATT agreements between countries. After 1994 year Uruguay round of the GATT, World Trade Organization members decided not to apply any new VERs.

Excise taxes on imported products

Excise taxes on imported products are the tools which government applies in relation to such categories of products as cigarettes, alcohol, fuels and etc. These taxes increase the products prices which lead to the demand decreasing. Recently the Ministry of

¹⁶ WORLD TRADE ORGANIZATION. 2011. *News Items, Working Party Seals the Deal on Russia's Membership Negotiations*. [Online]. Available at: http://www.wto.org/english/news_e/news11_e/acc_rus_10nov11_e.htm. [Accessed: 2015, November 12]

the Agriculture of Russia proposed to apply this type of taxes on the imported palm oil and some genetically modified products.¹⁷

Despite of that it is not implemented and disputable question, the excise taxes can be also related to the international trade restrictions.

Other Trade Policy Tools

There are some additional tools besides tariffs and quotas, which are aimed to protect local producers and create for them favorable conditions for trade.

Common examples of such measures are standards of goods quality, technical barriers to trade, sanitary and phytosanitary measures, anti-dumping tools, etc.

Mainly the purpose of these restrictions is to protect local citizens from dangerous influence of the harmful chemicals. However in some cases these barriers can be official pretext to defense interests of domestic producers.

4.2.3 The specifics of the world agricultural market and trade

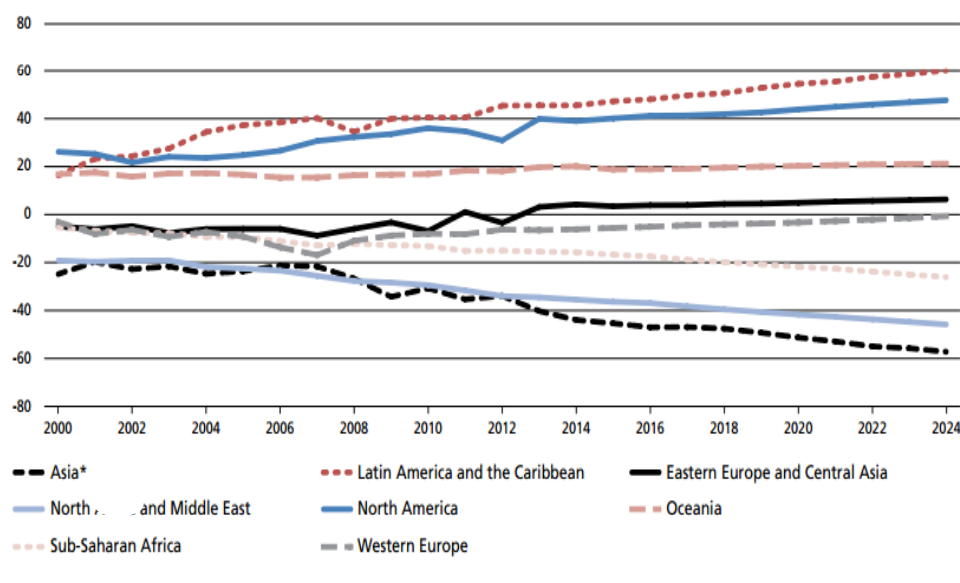
Agricultural sector plays an important role in any economy. The goal of the most governments is to provide food security in the country and the development of the agri-food production is connected directly with it.

Trade of agri-food products is increasing because of high level of demand, especially in the developing countries, where the population is growing fast. From 2000 to 2012 the global agricultural exports value was tripled. This evolution is predicted to be continued because of increasing of the global demand for agricultural products (Figure 2).¹⁸

¹⁷ EXPERT RUSSIA. 2016. *The Ministry of Agriculture has supported the excise tax on palm oil*. [Online]. Available at: <http://expert-russia.com/biznes-i-finansy/528-minselhoz-podderzhal-akciz-na-palmovoe-maslo.html> . [Accessed: 2016, February 23].

¹⁸ The State of Agricultural Commodity Markets Trade and food security: achieving a better balance between national priorities and the collective good, FAO Report 2015-2016/ <http://www.fao.org/3/a-i5090e.pdf>

Figure 2 – Evolution of net trade in agricultural products by region, 2000-24, billion USD



Source: FAO Report, 2015-2016

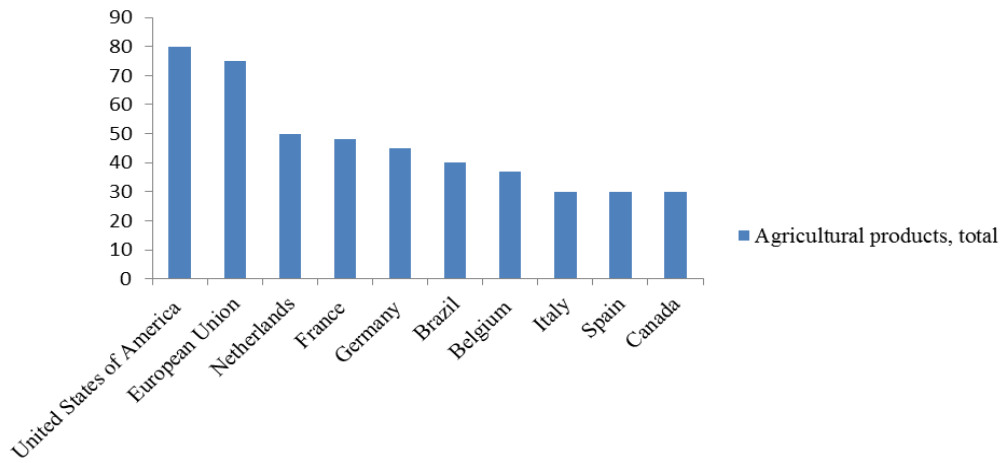
According to the figure above there are a lot of countries which are expected to raise their dependence on trade, either as net importers or net exporters. After China became the net-importer of many agricultural products, Asian region turned into the fastest increasing net importer, especially after 2007. The region of Latin America and the Caribbean is continuing to be the largest net exporter of agri-food products, this position on the global market is considered to maintain in the nearest future.

At the present time North America is the second largest net exporter, while Eastern Europe and Central Asia is becoming to shift from the status of net importers to a status of net exporters. At the same time such region as sub-Saharan Africa is continuing to be net importer, principally because of population growing.

Thus, it was analysis of the agricultural trade on example of regions, but how is situation if to take into account definite countries.

According to the Food and Agriculture Organization of the United Nations (FAO) investigation in top 10 exporters of the agricultural products the first place takes the United States of America; while Brazil (as a largest country and exporter in Latin America) takes just sixth position (Figure 3).

Figure 3 - Top 10 exporters of agricultural products, 2013, million USD



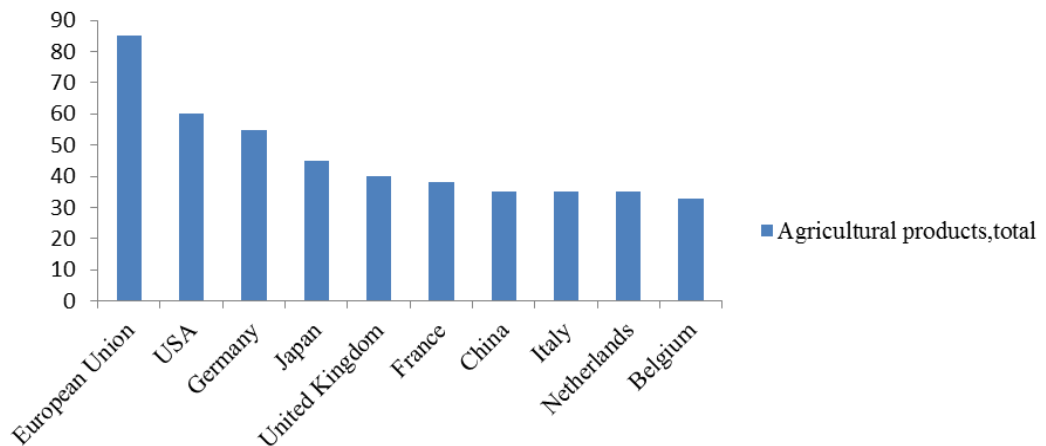
Source: Food and Agriculture Organization of the United Nations, 2013

As we see from the figure above European countries such as Netherlands, France, Germany, Belgium, Italy and Spain are maintaining their positions of the top exporters despite they are already concluded as the European Union countries, which speaks about their strong influence within the Community.

Noticeable that the European Union as ne unit takes the second place and afterwards some European countries take the rest places.

Speaking about importers the European Union takes the first place which is primarily concerned with intra- EU trade.

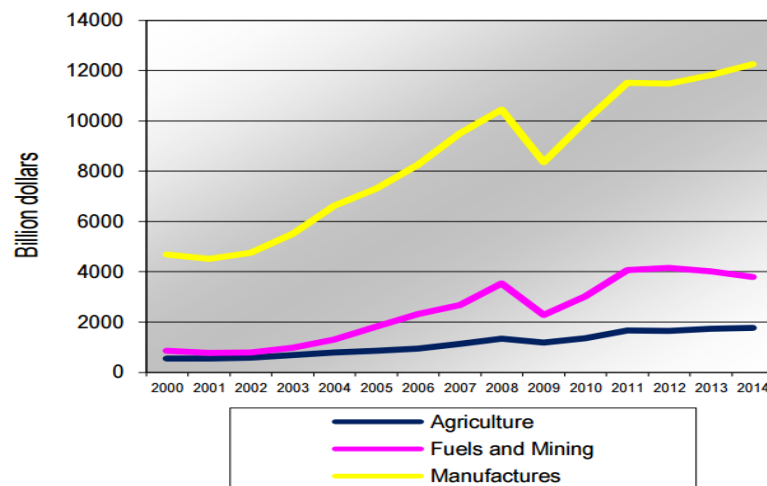
Figure 4 - Top 10 importers of agricultural products, 2013, million USD



Source: Food and Agriculture Organization of the United Nations, 2013

At the same time the value of global agricultural products trade (exports) is US\$1,765 billion and total exports of food is US \$ 1,486 billion. In the global merchandise trade agriculture is one of the most important after manufacture, fuels and mining (Figure 5).¹⁹

Figure 5 –World exports by product, 2000-2014 (in value terms, billion dollars)



Source: World Trade Organization statistics, 2014

According to the World Trade Organization the most traded agricultural products in 2010 were:

1. Soybeans – 5.3%
2. Palm oil – 3.8%
3. Wheat – 3.6 %
4. Sugar – 3.4 %
5. Maize – 2.7 %
6. Soybean oilcake – 2.6%
7. Grape wine – 2.3%
8. Coffee – 2.3 %

¹⁹ World Trade Organization statistics [Online]. Available at:

https://www.wto.org/english/res_e/statis_e/world_commodity_profiles14_e.pdf, [Accessed: 2015, October-2016, February].

9. Food preparations - 2.3%

10. Liqueur, spirits – 2.3 %

Thus, soybeans are the most exported product and according to the World Trade Organization Statistics Argentina, Brazil and the United States are the main exporters of soybeans. The palm oil share in the global export is 3.8%; the main exporters of it are Indonesia, Malaysia and Thailand. Speaking about wheat it is important to notice that Russian Federation is one of the main exporters with the European Union and the United States.

Position of the Russian Federation on the global agricultural market can be described as stable and fast-growing. Besides already mentioned wheat exports Russia is one of the main global suppliers of sunflower oil.²⁰

At the same time Russia plans to increase its agri-food sector production and export other types of products, including meat and dairy products. More detailed information and analysis about Russian position on the world agricultural market will be studied in the next chapter.

Thus we can conclude that agricultural sector is a crucial segment of the world trade. All countries tend to develop their agri-food production to provide self-sufficiency in the states. Issues of the disputes settlement connected with agriculture are necessary to take into consideration. At the present days the World Trade Organization plays the main role in establishment of suitable for trade conditions on the global market. Whereby, the next part of this chapter will be dedicated to the WTO and Russian membership there.

²⁰ BLAKE, J. KOSTOMAROVA, A. 2011. Russian agriculture from global perspectives. *Russia Today*. 2011, March 31. Available at: <https://www.rt.com/business/russia-agriculture-perspectives-unilever/>. [Accessed: 2016, January 12].

4.3 The role of regional integration and the WTO in the regulation of modern international trade

4.3.1 International organizations as examples of the regional integration

Historically countries tend to unite their efforts to reach certain goals in political or economic area. At the present times there are a lot of examples of international integrations, which help its members to achieve stability and establish friendly relations.

Such types of integration exist almost in all regions. Today it is difficult to imagine a country which is not involved in some integrational process. For instance, the European Union is a bright example of how mutual cooperation between countries help to overcome the economic, social and political obstacles. After the Second World War the situation demanded definite actions from European countries and idea of integration is primarily was connected with necessity of united forces against possible revival of Nazism, it helped to get back Germany to the peaceful way of cooperation. Moreover it provided fast growth of economy in all country-members of the community after the war. Nowadays the European Union is a unique type of integration with Single market and currency.

Another example of the regional integration is *the European Free Trade Association (EFTA)*. It can be defined as a free-trade area which was established in 1960 to create certain condition of free trade between its members and achieve the economic growth and prosperity of the Western European countries. At the first steps the EFTA included seven countries as Austria, Denmark, Norway, the United Kingdom, Portugal, Switzerland and Sweden. In 1961 Finland joined to the EFTA, afterwards in 1970 Iceland joined and in 1991 – Lichtenstein. However, this type of cooperation couldn't compete with the European Community and in 1973 the United Kingdom and Denmark left the Association and joined to EC. Later the some other countries like Portugal, Austria, Finland and Sweden did the same. Nowadays the EFTA consists of Norway, Iceland, Switzerland and Lichtenstein.²¹

²¹ Official website of *the European Free Trade Association*. [Online]. Available at: <http://www.efta.int/>. [Accessed: 2016, January 25].

Association of Southeast Asian Nations (ASEAN) was created on 8 August 1967 in Bangkok, Thailand by the following founding-countries Indonesia, Malaysia, Philippines, Singapore and Thailand.

The main aim of ASEAN Declaration was to establish association which can help to accelerate the economic growth, provide social and political stability in the countries and cultural development, maintain close cooperation with other regional organizations, etc.

Nowadays there are ten member-countries as Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Viet Nam, Lao PDR, Myanmar and Cambodia.²²

The North American Free Trade Association (NAFTA) was created by three countries as the United State, Canada and Mexico in 1994 for trade borders elimination among these countries.²³ The achievement of this agreement is that each member has its comparative advantage and can produce according to these condition goods and services and sells without any restrictions in frames of NAFTA.

The Eurasian Economic Union (EAEU) is a new community which was established by the Treaty of the Eurasian Economic Union and came into force on the 1st January of 2015. Members of the Union are the following countries: the Russian Federation, Republic of Armenia, Republic of Belarus, Republic of Kyrgyzstan, and Republic of Kazakhstan.

The EAEU provides free movement of goods, services, capital and labor according to the Treaty. One of the main aims is to reach economic growth and prosperity of countries coordinating their trade policies, creating the free trade area and cooperating for stable development in order to raise in member-countries living standards.²⁴

Thus, it possible to conclude that geographical positions of countries often influence on the economic cooperation among them. Countries tend to unite for achievement of the common goals and prosperity of their domestic economies. However,

²² Official website of the *Association of Southeast Asian Nations*. Available at: <http://www.asean.org> [Accessed:2016, February 12].

²³ Official website of the Global Affairs Canada [Online]. Available at: <http://www.international.gc.ca/>. [Accessed: 2016, February 10].

²⁴ Official website of the *Eurasian Economic Union*: [Online]. Available at: <http://www.eaeunion.org/> . [Accessed: 2016, October 13].

there is one important organization which is devoted to combine functions of the regionally integrated communities and implement monitoring and settlement of possible trade disputes between member-countries. The peculiarities of this institute (the World Trade Organization) are described below, in the next paragraph.

4.3.2 The role of the World Trade Organization

After the World War II one another organization was created too. Today we know it as WTO (World Trade Organization) which is an international organization created on 1 January 1995 with the purpose of international trade liberalization and regulation of trade and political relations between the Member States. WTO was established in 1995 on the basis of the General Agreement on Tariffs and Trade (GATT), signed in 1947.

Organization is responsible for the development and implementation of new trade agreements. It bases its work on the decisions which were taken in the 1986-1994 in the framework of the Uruguay Round and earlier GATT agreements.

WTO headquarter is located in Geneva, Switzerland. WTO CEO is Roberto Carvalho de Azevedo. There are 162 member-states in the World Trade Organization, where 2/3 of countries are developing.

The World Trade Organization is devoted to provide stable development of its members and implement the functions through trade regulations mostly by tariff methods. At the same time the organization's purpose is to support the developing countries' integrations into the global trade market. The most important functions of the WTO are connected with the resolution of trade disputes through consultations and negotiations, monitoring of the implementation of agreements and arrangements of the Uruguay Round package of documents; monitoring of national trade policies in member countries; technical assistance for developing countries within the competence of the WTO; cooperation with specialized international organizations.²⁵

Thus, the World Trade Organization implements crucial part of the world trade monitoring. Creation of the favorable trade conditions for all member-countries, providing of the transparent ways of cooperation and collaboration, settlement of the disputes are

²⁵ Official website of the *World Trade Organization*. [Online]. Available at: <https://www.wto.org>. [Accessed: 2015-2016].

important tasks of the organization. The Russian Federation is a member of the WTO since 2012. However, there are a lot of opinions about the utility of this accession. Whereby, all prospects and losses of the Russian membership in the World Trade Organization are observed in the next paragraph.

4.3.3 Prospects and losses of the Russian membership in the WTO

The main purposes of the Russian accession to the WTO were primarily connected with importance of the international trade development, accession to the world market, creating of favorable conditions for foreign investment, expanding of the Russian local investors in frames of the WTO membership, particularly in the investment sphere. At the same time this membership can mean the improvement of the Russian trade image as the WTO member.

However, not all these purposes can cover risks for domestic producers after Russian accession to the WTO. For example, competition between local producers and foreign imports is increasing almost in all economic sectors.

The government in this case has to change the directions of its trade regulations and stabilize positions of domestic and foreign production.

There are a lot of different and mostly quite opposite opinions of economists about perspectives and possible losses after the Russian accession to the World Trade Organization. For example, according the World Bank estimation, Russian membership in the WTO will bring 11% of the GDP growth annually.

Another advantage for the country can be defined as opportunities for the Russian exporters to trade on the international markets with reduced tariffs, quotes and other eliminated trade barriers.

According to some experts; this membership allows Russian consumers to choose a mong wide range of products with comfortable prices.

However most of the economists have come to the conclusion that beneficial influence of the accession to the economy can be in the long-run period, but in the short-term perspectives Russia will face with certain challenges primarily concerned with the structural changes in some sectors of economy. The agriculture is one of these sectors.

Thus, Russian membership in the World Trade Organization forces country to change its trade and economic laws according to the international standard. First of all, it is

necessary to transform and change financial and accounting systems of the Russian firms and companies to the International Financial Reporting Standards (IFRS), which needs time.

On the other hand, Russian accession to the WTO influenced on the agricultural sector. This question was studied by economists Vasily Erokhin in his article “WTO Agreement on Agriculture and its Implication on Rural Development Policies in Russia”. Author payed attention to the changes in the agricultural policy of Russia after the accession. He mentioned that Ministry of Agriculture of the Russian Federation has already developed so-called “road maps” devoting to adapt domestic agricultural and rural policies according to the WTO requirements. This program includes definite measures of tariff and non-tariff regulations of agricultural products imports to Russia and meets the requirements of the Agricultural Agreement, which was negotiated during the Uruguay Round.

At the same time V. Erokhin noticed that all governmental support in terms of the WTO can be implemented in frames of the Green Box. Whereby, author in his article proposed to regulate Russian agricultural market through specific types of farmers support such as direct payments to producers unrelated to the final price and production volume. Additionally, implementation of the combination of tariff quotas, sanitary and phytosanitary measures can mean essential support for producers. The author mentioned that such practices are widely used in some European countries and the United States.²⁶

Thus, according to Erokhin investigations it is clearly outlined possible challenges and problems which Russia has to solve during the transition period of the WTO membership.

Russian accession to the WTO could also lead to improvements in the international trade policy. However, since 2012 the situation is changed on the global market.

Modern international trade policies are represented with sanctions, especially in the agricultural sector. Thus it is clear that membership in the WTO doesn't mean any kind of legal and economic defense.

²⁶ EROKHIN, V. 2014. WTO Agreement on Agriculture and its Implication on Rural Development Policies in Russia. *EU agrarian Law*, 3(1). pp.31-36. DOI: 10.2478/eual-2014-0005.

The disadvantages of the WTO accession Russia has already felt. The main drawbacks of such cooperation we can define as problems connected with food security.

Food security has two main aspects - the extent of imported food penetration and often poor quality of the product. By definition of the Russian economist Sergei Glazyev, in terms of food security, the maximum permissible level of the imports share in domestic food consumption level is equal to 25%. For example, in Kazakhstan the share of poultry meat imports is more than 70%. In Russia, the share of imported products in the domestic market is also higher than 30%.²⁷

Another equally important issue in the field of agriculture is to regulate trade of genetically modified products (GMP). Kazakhstan, Russia already faced with the problem of regulation of the GMF import, which, as shown by many studies, has a negative impact on human health.

At the same time as the World Trade Organization new member Russia has to change its tariff policy. The negotiations about tariff restrictions were held bilaterally with the United States, the European Union, and members of Cairns group of agricultural exporters (Argentina, Australia, Bolivia, Brazil, Canada, Chile, Costa Rica, Colombia, Guatemala, Indonesia, Malaysia, New Zealand, Pakistan, Paraguay, Peru, Philippines, South Africa, Thailand, and Uruguay). According to the WTO, Russia agreed to reduce tariffs for agricultural production in the following way:

- dairy products to 14.9% from 19.8%;
- cereals to 10.0% from 15.1%;
- oilseeds, fats, and oils to 7.1% from 9.0%;
- wood and paper to 8.0% from 13.4%.

Such changes in tariffs restrictions will influence on the Russian agricultural sector competitiveness both on the local and international markets.

In terms of the most sensitive products which can suffer from implementation of new tariff changes are meat, dairy products, rice, sugar and seasonal vegetables. Before the

²⁷ ASHKHATOVA, L.I. BULNINA I.S. 2014. Quality of life (QOL) improvement as a strategic resource of sustainable social and economic development of a region. *Life Science Journal*, 11(6), pp. 354-357. ISSN:1097-8135.

WTO accession the local production of these goods were highly protected with governmental support through tariff custom regulation.²⁸

Thus, according to the WTO, Russia will set and bind its tariff at the certain types of products (Table 2).

Table 2- Tariffs within TRQ and without TRQ for several products, %

Products	Tariff within TRQ	Tariff outside TRQ
beef	15%	55%
pork	0%	65%
selected poultry products	25%	80%
some whey products	10%	15%

Source: World Trade Organization, News Items, Working Party Seals the Deal on Russia's Membership Negotiations, November 10, 2011

It is important to notice that accession to the WTO involves for agriculture sector of new accessed countries certain risks. WTO rules do not take into account the existing differences, between the natural and economic conditions of agriculture in different countries, the specificity of the last decades of transition economies, which were characterized by significant falling of agricultural production in Russia after Soviet Union collapse.

Now the situation is changing, and the agricultural sector needs special conditions for development, which is primarily connected with the government's support to the sector (Figure 6).

²⁸ SUTYRIN S., LOMAGIN N., SHEROV-IGNATIEV V., NAZAROVA M., LISITSYN N. 2012. Russia's Accession to the WTO: Major commitments, possible implications. *International Trade Centre*. [Online]. Available at: <http://www.intracen.org/uploadedFiles/Russia%20WTO%20Accession%20English.pdf>. [Accessed: 2015, September 24].

Figure 6 -Agricultural support in Russia, % of gross farm receipts, 2000 – 2014



Source: Organization of Economic Cooperation and Development, 2014, own processing

The Figure above shows changes in the amount of the producers' support in Russia during 15 years. Before Russian accession to the World Trade Organization the government expenditures to this sector were increasing, after it is declining because of the WTO rules and regulations.

On the other hand, the world's largest food exporters (USA, Australia, EU) have more favorable natural and economic conditions for agriculture. At the same time - exporting countries with well-established and powerful agro-industrial complex have historically within the organization significant preferences. They still widely use export subsidies in agriculture, which is not available for acceding countries. Despite of some improvements in the agricultural sector in recent years, Russia is net importer of agricultural products, while the US and other developed countries are net exporters and retain a high level of self-sufficiency. In the United States and France, the level of self-

sufficiency is 100%, Germany - 93%, in Italy - 78%, in Japan, with its huge population and limited area, - 40%.²⁹

Thus, it is possible to conclude that Russian accession to the World Trade organization has both positive and negative effects. On the one hand, this membership gives additional opportunities for Russia to gain foreign markets of the organization's members and harmonize its legislative system according to the WTO requirements and rules. These changes are increasing the potential foreign investments to the Russian economy, because of improved legislation. Additionally, WTO membership extends the opportunities for products exports to the European Union and other countries. Country gained the chance to settle economic disputes related with anti-dumping cases in frames of the WTO.

On the other hand, the government support to agricultural sector is the important part of the economic growth. However, in the conditions of the WTO membership it is difficult to realize for new accessed countries. According to the WTO rules Russia has to reduce expenditures to agricultural sector and create favorable international trade policy for import-products, which is difficult to realize in terms of the present sanctions war.

²⁹ HOEKMAN, B. 2004. Developing Countries and the WTO Doha Round: Market Access, Rules and Differential Treatment. *Journal of Economic Integration*, 19(2), pp.205-229 [Online]. Available at: <http://www.jstor.org/stable/23000779>. [Accessed:2015,September 21].

5. Present Russian agricultural trade structure. Influence of the agro-food production on the GDP growth

5.1 Agricultural and food sectors of the Russian Federation

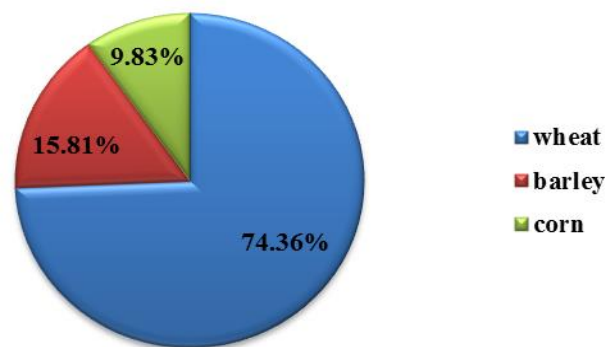
Agricultural and food sectors are crucial points of the country's economy. The wealth and prosperity of all nations depend on the correct implemented agricultural policy.

Russian agro-food sector is a dynamic system which is always developing and changing because of the domestic and foreign factors.

One of the most profitable products of the Russian agricultural sector is grains. According to Rosstat (Federal State Statistic Service) in 2015, the gross yield of grain and leguminous crops was 104.3 million tons (comparing with 2014 it was 105.3 million tons). Grains export from 1 July to 10 February 2015/16 totaled 23.4 million tons (which is less than 1.0% for the period from 1 July to 10 February 2014/15). This number includes:

- ✓ wheat - 17.4 million tons(-6.4% comparing with the last year);
- ✓ barley - 3.5 million tons (-0.2%);
- ✓ corn - 2.3 million tons (in 1.9 times more than it was last year).

Figure 7 - The structure of the grain exports in the season 2015/16 (July - February), %



Source: Federal Custom Service of Russia, 2016, own processing

The decline of the grains export is not essential and primarily connected with the yields decreasing. For the period from 1February 10, 2016 it was exported 891.4 thousand tons of grain (2.4 times more than in the same period of 2015).Whereby Russia is still one of the leaders in grains exports, mostly including export of wheat and barley.

However, there are some more products which deserve attention too. For example, sugar, which production is expressed with high import values and makes Russia its net importer. However, recently this tendency is declining. For instance, from 1 to 31 January 2016 it was imported 15.4 thousand tons of raw cane sugar, that in 9,4 times less than in the same of 2015.³⁰ Noticeable that the scale related to the custom duties to raw sugar prices at the New York Mercantile Exchange (NYMEX) affects to the volume of the sugar imports to Russia.

At the same time Russian sugar production is increasing if compare with results of the previous year. The volume of sugar production in 2015 in Russia amounted about 5.7 million tons, which is higher in 9.5% than it was in 2014.

Nevertheless the considerable value of imports in Russia is mainly concerned with the meat market. But at the same time now it is clearly outlined that this parameter is falling down, especially in terms of poultry imports. Such type of market changing is an advantage for domestic producers. New technological processes, investments and concessional credits farmers got the opportunity to increase their production (Table 3).

Table 3 – Production of livestock and poultry for slaughter from the beginning of the year, thousand tons

Production indicators (all categories of farms)	2014	2015	Changes
Total cattle and poultry:	12 912.4	13 451.4	+4.2% ▲
including:			
cattle	2 911.0	2 879.5	-1.1% ▼
pork	3 823.8	3 969.8	+3.8% ▲
sheep and goats	459.6	455.8	-0.8% ▼
poultry	5 580.3	6 009.7	+7.7% ▲
other types of livestock	137.7	136.7	-0.8% ▼

Source: Federal State Statistic Service, 2016, own processing









³⁰ Official website of the *Federal Custom Service of Russia*. [Online]. Available at: <http://www.customs.ru/> [Accessed: 2016, February 28].

According to the Table 3 it is possible to conclude that the total increase of the cattle and poultry production is gained because of the increased production of the poultry and pork. Noticeable that poultry production is higher than it was in the previous year for 7.7%, which indicates the fast-growing production possibilities of this industry. It mainly concerned with comparatively easy opportunities to raise poultry than other types of livestock.

Under the current conditions and government's policy of import substitution Russian meat producers have to increase their production and to be oriented on the exports. As we see the situation with poultry and partially with pork is much better than with meat of cattle, sheep and goats. The purpose of the government to reach self-sufficiency in these sectors needs time and additional farmers' support, which is eliminated after the Russian accession to the World Trade Organization.

Another important point in the Doctrine of Food Security is dairy products. This issue is improving and production is increasing (Table 4).

Table 4 – Production of dairy products, thousand tons

Production indicators	2014	2015	Changes
Cheeses and chesses products	496.6	581.3	+17.1% 
Butter	251.6	258.9	+2.9% 
Whole milk products	11486.1	11625.7	+1.2% 
-milk liquid processed	5357.4	5377.9	+0.4% 
- buttermilk	986.3	953.7	-1.5% 
-sour cream	538.5	564.9	+4.9% 
-cottage cheese	386.4	413.3	+7.0% 
Milk in solid forms	132.8	112.8	-15.0% 

Source: Federal State Statistic Service, 2016, own processing

According to the table the production of cheese and cheese products was significantly increased comparing 2014 and 2015 years. It can be explained with the sanctions and further import ban for some types of products from the European countries mostly. It stimulated the domestic production in terms of the import substitution program.

At the same time during this period of 2014-2015 the imports of dairy products to Russia are significantly declined in each production sector: cheese and cottage cheese

imports decreased for 21.7%; whole milk products declined in 1.8 times comparing with the previous year indicators.

Self-sufficiency and import-dependency ratios

Food security is the most important factor of the countries' wealth and further development. In 2010 it was approved the Doctrine of Food Security where government established the minimum rates of food domestic production. According to this document, for food security Russia needs to reach the following targets of agricultural production till 2020 year: grain - no less than 95%; sugar - not less than 80%;vegetable oil - not less than 80%; meat and meat products - not less than 85%;milk and dairy products (in milk equivalent) - at least 90%;fish production - not less than 80%;potatoes - not less than 95%; dietary salt - not less than 85%.³¹

In the table below it is possible to estimate the current self-sufficiency ratio in Russia with basic food products.

Table 5 – Self-sufficiency ratio in Russia, basic food products, %

	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
grain	102.5	116.6	113.4	113.3	148.2	93.4	135.9	108.8	139.8	153.9
potato	99.6	94.9	99.1	101.3	100	75.9	113.0	100.8	103.6	104.5
vegetables	85.6	85.4	85.4	82.8	86.8	80.5	93.2	78.9	78.4	80.0
milk	88.3	88.0	84.6	82.4	83.2	80.5	80.8	66.0	62.5	63.7
meat	66.6	64.2	64.4	62.1	65.9	71.5	73.4	60.7	64.0	70.4
eggs	97.5	98.7	98.4	98.9	98.9	98.3	98.0	95.2	95.4	95.6

Source: Federal State Statistic Service, 2016 author's calculations

As we see all indicators of self-sufficiency after 2012 are declining. Primarily it can be related with Russian accession to the World Trade Organization, because the amount of import to country increased and the domestic production was decreasing. At the same time milk and dairy products and meat and meat products are maintain to be the most important parts of the Doctrine, because of their low self-sufficiency ratio. However, comparing the

³¹ THE RUSSIAN FEDERATION. 2010. *Food Security Doctrine of the Russian Federation*. Available at: <http://www.kremlin.ru/news/6752>

indicators of 2014 with 2013 it is possible to say that situation is changing for positive tendencies.

No less important factor is import dependency of the country (Table 6).

Table 6 - Import dependency ratio in the Russian Federation, %

Year	grain	potato	vegetables	milk	meat	eggs
2000	7.4	1.9	17.1	12.9	31.5	3.3
2001	2.6	0.9	17.8	13.2	37.1	2.4
2002	2.2	1.4	16.7	13.1	36.9	1.8
2003	2.4	2.2	20.5	14.7	35.2	2.0
2004	4.2	1.7	21.9	16.7	35.0	2.5
2005	2.2	1.9	24.6	19.0	39.0	2.4
2006	3.3	1.8	26.6	19.3	38.2	2.3
2007	1.6	2.3	23.8	18.4	36.0	2.2
2008	1.4	2.9	16.0	18.8	34.2	2.1
2009	0.6	2.2	17.1	17.8	30.5	1.9
2010	0.6	5.3	19.1	20.6	28.5	2.2
2011	1.0	4.0	18.1	20.3	26.4	2.8
2012	1.7	2.5	17.5	26.8	33.5	3.2
2013	1.6	2.5	17.5	30.9	29.0	2.9
2014	0.9	3.3	17.3	29.7	21.5	3.0

Source: Federal State Statistic Service, 2016, author's calculations

The table shows that the most import dependent food products are milk and dairy products, meat and meat products and vegetables.

Noticeable that after 2012 the import dependency of meat and milk products increased; but in 2014 it was lower than in 2013. This fact can be connected with sanction implemented by Russia in August 2014, which lead to the import decline in the country.

Table 7 – Main indicators of Russian agricultural foreign trade, mln USD, 2014

	Export	Import	Foreign trade balance	Normalized trade balance
grain	4.35	1.19	3.16	0.57
potato	7.72	382.50	-374.78	-0.96
vegetables	16.39	414.44	-398.05	-0.92
milk	23.80	301.95	-278.15	-0.85
meat	104.77	5527.80	-5423.03	-0.96
eggs	19.13	307.99	-288.86	-0.88

Source: Comtrade database, 2014, author's calculations

According to the table 7 the Russian Federation had negative trade balance in the most categories of basic foods. Normalized trade balance shows the relation between foreign trade balance and total value of trade. As we can see from the table for all commodities this value is more than -0.85, except grain (0.57). This indicator shows that the amounts of imports to the country are essentially bigger than exports.

Grain is the only product where Russian foreign and normalized trade balances are positive. The reasons of the trade balance deficit in the agricultural sector of Russia can be connected not only with amount of exports and imports, but also with changes in exchange rates. In 2014 Russian currency became cheaper to the world currencies such as EUR and USD, this factor could influence to the Russian trade performance.

Arriving at the conclusion of the present paragraph it is necessary to notice that during last 2 years Russian production of the most important agricultural products has the positive tendency to increase. In the existing conditions of mutually established restrictions between Russia and its foreign partners the domestic production gave new impetus for development. The government realizes the importance of the local production to provide self-sufficiency of the nation and food security. Next paragraph of this chapter is devoted to the problems of the federal budget expenditures effectiveness in the agricultural sector development and estimated the influence of agriculture on the GDP growth.

5.2 The role of agricultural sector in the economic growth

5.2.1 Research question 1 formulation

*How does the agricultural production influence on country's economic growth?
Is the Russian government effectively supporting this sector of economy?*

Since the Soviet Union collapse the agricultural sector of the Russian Federation was mostly destroyed. Transition to the open market structure of the economy forced country to develop trade relationships with country-importers of agro-food products and decrease the level of domestic production.

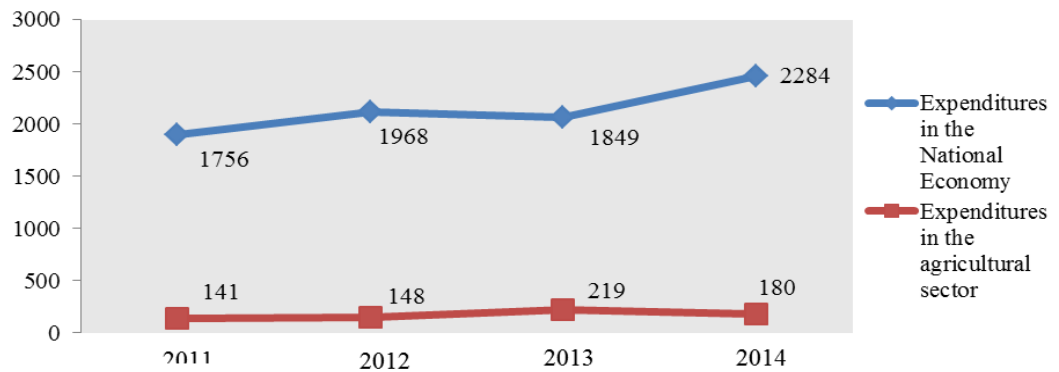
At the same time agricultural sector plays an important role in the GDP formation and economic growth of the country as whole. Whereby, it should be taken into account in distribution of the federal budget expenditures.

In this paragraph it will be showed the effectiveness level of the government support to the agricultural goods production.

5.2.2 Analysis and interpretation of results

Analysis of the dynamics of federal budget expenditures to the agricultural sector (Figure 8) shows that costs have increased significantly compared to 2012. It can be connected with the “State program of agricultural development and regulation of agricultural markets, raw materials and food for 2013-2020”, which came into force in 2013 with the status of the national priority project.³²

Figure 8 – Dynamics of the expenditures for agricultural sector, 2011-2014, bln rub



Source: Russian Federal Treasury and the Federal Service, 2015, own processing

The effectiveness and level of the government support of the agricultural sector can be determined with the dependence of the GDP per capita growth to federal budget expenditures to this sector of countries economy.

For estimation of the effectiveness level it was used the econometric model.

The Gross Domestic Product per capita was chosen as dependent factor, and federal budget expenditures to the agricultural sector as independent (Table 8).

³² Official website of the Ministry of Agriculture of the Russian Federation: [Online]. Available at: <http://mcx.ru/>. [Accessed: 2016, February 14].

Table 8 – Basic data for calculations

Year	GDP per capita (bln rub, Y)	Federal budget expenditures to the agricultural sector (bln rub, X)
2005	0.15	19.5
2006	0.188	26.1
2007	0.233	65.4
2008	0.289	58
2009	0.272	83.1
2010	0.316	35.3
2011	0.381	141.5
2012	0.435	148.8
2013	0.441	219.7
2014	0.49	180

Source: Russian Federal Treasury and the Federal Service, 2015, own processing

It was applied “Package Analysis” and statistical functions of MS Excel to calculate the parameters of the linear regression equation. The matrix of pairwise correlation coefficients is shown in Table 9.

Table 9 - The matrix of pairwise correlation coefficients

	GDP per capita (bln rub, Y)	Federal budget expenditures to the agricultural sector (bln rub, X)
GDP per capita (bln rub, Y)	1	
Federal budget expenditures to the agricultural sector (bln rub, X)	0.902328747	1

Source: Calculated by author

According to the Table 9 the correlation coefficient is 0.9 and it means that the connection between the GDP growth and federal budget expenditures to the agricultural sector is high. Thus if the government increase expenditures to agricultural sector the GDP indicator increases too.

To estimate the effectiveness of the state support we need to make regression analysis and find the linear regression equation’s indicators $Y = a_0 + a_1 X$, (Table 10).

Table 10 - Regression analysis

<i>Indicators</i>	<i>Coefficients</i>	<i>P-value</i>	<i>F-value</i>
<i>Multiple R</i>	0.902328747075616		
<i>R²</i>	0.81419716779905		
<i>Adjusted R²</i>	0.790971813773932		
<i>Standard Error</i>	0.0522748535776469		
<i>Observations</i>	10		
<i>Y-intersection</i>	0.175534404012554	0.000334362599235269	0.000353355916997847
<i>X variable</i>	0.00147294450570336	0.000353355916997848	

Source: Calculated by author

According to the Table 10, $a_0 = 0.18$ and $a_1 = 0.0015$. Thus the linear regression equation is the following:

$$Y = 0.18 + 0.0015 X$$

It is important to notice that the coefficient a_1 shows the X variable level of influence on the Y –intersection. It means that increasing of expenditures to agricultural sector for 1 Ruble will lead the GDP per capita growth for 0.0015 Rubles.

Multiple R = 0.9 and it explains the high level of connection between Y and X. R^2 is equal to 0.81. Whereby, in 81 % cases the changes in the amount of expenditures to the agricultural sector will lead to changes in the GDP per capita. F-value proves the accuracy of the built equation and should tend to zero. In our case this value is 0.0003, which can be explained with big amount of observations, $n = 10$.

P-value indicates the probability error calculated for Y and X values. According to our calculations P-value for Y = 0.0003 and for X= 0.0004. Such low P-values show that the calculated regression coefficients a_0 and a_1 do not contain the errors of their quality and reliability. The evaluation of productive capacity effectiveness can be calculated with formula:

$$\text{Effectiveness} = \frac{\text{Y actual}}{\text{Ycalculated}} \times 100\%,$$

Where Y_{actual} is real value of the GDP per capita, $Y_{\text{calculated}}$ is calculated GDP per capita on the basis of the regression equation. In the table below it is showed the calculated Y and the effectiveness percentage (Table 11).

Table 11 - Calculated and actual values of the efficient indicators

Year	GDP per capita (bln rub, Y actual)	GDP per capita (bln rub, Y calculated)	Effectiveness (E), %
2005	0.150	0.209	71.8
2006	0.188	0.209	89.9
2007	0.233	0.268	86.9
2008	0.289	0.257	112.4
2009	0.272	0.294	92.5
2010	0.316	0.222	142.3
2011	0.381	0.382	99.7
2012	0.435	0.393	110.7
2013	0.441	0.466	94.6
2014	0.490	0.415	118.0

Source: Calculated by author

GPD per capita calculated let us to judge about effectiveness of the federal budget expenditures. If the indicator $E > 1$ it means that government used efficient all resources to the agricultural sector and it led to GPD per capita growth, as it was in 2008, 2010, 2012 and 2014. In all other cases spent money for agro-food production were not enough for the economic growth and GDP reserves to increase. However, received results are ambiguous in terms of the regression parameters perception as they show a direct relationship with GDP per capita.

Thus, in conclusion of this chapter it is possible to notice that agricultural sector plays an important role in the economic growth of Russia. Expenditures to this sector can influence on the GDP formation. Whereby, Russian government should use resources from the federal budget as much as possible efficient taking into account such types of connections between expenditures and GDP growth.

6. Russian foreign trade and membership in the international trade unions and organizations

For further evaluation of the Russian comparative advantages it is necessary to explain main peculiarities of country's trade relations. This chapter is devoted to outline main Russian trade partners in the agricultural sector.

6.1 Russia as an important driver of the Commonwealth of Independent States

The Common Wealth of Independent States was created in 8 December of 1991 by heads of such countries as the Russian Federation, Republic of Belarus and Ukraine, who signed the Treaty of its establishment. Two weeks later in 21 of December, presidents of other 9 (Republic of Azerbaijan, Armenia, Kazakhstan, Kyrgyz Republic, Republic of Moldova, Tajikistan, Turkmenistan, Uzbekistan) sovereign states of former Soviet Union (signed the Protocol to the Treaty and became the members of CIS in Alma-Ata. Georgia joined to the Community in 1993 and in 2009 it officially ceased to be a member of this international organization.

The Commonwealth of Independent States has the main aim to develop the economically, socially and politically its member-states, strengthen the relations of friendship, good neighborhood, inter-ethnic harmony, trust, mutual understanding and mutually beneficial cooperation between the states.

At the present moment CIS countries are faced with certain types of challenges mainly connected with trade relations with republics' foreign partners. Speaking about the agricultural sector in these countries it is important to notice that all states economies more or less depend on this part of production. Food safety and agricultural health management can be defined as main purposes of CIS countries. In the most of the republics the agrarian sector has recovered and is maintaining to develop. Additionally more than a half of CIS members have already accessed to the World Trade Organization, which means that countries have to implement all rules and requirements of the organization.

The Russian Federation plays the key role in the frame of the Commonwealth of Independent Nations. International trade within CIS provides stable development of all countries-participants. The agricultural sector in these trade relations is one of the most important issues of the mutually beneficial cooperation.

In the Table 12 it is shown the product structure Of Russian agricultural and food imports from the CIS, excluding the countries of the Eurasian Economic Union (Armenia, Kazakhstan, Belarus, Kyrgyzstan).

Table 12 - Product structure of Russian agricultural and food imports from CIS (except EAEU) countries, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.02	0.03	0.07	0.05	0.05	0.06	0.15	0.11	0.13	0.19
02	Meat and edible meat offal	24.98	22.6	10.23	0.34	2.39	1.9	4.85	8.76	6.63	5.45
03	Fish, aquatic invert.	0.18	0.33	0.14	0.05	0.08	0.07	0.04	0.02	0.01	0.02
04	Dairy products, eggs, honey	7.9	9.4	16.67	7.72	14.32	13.7	14.6	12.4	14.4	8.22
05	Products of animal origin	0.08	0.06	0.04	0	0	0.04	0.03	0.06	0.14	0.1
06	Live trees, plants, bulbs	0.41	0.36	0.08	0.08	0.11	0.06	0.1	0.09	0.1	0.11
07	Edible vegetable, roots	4.67	3.73	5.06	8.81	6.18	9.6	9.04	7.16	7.7	14.4
08	Edible fruit, nuts, melons	5.89	6.57	13.06	25	15.32	21.2	17.9	16.1	12.2	14.37
09	Coffee, tea, mate and spices	0.21	0.14	0.05	0.2	0.22	0.38	0.45	0.66	0.66	0.66
10	Cereals	1.13	1.24	3.7	1.74	3.72	0.24	1.03	0.34	0.69	1.08
11	Milling products, malt	0.54	0.4	0.31	0.56	1.24	0.75	0.77	0.75	1.01	0.8
12	Oil seeds, oleagic fruits	0.56	0.46	0.6	0.8	1.19	1.62	0.98	1.09	3.09	4.63
13	Lac, gums, resins	0.01	0.02	0.01	0.01	0	0.01	0.01	0.01	0.01	0.01
14	Vegetable plaiting materials	0.14	0.22	0.17	0.1	0.06	0.01	0	0.01	0.01	0.01
15	Animal, vegetable fats, oils	8.43	9.17	5.18	5.4	14.9	9.55	7.39	2.23	2.12	1.9
16	Meat, fish and seafood prep	1.24	1.38	1.49	0.63	0.97	1.11	1.19	1.9	1.67	1.28
17	Sugars and sugar confect.	2.32	5.01	1.54	1.79	1.17	3.49	3.25	2.96	2.65	3.5
18	Cocoa and cocoa prep.	0.09	0.12	7.08	7.99	11.51	12.3	14.3	16	13.1	8.77
19	Cereal, flour, starch, milk prep.	0.12	0.08	1.98	10.1	2.83	2.7	3.7	4.9	5.5	7.15
20	Vegetable, fruit, nut, food prep.	6.67	5.87	5.26	5.69	6.1	6.03	6.09	7.48	8.04	7.05
21	Miscellaneous edible prep.	1.87	0.96	1.45	0.78	0.9	0.91	1.34	2.31	8.33	7.21
22	Beverages, spirits and vinegar	26	24.6	23.9	19.6	15.86	13	11	13	10.9	10.5
23	Residues, wastes of food industry	1.76	1.66	0.32.	0.15	0.15	0.12	0.42	0.45	0.03	1.2
24	Tobacco, tobacco substitutes	4.78	5.49	1.6	2.27	0.75	0.91	0.95	0.76	0.77	1.31

Source: Comtrade database, 2016, author's calculations

Analyzing the Table 12 we can notice that Russia imports mostly the following products from the CIS: “Meat and edible meat”, “Dairy products, eggs, honey”, “Edible fruits, nuts, vegetable, other preparations” and “Beverages, spirits and vinegar”. However, during 14 years the amount of meat imports decreased significantly: in 2014 it was just 5.45% in the total imports, while in 2000 this indicator was 24.98%. The same situation is with beverages, spirits and vinegar.

On the other hand, imports of edible fruits, nuts, and vegetables are increased in several times and share of these products was more than 14% in 2014.

The next table shows agricultural and food exports from Russia to the Commonwealth of Independent States.

Table 13 - Product structure of Russian agricultural and food exports to CIS (except EAEU) countries, %

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
<i>01</i>	Live animals	0.23	0.04	0.05	0.03	0.03	0.08	0.10	0.12	0.19	0.43
<i>02</i>	Meat and edible meat	0.10	0.09	0.03	0	0.02	0.03	0.02	0.00	0.00	0.00
<i>03</i>	Fish, aquatic invertebrates	2.03	1.70	0.82	1.37	0.74	0.74	1.02	1.14	0.82	0.50
<i>04</i>	Dairy products, eggs	9.15	6.98	5.85	7.28	7.06	6.00	4.81	4.05	3.33	2.57
<i>05</i>	Products of animal origin	0.26	0.22	0.07	0.12	0.10	0.03	0.04	0.03	0.03	0.03
<i>06</i>	Live trees, plants, bulbs	0.01	0.01	0.03	0.01	0.01	0.02	0.02	0.02	0.03	0.02
<i>07</i>	Edible vegetables and roots	0.62	0.52	0.58	0.52	0.54	0.79	0.63	0.58	0.62	0.57
<i>08</i>	Edible fruit, nuts	0.29	0.20	0.29	0.15	0.15	0.08	0.05	0.06	0.12	0.08
<i>09</i>	Coffee, tea, mate and spices	1.52	1.32	4.50	5.22	5.45	5.24	4.46	4.13	4.09	3.05
<i>10</i>	Cereals	21.14	17.43	17.37	11.65	15.81	4.85	7.79	8.53	11.17	17.10
<i>11</i>	Milling products, malt	1.61	1.37	2.48	2.97	6.30	1.89	6.70	2.38	2.09	2.74
<i>12</i>	Oil seeds, oleagic fruits	0.36	0.19	0.16	0.11	0.27	0.10	0.26	0.27	0.35	0.40
<i>13</i>	Lac, gums, resins	0	0.01	0.01	0	0	0.01	0.01	0.02	0	0.02
<i>15</i>	Animal, vegetable fats, oil	3.50	2.11	1.97	2.34	4.26	6.23	6.04	15.10	13.96	15.95
<i>16</i>	Meat, fish and seafood prep.	4.49	3.74	5.01	5.83	5.22	4.37	3.41	3.19	2.64	1.48
<i>17</i>	Sugars and sugar confect.	21.77	11.48	6.67	5.35	4.34	4.87	6.47	4.20	3.93	2.50
<i>18</i>	Cocoa and cocoa prep.	13.25	9.91	12.33	9.98	9.96	12.14	11.20	9.51	10.51	8.82
<i>19</i>	Cereal, flour, starch, milk prep.	6.26	4.98	9.52	7.26	8.86	9.29	8.11	7.39	7.86	7.89
<i>20</i>	Vegetable, fruit, nut, food prep.	1.09	1.87	2.31	4.14	2.78	1.52	1.24	1.86	2.92	2.50
<i>21</i>	Miscellaneous edible prep.	1.79	6.25	10.23	9.71	10.67	11.47	9.94	9.82	10.83	4.98
<i>22</i>	Beverages, spirits and vinegar	4.25	6.64	3.57	8.80	4.94	6.04	5.81	5.5	5.74	4.76
<i>23</i>	Residues, wastes of food industry	1.88	3.36	3.47	3.18	2.24	2.89	3.61	2.66	2.80	3.33
<i>24</i>	Tobacco, tobacco substitutes	4.37	19.59	12.69	13.97	10.23	21.33	18.26	19.42	15.97	20.27

Source: Comtrade database, 2016, author’s calculations

According to the Table 13 the main food exports from Russia to CIS countries are: “Cereals”, “Animal, vegetable fats, oil”, “Tobacco and tobacco substitutes”. However the share of these products was changed significantly during the time. For instance, in 2000 share of cereals exports in total value was more than 21 %. In recent years this indicator is decreased down to 17%. The positive dynamics of exports to CIS can be observed in case of animal and vegetable fats and oils. During 14 years the amount of products share increased more than in 5 times and in 2014 it was about 16%. Almost the same situation is with tobacco and tobacco substitutes. Comparing two tables (12 and 13) it is possible to notice that Russia imports from CIS countries “Vegetable plaiting”, but doesn’t export these categories of products.

To estimate Russian and CIS intra-industry trade in the agricultural commodities it was calculated the Grubel-Lloyd index.

Table 14- Russian-CIS (except EAEU) intra-industry trade, Grubel-Lloyd index, 2014

Code	Product label	Export, USD	Import, USD	GL index
01	Live animals	7928225	2861142	0,53
02	Meat and edible meat offal	66803	81840443	0,00
03	Fish, crustaceans, mollusks, aquatic invertebrates	9057818	295643	0,06
04	Dairy products, eggs, honey, edible animal products	46890343	123326331	0,55
05	Products of animal origin	587089	1464069	0,57
06	Live trees, plants, bulbs, roots, cut flowers	364140	1636379	0,36
07	Edible vegetables and certain roots and tubers	10347576	216076988	0,09
08	Edible fruit, nuts, peel of citrus fruit, melons	1537452	215683398	0,01
09	Coffee, tea, mate and spices	55516825	9891829	0,30
10	Cereals	311659533	16156201	0,10
11	Milling products, malt, starches, inulin, wheat glute	50003072	12001452	0,39
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	7303640	69536376	0,19
13	Lac, gums, resins, vegetable saps and extracts	449353	145890	0,49
14	Vegetable plaiting materials, vegetable products	4485	128102	0,07
15	Animal, vegetable fats and oil, cleavage products	290818024	28540442	0,18
16	Meat, fish and seafood preparations	27013720	19210407	0,83
17	Sugars and sugar confectionary	45542760	52480515	0,93
18	Cocoa and cocoa preparations	160819940	131674968	0,90
19	Cereal, flour, starch, milk preparations and products	143781156	107292645	0,85
20	Vegetable, fruit, nut and other preparations	45600399	105791659	0,60
21	Miscellaneous edible preparations	90776022	108215508	0,91
22	Beverages, spirits and vinegar	86708612	158742967	0,71
23	Residues, wastes of food industry, animal fodder	60722246	18070144	0,46
24	Tobacco and manufactured tobacco substitutes	369561770	19651631	0,10

Source: Comtrade database, 2016, author’s calculations

The Grubel-Lloyd index shows the existence of intra-industry trade between two sides. If GL index is equal zero it means that there is no intra-industry trade, but only inter-industry trade; country just exports or imports without some exchange trade relations.

In case of the Russian Federation and chosen countries of the Commonwealth of Independent States there is existence of intra-industry trade in such items where the index is close to 1: "Meat, fish and seafood preparations", "Sugars and sugar confectionary", "Cocoa and cocoa preparations", "Cereal, flour, starch, milk preparations and products", "Miscellaneous edible preparations", "Beverages, spirits and vinegar".

Thus all products mentioned above are the most important agricultural foods in the trade relations between Russia and the CIS countries.

6.2 New possibilities in the Eurasian Economic Union

Eurasian Economic Union is a new type of cooperation, which is aimed to increase trade and economic possibilities of its members through tight relationships. All members of the EAEU at the same time are the members of the Commonwealth of the Independent States: Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic and the Russian Federation.

At the present moment EAEU is comparatively young organization, however have a good potential. Thus, the gross domestic product in 2014 of the EAEU was 2.2 trillion USD (3.2% of the world's GDP); industrial production in 2014 – 1.3 trillion USD (3.7% of the global industrial production); volume of external trade with third countries in 2014 was 877.6 billion USD.³³

However, the Russian Federation is the main player in this cooperation, because more than half of these indicators' performances are results of the Russian economic growth. At the same time cooperation with Eurasian Economic Union countries in the agricultural sector provides Russia strong trade relations.

³³ Official website of the *Eurasian Economic Union*: [Online]. Available at: <http://www.eaeunion.org/> . [Accessed: 2016, October 11].

Table 15- Product structure of Russian agricultural and food imports from EAEU, %

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
<i>01</i>	Live animals	0.01	0.01	0	0	0.08	0	0.10	0.69	0.25	0.01
<i>02</i>	Meat and edible meat offal	0.14	0.88	0.06	0.06	0.15	0	0	14.15	14.81	16.49
<i>03</i>	Fish, , aquatic invertebrates	1.53	10.10	2.53	4.15	3.71	1.54	6.31	1.96	2.78	3.41
<i>04</i>	Dairy products, eggs, honey	0.08	0.88	0.49	1.18	0.81	1.97	0	48.16	47.19	44.46
<i>05</i>	Products of animal origin	0.01	0	0.01	0	0.01	0	0.18	0.07	0.06	0.05
<i>06</i>	Live trees, plants, bulbs, roots	0.06	0.09	0.03	0.03	0.03	0.18	0.06	0.14	0.21	0.17
<i>07</i>	Edible vegetables and roots	7.68	13.85	12.10	21.82	22.69	18.26	14.48	1.96	3.00	3.90
<i>08</i>	Edible fruit, nuts, melons	14.29	7.04	10.41	20.11	39.44	36.42	5.98	2.27	2.76	3.23
<i>09</i>	Coffee, tea, mate and spices	0.01	0.13	0.19	0.21	0.22	0.81	1.20	2.09	0.58	0.21
<i>10</i>	Cereals	56.36	17.07	43.58	31.36	10.80	0	0	3.98	6.76	2.72
<i>11</i>	Milling products, malt	3.64	1.53	2.42	0.58	0.42	0.01	0.02	0.86	1.18	0.98
<i>12</i>	Oil seeds, oleagic fruits	0.31	0.76	0.22	0.18	0.75	0.28	0.46	1.27	0.19	0.12
<i>13</i>	Lac, gums, resins	0	0.02	0.02	0	0	0.02	0.04	0.02	0.04	0.03
<i>14</i>	Vegetable plaiting materials	0	0.09	0.03	0	0	0	0	0.01	0.01	0
<i>15</i>	Animal, vegetable fats and oil	0.10	0.21	0.12	0.01	0.01	0	0.01	0.52	0.30	0.28
<i>16</i>	Meat, fish and seafood prep.	0.13	0.19	9.28	0.06	0.01	0.04	0.22	6.84	7.04	7.81
<i>17</i>	Sugars and sugar confectionary	0.20	0.96	3.98	2.82	1.53	0	0.01	0.89	0.96	4.24
<i>18</i>	Cocoa and cocoa preparations	0.01	0.01	0.01	0	0.01	0	0	1.17	0.83	1.29
<i>19</i>	Cereal, flour, starch, milk prep.	0.28	3.27	1.00	0.91	1.08	0	0.04	2.00	1.21	1.42
<i>20</i>	Vegetable, fruit, nut prep.	0.66	1.39	0.57	0.81	0.76	2.07	4.90	0.95	0.87	1.12
<i>21</i>	Miscellaneous edible prep.	0.02	0.10	0.05	0.11	0.11	0.33	0.64	0.65	0.65	0.80
<i>22</i>	Beverages, spirits and vinegar	4.72	31.53	9.38	11.88	15.70	32.65	58.32	7.87	6.25	4.91
<i>23</i>	Residues, wastes of food industry, animal fodder	0.28	3.76	0.80	0.83	0.48	0	0	0.96	1.67	2.06
<i>24</i>	Tobacco, tobacco substitutes	9.49	6.13	2.71	2.88	1.19	5.39	7.03	0.51	0.40	0.28

Source: Comtrade database, 2016, author's calculations

The Table 15 shows Russian agricultural and food imports from EAEU countries.

The main traded products in the presented list can be:

- "Meat and edible meat offal" as in 2014 Russian Federation imported about 16.5% of its total share;

- “Dairy products, eggs, honey”. The amount of these products importing is increased significantly during 14 years and now its share is more than 44%. Noticeable that Russia stopped to purchase dairy products, eggs and honey in 2011. In the next year the country’s imports of these products was already 48.16% in the total value.
- “Cereals” is necessary to emphasize because of import value downfall during last 14 years. It primarily concerned with increasing domestic production of cereals in Russia.

Eurasian Economic Union is an area of Russian exports possibilities and developments (Table 16).

Table 16 - Product structure of Russian agricultural and food exports to EAEU, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.26	0.29	0.16	0.01	0.21	0.00	0.00	0.25	0.18	0.38
02	Meat and edible meat offal	0.85	0.30	0.04	0.01	0.15	0.00	0.00	0.95	2.16	1.95
03	Fish, aquatic invertebrates	4.51	3.21	2.12	1.82	1.11	1.18	1.58	1.90	2.87	3.20
04	Dairy products, eggs	12.56	12.30	15.78	11.63	10.51	4.09	3.99	7.62	7.86	7.37
05	Products of animal origin	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.09	0.08	0.05
06	Live trees, plants, bulbs	0.04	0.03	0.05	0.04	0.03	0.04	0.00	0.02	0.06	0.04
07	Edible vegetables and roots	0.76	0.70	0.26	0.49	0.49	0.32	0.28	0.28	0.35	0.31
08	Edible fruit, nuts, melons	1.46	2.55	3.10	1.01	2.09	0.08	0.12	1.67	1.50	1.30
09	Coffee, tea, mate and spices	1.16	0.87	0.60	0.73	0.84	1.00	0.78	1.86	2.13	1.99
10	Cereals	0.83	1.37	0.02	4.60	5.46	18.58	19.07	4.68	3.18	2.81
11	Milling products, malt	1.82	1.31	0.46	1.17	1.39	2.01	6.37	1.22	1.32	1.55
12	Oil seeds, oleagic fruits	3.01	1.37	0.75	1.49	1.32	0.29	0.27	1.36	0.97	1.04
13	Lac, gums, resins	0.02	0.03	1.38	0.03	0.02	0.05	0.07	0.09	0.13	0.15
15	Animal, vegetable fats	12.56	10.67	0.02	7.47	12.79	15.05	14.42	0.00	10.12	9.58
16	Meat, fish and seafood prep.	7.24	4.65	7.72	4.99	5.89	1.54	0.86	11.71	4.35	3.74
17	Sugars and sugar confection.	14.33	6.80	5.13	5.12	1.82	1.56	4.47	3.95	3.81	3.48
18	Cocoa and cocoa prep.	11.43	15.14	6.45	10.12	8.17	15.04	15.37	4.47	12.58	12.25
19	Cereal, flour, starch, milk prep.	8.45	10.20	14.92	12.76	10.92	6.40	6.07	11.77	11.94	12.81
20	Vegetable, fruit, nut and other preparations	1.78	2.34	1.23	3.24	2.74	1.05	1.29	9.04	5.16	5.83
21	Miscellaneous edible prep.	7.95	8.86	17.57	14.33	12.89	4.54	5.45	4.28	10.44	10.20
22	Beverages, spirits and vinegar	4.79	9.67	15.99	12.50	11.99	15.14	11.93	13.44	7.66	6.32
23	Residues, wastes of food industry	0.64	2.45	2.11	1.66	3.39	1.38	0.70	8.80	3.60	6.43
24	Tobacco, tobacco substitutes	3.49	4.88	4.15	4.79	5.76	10.68	6.90	2.81	7.56	7.23

Source: Comtrade database, 2016, author’s calculations

In 2000 the Russian exports of “Diary products, eggs, honey” and “Sugar and sugar confectionaries” were most traded. However in 20014 the situation was changed as their values were dropped significantly.

The positive dynamics of growth showed “Cereal, flour, starch, milk preparations” and “Miscellaneous edible preparations”. During the investigating period the amount of these products exports increased, because of domestic production development. ”Tobacco and tobacco substitutes” showed significant rise in 2010, but from next year it has tendency to decrease.

To estimate the Russian intra-industry trade with Eurasian Economic Union countries it was used Grubel-Lloyd index (Table 17).

Table 17- Russian-EAEU intra-industry trade, Grubel-Lloyd index, 2014

Code	Product label	Export, USD	Import, USD	GL index
01	Live animals	11597492	2861142	0.40
02	Meat and edible meat offal	60088783	81840443	0.85
03	Fish, crustaceans, aquatic invertebrates	98477756	295643	0.01
04	Dairy products, eggs, honey, edible animal products	227030406	123326331	0.70
05	Products of animal origin	1492536	1464069	0.99
06	Live trees, plants, bulbs, roots, cut flowers	1297384	1636379	0.88
07	Edible vegetables and certain roots and tubers	9555006	216076988	0.08
08	Edible fruit, nuts, peel of citrus fruit, melons	39961998	215683398	0.31
09	Coffee, tea, mate and spices	61298345	9891829	0.28
10	Cereals	86398256	16156201	0.32
11	Milling products, malt, starches, inulin, wheat glute	47645727	12001452	0.40
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	32061766	69536376	0.63
13	Lac, gums, resins, vegetable saps and extracts	4607014	145890	0.06
14	Vegetable plaiting materials, vegetable products	55703	128102	0.61
15	Animal, vegetable fats and oil, cleavage products	295139718	28540442	0.18
16	Meat, fish and seafood preparations	115146979	19210407	0.29
17	Sugars and sugar confectionary	107109786	52480515	0.66
18	Cocoa and cocoa preparations	377209796	131674968	0.52
19	Cereal, flour, starch, milk preparations and products	394617774	107292645	0.43
20	Vegetable, fruit, nut and other preparations	179512629	105791659	0.74
21	Miscellaneous edible preparations	314199186	108215508	0.51
22	Beverages, spirits and vinegar	194484229	158742967	0.90
23	Residues, wastes of food industry, animal fodder	197917725	18070144	0.17
24	Tobacco and manufactured tobacco substitutes	222693147	19651631	0.16

Source: Comtrade database, 2016, author’s calculations

“Products of animal origin” have the highest value of Grubel-Lloyd index. It means that Russian and EAEU exports and imports were approximately the same in 2014. The index of “Meat and edible meat offal” intra-industry trade was 0.85, where imports to Russia exceeded exports by 21751660 USD. The lowest value of intra-industry trade can be found in such category of products as “Fish, crustaceans, aquatic invertebrates” (GL index is 0.01). Exports from Russia are significantly more than imports from Eurasian Economic Union, which was caused by the domestic production increase.

6.3 Russia and its activities within the BRICS

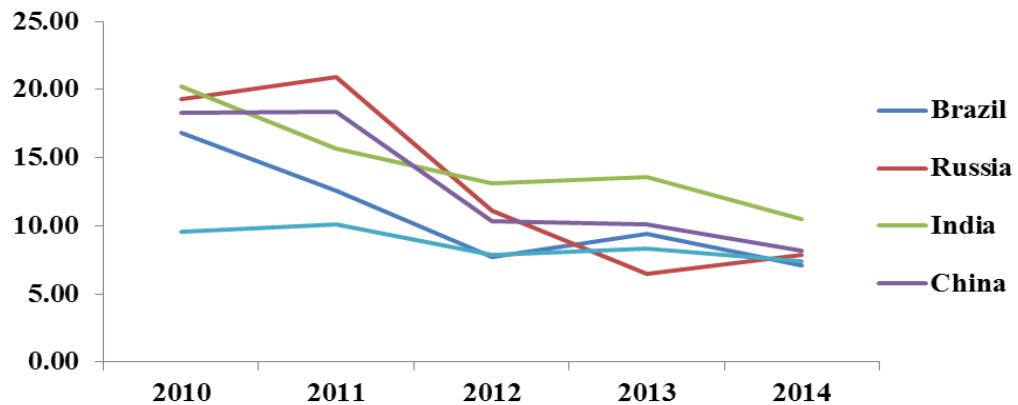
In June 2009, after the meeting in Ekaterinburg of Brazilian, Russian, Indian, Chinese heads the acronym BRIC, which was created by the Goldman & Sachs expert Jim O’Neil, became reality. At the present moment there is one more country joined to this cooperation: South Africa. Thus, it is called now BRICS.

Members of BRICS can be defined as countries with 42% of the world population, 45% of the labor force, 22% of the world territory and 15% of the global GDP. Attractiveness of the BRICS countries is explained with several factors. For example, China attracts investors with quite cheap qualified labor force. Despite of many economic problems India is on the way of the technological development. Russia is rich with natural resources, can be defined with permanently growing domestic demand and high level of education rate. Brazil is a leader in the agricultural sector. Country is always developing in the technological sphere; it is the main world’s supplier of the biofuels.³⁴

However, the recent years these countries are not successful in their economic growth. It is noticeable, that most of the countries decline has begun since 2011 year and it is maintaining the same tendency (Figure 9).

³⁴ IVANOVSKY Z. V. 2016. *BRICS in the mirror of the world press*. [Online]. Available at: <http://www.brics.mid.ru/>. [Accessed: 2016, January 12].

Figure 9 – Annual GDP growth rate in BRICS countries, 2010-2014, %



Source: Organization for Economic Cooperation and Development, 2015, own processing

Mostly the decline of economic growth in the BRICS countries are interconnected and can be expressed through decline of the oil prices, which negatively influenced on the Russian economy: attempts of China to gain geopolitical superiority over its neighbors in eastern and south-east Asia have led to increase tensions in the region. Brazil has faced with domestic policy problems, which led to the country's destabilization. Defense of the Russian geopolitical interest in Ukraine and the Middle East affected negatively on its economy, particularly because of the sanctions from the United States and European Union.³⁵

However, these restrictions forced Russian side to apply sanctions against the Western countries; particularly it deals with agricultural sector. The participation in BRICS will stimulate changes in the directions of the trade relations of the Russian Federation. From this point of view such kind of membership will help all countries to overcome present crises and find new ways of development.

³⁵ WALLERSTEIN, I. 2015. BRICS: the myth of our time. [Online]. Available at: <http://inosmi.ru/economic/20160113/235038002.html> [Accessed: 2015, September 16].

Table 18- Product structure of Russian agricultural and food imports from BRICS, %

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
<i>01</i>	Live animals	2.97	41.85	39.87	36.87	39.49	33.75	23.59	32.00	35.76	39.8
<i>02</i>	Meat and edible meat offal	0.06	0.50	1.11	2.48	3.92	3.65	4.24	4.93	5.55	6.19
<i>03</i>	Fish,, aquatic invertebrates	0.14	0.14	0.29	0.20	0.18	0.95	0.9	0.83	0.42	0.14
<i>04</i>	Dairy products, eggs	0.01	0.02	0.05	0.08	0.08	0.05	0.06	0.07	0.06	0.04
<i>05</i>	Products of animal origin	2.41	2.41	4.11	4.19	0.10	4.86	6.77	6.78	7.40	8.22
<i>06</i>	Live trees, plants, bulbs	4.60	2.47	4.68	5.03	12.41	8.42	7.69	10.52	11.28	9.51
<i>07</i>	Edible vegetables, roots	22.48	5.26	4.47	3.02	3.31	2.57	5.27	6.14	5.48	5.32
<i>08</i>	Edible fruit, nuts, melons	6.16	2.12	1.37	1.63	0.32	2.45	0.19	0.67	0.35	0.88
<i>09</i>	Coffee, tea, mate spices	0.20	0.05	0.31	0.17	0.25	0.09	0.71	0.21	0.07	0.03
<i>10</i>	Cereals	2.04	1.97	2.34	1.17	4.90	4.32	3.87	3.52	1.24	6.78
<i>11</i>	Milling products, malt	0.05	0.06	0.21	0.18	0.31	0.60	0.71	1.06	1.06	1.10
<i>12</i>	Oil seeds, oleagic fruits	0.38	1.04	0.53	0.09	0.67	0.16	0.17	0.27	0.22	0.23
<i>13</i>	Lac, gums, resins	0.29	0.67	1.19	1.41	1.56	1.27	1.19	1.44	1.44	1.44
<i>15</i>	Animal, vegetable fats	33.11	21.51	17.89	25.93	13.81	18.12	24.39	5.55	4.62	4.35
<i>16</i>	Meat, fish and seafood	0.27	0.15	0.23	0.02	0.04	0.06	0.05	0.09	0.05	0.27
<i>17</i>	Sugars and sugar confect.	0.06	0.12	0.33	0.15	0.28	0.22	0.17	0.22	0.29	0.28
<i>18</i>	Cocoa and cocoa prep.	0.89	3.83	5.55	6.67	6.85	6.28	6.84	8.11	7.36	1.79
<i>19</i>	Cereal, flour, starch, milk	8.35	4.90	4.83	2.64	2.39	3.14	3.64	4.17	3.57	3.36
<i>20</i>	Vegetable, fruit, nut and other preparations	0.15	0.10	0.23	0.24	0.53	0.42	0.30	0.86	1.12	0.63
<i>21</i>	Miscellaneous edible prep.	0.10	0.40	0.42	0.60	1.76	0.67	0.97	2.21	3.77	2.45
<i>22</i>	Beverages, spirits and vinegar	15.29	10.37	9.98	7.23	6.83	7.94	8.28	10.38	8.90	7.18
<i>23</i>	Residues, wastes of food industry	2.97	41.85	39.87	36.87	39.49	33.75	23.59	32.00	35.76	39.8
<i>24</i>	Tobacco, tobacco substitutes	0.06	0.50	1.11	2.48	3.92	3.65	4.24	4.93	5.55	6.19

Source: Comtrade database, 2016, author's calculations

In the Table 18 we can follow the dynamics of “Meat and edible meat offal” imports during 14 years. It was changed significantly and will maintain the positive tendency to increase in further future. At the same time it is important to mention that declining of “Coffee, tea, and spices” and “Sugars and sugar confectionaries” imports are basically related with increasing share of meat purchasing from BRICS countries.

Export of agricultural commodities from Russia to the BRICS countries is presented primarily with “Fish, aquatic invertebrates” and “Cereals” (Table 19).

Table 19- Product structure of Russian agricultural and food exports to BRICS, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.01	0.23	0.24	0.06	0.16	0.18	0.26	0.11	0.32	0.55
03	Fish, aquatic invertebrates	61.5	78.56	61.39	38.61	59.17	90.26	90.26	76.97	76.64	67.26
05	Products of animal origin	5.06	0.96	1.44	0.24	1.83	0.28	0.52	0.44	1.06	0.88
07	Edible vegetables and roots	0.18	8.54	1.96	0.51	2.14	0.36	3.18	9.98	3.01	1.11
08	Edible fruit, nuts melons	17.6	9.04	27.30	3.35	1.71	0.41	0.26	2.41	0.66	1.10
10	Cereals	1.16	0.46	0.00	53.21	24.46	0.63	3.20	2.59	9.50	15.11
12	Oil seeds, oleagic fruits	11.9	0.21	1.09	0.05	0.49	0.00	0.22	2.00	1.28	2.24
15	Animal, vegetable fats	0.06	0.13	0.09	3.16	7.91	2.92	0.62	1.73	0.55	4.41
18	Cocoa and cocoa prep.	0.04	0.00	1.28	0.54	0.01	0.01	0.01	0.04	0.23	0.51
21	Miscellaneous edible prep.	0.04	0.00	4.32	0.06	0.28	0.04	0.13	0.12	0.07	0.30
22	Beverages, spirits and vinegar	0.17	1.08	0.31	0.12	1.76	0.25	0.24	0.25	0.42	0.58
23	Residues, wastes of food industry	1.45	0.76	0.56	0.06	0.00	4.54	0.85	2.00	2.89	3.91
24	Tobacco and tobacco substitutes	0.8	0.03	0.02	0.03	0.08	0.02	0.25	0.36	3.37	2.04

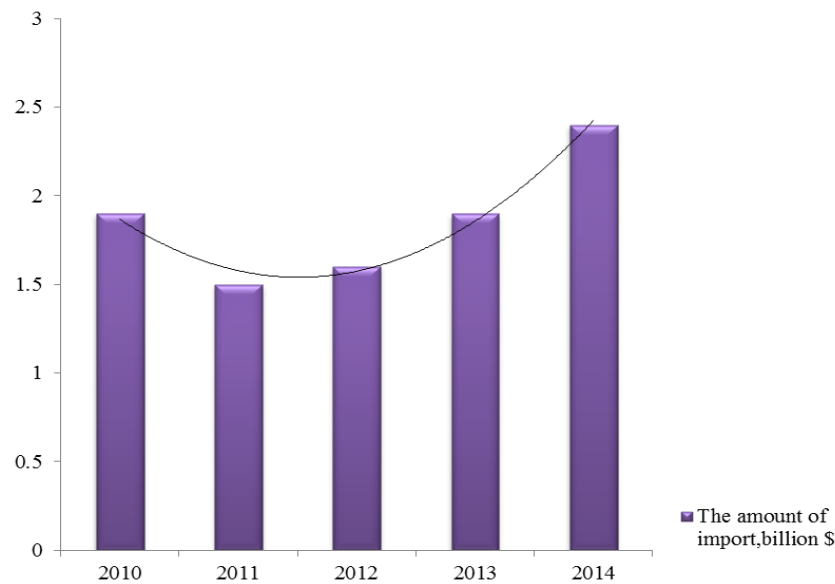
Source: Comtrade database, 2016, author’s calculations

Export of “Oil seeds, oleagic fruits” is also changed significantly with declining of the trade value during 14 years. Most of the items are not in the list as their values are equal zero, no exports of these products from Russia to BRICS countries.

Thus, according to the Tables above the Russian Federation imports more products than exports to the countries of BRICS. The key role in this cooperation plays Brazil as its meat export to Russia influence significantly on the total share of traded products.

If take into account Russian-Brazilian trade it is necessary to admit that during 5 years the meat import from Brazil to Russia is raised (Figure 10).

Figure 10– The amount of import from Brazil to the Russian Federation, 2010-2014, billion USD



Source: Comtrade database, 2016, own processing

In 2013, Russia and Brazil signed an agreement about trade and sanitary requirements of Brazilian pork exports and Russian wheat. However, Brazil is not only the biggest Russian meat importer, but also the country exports sugar, coffee, juices and alcohol. Both states are interested in beneficial cooperation in all area, not only in the agricultural sector. At the present moment Russia exports to Brazil new military technique, particularly helicopters.³⁶

Russian and BRICS intra-industry trade can be defined as mainly low, because both sides are performing as almost net exporters or net importers (Table 20).

The Table below shows that Russia has significant value of intra-industry trade in “Dairy products, eggs, honey, edible animal products” and in “Products of animal origin”. The rest types of products have urgently low values.

³⁶ Irina Sukhoparova, Sanctions effect: Russia to change its economic partners...for the better, 21 Mar, 2014 : <https://www.rt.com/op-edge/russia-switches-to-brics-sanctions-357/>

Table 20 - Russian-BRICS intra-industry trade, Grubel-Lloyd index, 2014

<i>Code</i>	Product label	Export, USD	Import,USD	GL index
<i>01</i>	Live animals	7489312	79662	0.02
<i>02</i>	Meat and edible meat offal	893	2448151030	0.00
<i>03</i>	Fish, crustaceans, aquatic invertebrates	914734377	380522109	0.59
<i>04</i>	Dairy products, eggs, honey, edible animal products	1557270	1932139	0.89
<i>05</i>	Products of animal origin	11994133	6627353	0.71
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers		2193291	0.00
<i>07</i>	Edible vegetables and certain roots and tubers	15129117	505095006	0.06
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	14972254	584536086	0.05
<i>09</i>	Coffee, tea, mate and spices	788412	327172399	0.00
<i>10</i>	Cereals	205501850	54128528	0.42
<i>11</i>	Milling products, malt, starches, inulin, wheat glute	4131846	1822290	0.61
<i>12</i>	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	30470640	416624281	0.14
<i>13</i>	Lac, gums, resins, vegetable saps and extracts	44461	67433484	0.00
<i>14</i>	Vegetable plaiting materials, vegetable products		977466	0.00
<i>15</i>	Animal, vegetable fats and oil, cleavage products	59949764	12981697	0.36
<i>16</i>	Meat, fish and seafood preparations	444315	88757051	0.01
<i>17</i>	Sugars and sugar confectionary	479431	267385464	0.00
<i>18</i>	Cocoa and cocoa preparations	6869563	16875416	0.58
<i>19</i>	Cereal, flour, starch, milk preparations and products	734218	17162124	0.08
<i>20</i>	Vegetable, fruit, nut and other preparations	335676	110339642	0.01
<i>21</i>	Miscellaneous edible preparations	4061994	206714005	0.04
<i>22</i>	Beverages, spirits and vinegar	7885279	38478464	0.34
<i>23</i>	Residues, wastes of food industry, animal fodder	53226356	150625389	0.52
<i>24</i>	Tobacco and manufactured tobacco substitutes	19119963	441245057	0.08

Source: Comtrade database, 2016, author's calculations

At the same time the Table 19 proves that Russia is primarily net-importer of the agricultural products from BRICS countries.

For example Grubel-Lloyd index in such categories of products as : “Meat and edible meat offal” ; “Live trees, plants, bulbs, roots, cut flowers is equal”; “Coffee, tea, mate and spices” ; “Lac, gums, resins, vegetable saps and extracts”; “Vegetable plaiting materials, vegetable products”; is equal 0, because of high level of imports from BRICS members to Russia. This phenomenon is mainly connected with cheaper prices and less costs for production of these agricultural products in BRICS countries. It means the comparative disadvantages of Russia in production of these agro-foods in relation to these countries.

Arriving at a conclusion of this paragraph it is necessary to emphasize that at the present moment Russian trade relations are mostly directed to the side of the BRICS countries. The relations between BRICS members are strengthening, especially in the frames of existing economic restrictions of Russia in the agricultural sector.

6.4 Russia and OECD countries

The Organization for Economic Cooperation and Development (OECD) consists of 34 countries. It was established in 1961 to provide economic progress and stimulate fair market relations between its members.

The Russian Federation has close trade relations with most of the OECD countries. The main products, which the country imports, are “Fish, aquatic invertebrates”, as the share in 2014 was 42.42% in total import value of this year (Table 21).

Noticeable that the amount of fish and aquatic invertebrates is increased significantly since 2000 year, which is primarily related with domestic production decline.

Table 21- Product structure of Russian agricultural and food imports from OECD, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	1.14	0.00	0.26	4.10	6.44	3.33	10.03	11.51	7.57	4.11
02	Meat and edible meat offal	16.10	25.56	13.84	35.96	52.97	33.25	38.13	31.96	23.68	15.38
03	Fish, aquatic invertebrates	2.44	10.70	14.04	18.04	18.56	20.92	14.72	14.81	28.94	42.42
04	Dairy products, eggs	27.7	9.50	3.87	3.47	2.43	2.11	2.77	2.47	4.37	7.78
07	Edible vegetables, roots	0.73	0.27	0.18	0.32	0.19	0.33	0.28	0.18	0.19	0.13
08	Edible fruit, nuts	26.09	18.3	34.03	16.86	2.53	23.34	19.93	21.91	17.62	12.46
09	Coffee, tea, mate and spices	0.22	0.19	0.22	0.25	0.14	0.08	0.01	0.09	0.09	0.12
10	Cereals	0.66	0.08	0.04	0.01	0.21	0.13	0.43	0.18	0.86	0.37
11	Milling products, malt	0.62	0.11	0.35	0.13	0.03	0.02	0.02	0.03	0.02	0.02
12	Oil seeds, oleagic fruits	0.71	0.75	0.73	0.58	0.48	0.95	1.05	1.33	2.14	1.78
13	Lac, gums, resins	4.35	3.80	0.97	0.19	0.26	0.40	0.29	0.08	0.11	0.30
15	Animal, vegetable fats and oil	2.14	0.71	0.24	0.08	0.02	0.04	0.04	1.93	0.06	0.33
16	Meat, fish and seafood prep.	1.60	2.43	1.83	1.44	0.45	0.68	0.96	0.08	1.52	1.64
17	Sugars and sugar confect.	0.20	0.15	0.07	0.04	0.07	0.08	0.07	0.02	0.05	0.05
18	Cocoa and cocoa prep.	0.21	1.46	0.01	0.26	0.23	0.19	0.10	0.12	0.09	0.08
19	Cereal, flour, starch, milk prep.	0.39	0.30	0.22	0.21	0.24	0.16	0.12	0.14	0.11	0.14
20	Vegetable, fruit, nut ,etc	0.57	1.82	8.67	4.11	4.50	3.29	3.06	4.15	3.04	4.06
21	Miscellaneous edible prep.	6.59	2.89	1.86	1.35	1.46	1.25	0.83	0.12	0.67	1.56
22	Beverages, spirits and vinegar	6.88	11.71	14.78	11.13	8.29	8.48	6.76	8.23	8.15	6.85
23	Residues, wastes of food industry	0.43	0.95	0.04	0.01	0.00	0.16	0.34	0.62	0.70	0.39
24	Tobacco, tobacco substitutes	0.20	8.26	3.75	1.48	0.50	0.78	0.08	0.04	0.03	0.02

Source: Comtrade database, 2016, author's calculations

On the other hand, the import of “Edible fruit, nuts, melons” from the OECD countries has negative trend to decrease. During the 14 years the share was declined in 2 times, which is connected with implementation of Russian self-sufficiency priorities.

The imports share of “Live animals” was increasing till 2012 year. However in the next year its value showed the reduction.

The export to the OECD countries is based on the “Fish, aquatic invertebrates”, and the share proportions are not changed significantly during the striding period (Table 22). However, in 2014 it was the lowest value of this type of agro-food products (82.67 %).

Table 22- Product structure of Russian agricultural and food exports to OECD, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.10	0.07	0.15	0.05	0.16	0.00	0.00	0.00	0.07	0.01
03	Fish, aquatic invertebrates	87.91	90.12	84.02	86.88	92.74	90.17	85.83	93.15	88.67	82.67
04	Dairy products, eggs	2.27	0.00	0.08	0.07	0.02	0.00	0.03	0.01	0.01	0.03
05	Products of animal origin	0.00	0.00	0.04	0.00	0.16	0.05	0.00	0.01	0.93	0.39
07	Edible vegetables, roots	1.35	1.32	2.64	2.11	1.88	0.35	0.40	0.39	0.66	0.40
09	Coffee, tea, mate and spices	0.00	0.13	0.00	0.00	0.00	0.00	0.05	0.00	1.56	0.49
10	Cereals	0.00	0.00	0.00	0.00	0.79	3.53	2.22	2.24	4.52	5.24
11	Milling products, malt, starches	0.00	0.01	0.07	0.04	0.07	0.06	0.01	0.06	0.11	0.06
12	Oil seeds, oleagic fruits	0.21	0.09	0.89	0.13	0.19	0.16	0.22	0.42	0.44	0.10
15	Animal, vegetable fats and oil	0.02	0.00	0.07	0.02	0.01	0.04	0.08	0.03	0.32	1.23
16	Meat, fish and seafood prep.	6.15	7.31	2.91	1.11	1.15	0.64	0.29	0.50	0.53	0.51
17	Sugars and sugar confect.	0.00	0.00	0.01	0.02	0.02	0.00	0.11	0.14	0.14	0.07
18	Cocoa and cocoa prep.	0.00	0.02	0.02	0.17	0.06	1.09	2.23	1.81	0.56	0.05
19	Cereal, flour, starch, milk prep.	0.00	0.01	0.03	0.03	0.03	0.01	0.18	0.09	0.01	0.01
21	Miscellaneous edible prep.	0.03	0.03	0.22	0.11	0.33	0.03	0.03	0.27	0.21	0.31
22	Beverages, spirits and vinegar	1.85	0.86	0.84	0.78	0.31	2.32	2.04	0.80	1.19	1.21
23	Residues, wastes of food industry, animal fodder	0.09	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.14
24	Tobacco, tobacco substitutes	0.00	0.02	8.03	8.47	2.09	1.55	6.26	0.07	0.07	7.07

Source: Comtrade database, 2016, author’s calculations

It is necessary to notice that the export of cereals to the OECD member-countries began in 2008 and have positive tendency to increase its share in the total exports.

According to Grubel-Lloyd index we can conclude that Russian and Organization for Economic Cooperation and Development have intra-industry trade in the following categories of products:

- “Fish, crustaceans, molluscs, aquatic invertebrates”;
- “Edible vegetables and certain roots and tubers”;
- “Animal, vegetable fats and oil, cleavage products”;
- “Coffee, tea, mate and spices”;
- “Milling products, malt, starches, inulin, and wheat glute” (Table 23).

Most of agricultural and food products’ indexes are equal to zero. This phenomenon is mainly concerned with exceeding of Russian imports over the exports from Russia to OECD. In some categories Russia has not imports to these countries. For example, “Meat and edible meat offal”, “Products of animal origin”, “Lac, gums, resins, vegetable saps and extracts”, “Vegetable plaiting materials, vegetable products”, “Cereal, flour, starch, milk preparations and products”, “Vegetable, fruit, nut and other preparations”.

Table 23- Russian-OECD intra-industry trade, Grubel-Lloyd index, 2014

Code	Product label	Export, USD	Import, USD	GL index
01	Live animals	30000	40677877	0.00
02	Meat and edible meat offal		152329815	0.00
03	Fish, crustaceans, molluscs, aquatic invertebrates	211061164	420259607	0.67
04	Dairy products, eggs, honey, edible animal products	82178	77127150	0.00
05	Products of animal origin	1006229	7502	0.01
06	Live trees, plants, bulbs, roots, cut flowers		118917	0.00
07	Edible vegetables and certain roots and tubers	1012234	1184940	0.92
08	Edible fruit, nuts, peel of citrus fruit, melons	3969	123422254	0.00
09	Coffee, tea, mate and spices	1262967	1219821	0.98
10	Cereals	13379052	3642617	0.43
11	Milling products, malt, starches, inulin, wheat glute	165598	155342	0.97
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	260565	17678826	0.03
13	Lac, gums, resins, vegetable saps and extracts		2996829	0.00
14	Vegetable plaiting materials, vegetable products		5512	0.00
15	Animal, vegetable fats and oil, cleavage products	3131921	3303778	0.97
16	Meat, fish and seafood preparations	1295010	16277440	0.15
17	Sugars and sugar confectionary	191224	531815	0.53
18	Cocoa and cocoa preparations	122665	795487	0.27
19	Cereal, flour, starch, milk preparations and products	21373	1368312	0.03
20	Vegetable, fruit, nut and other preparations		40226683	0.00
21	Miscellaneous edible preparations	779427	15502952	0.10
22	Beverages, spirits and vinegar	3081783	67870678	0.09
23	Residues, wastes of food industry, animal fodder	361705	3868287	0.17
24	Tobacco and manufactured tobacco substitutes	18042780	162136	0.02

Source: Comtrade database, 2016, author’s calculations

Thus, analyzing the international trade of Russia with OECD countries we can conclude that in this partnership country is more importer than exporter of agro-food products. The main trade partners of Russia from OECD countries were European Union's members and the United States. However at the present moment after implemented Russian sanctions against agricultural products from these countries the situation can be changed and the Grubel-Lloyd index must be significantly lower than it was in 2014.

6.5 The rest of the world

Besides mentioned above organizations and unions, there are some states which influence on the Russian trade performance. This category of countries is determined in the present work as "the rest of the world".

Table 24- Product structure of Russian agricultural and food imports from the rest of the world, %

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.17	0.32	0.44	1.44	1.51	1.10	1.47	1.65	0.91	0.67
02	Meat and edible meat offal	16.14	19.58	13.67	18.49	16.83	13.45	13.61	15.79	12.40	8.93
03	Fish, aquatic invertebrates	2.09	3.78	5.61	6.46	6.27	6.13	5.96	5.80	6.16	5.39
04	Dairy products, eggs	3.93	5.34	6.96	5.54	5.78	7.58	6.74	9.44	11.90	11.43
05	Products of animal origin	0.32	0.24	0.22	0.26	0.18	0.29	0.25	0.21	0.20	0.20
06	Live trees, plants, bulbs	0.69	1.20	1.71	2.21	2.80	2.78	2.87	2.85	2.61	2.59
07	Edible vegetables, roots	4.78	2.68	3.59	4.75	6.55	7.14	8.15	6.17	6.75	7.49
08	Edible fruit, nuts, melons	9.84	9.64	13.32	16.71	13.86	17.78	17.37	16.08	15.28	14.56
09	Coffee, tea, mate	1.37	2.34	2.55	2.39	2.24	2.98	2.72	2.68	2.62	2.97
10	Cereals	8.16	1.61	4.02	1.91	1.67	0.27	1.11	1.34	1.65	1.42
11	Milling products, malt	2.66	2.42	1.90	0.62	0.57	0.38	0.43	0.48	0.50	0.54
12	Oil seeds, oleagic fruits	1.25	0.89	1.14	1.41	2.17	2.75	2.77	2.69	3.46	4.35
13	Lac, gums, resins	0.36	0.47	0.34	0.31	0.41	0.36	0.32	0.29	0.25	0.28
14	Vegetable plaiting materials	0.06	0.03	0.04	0.02	0.01	0.01	0.00	0.01	0.01	0.01
15	Animal, vegetable fats	6.39	7.45	4.95	3.99	5.90	4.97	4.90	3.69	3.34	3.74
16	Meat, fish and seafood	1.44	1.52	1.09	0.99	1.00	0.89	1.11	1.61	1.69	1.80
17	Sugars and sugar confect.	10.05	7.75	3.59	1.94	1.52	1.66	1.54	1.09	1.10	1.66
18	Cocoa and cocoa prep.	3.19	5.11	4.59	3.71	4.03	4.70	4.52	4.02	3.82	4.12
19	Cereal, flour, starch	1.40	0.31	1.92	1.85	2.19	2.34	2.45	2.87	3.31	3.86
20	Vegetable, fruit, nut	3.78	4.60	4.47	4.42	3.82	3.65	3.28	3.17	3.18	4.44
21	Miscellaneous prep.	3.24	4.44	5.04	4.53	4.56	4.75	4.43	4.09	4.41	4.71
22	Beverages, spirits and vinegar	6.60	7.85	10.27	8.96	9.44	7.95	8.33	8.64	8.90	9.04
23	Residues, wastes of food industry, animal fodder	2.38	3.25	3.36	3.26	3.75	3.36	3.27	3.16	3.25	3.45
24	Tobacco, tobacco substitutes	9.72	7.17	5.22	3.83	2.95	2.73	2.39	2.17	2.30	2.36

Source: Comtrade database, 2016, author's calculations

According to the Table 25 Russian agricultural and food imports from the rest of the world are slightly changed, excluding “Dairy products, eggs, honey” and “Edible fruit, nuts, melons”. The share of these products in the total amount of imports is increased in several times during 14 years. However, in 2014 the dynamics of share growth became negative.

Completely different is the situation with exports from Russia to the rest of the world. “Fish, aquatic invertebrates” lost their share and declined. Noticeable that in 2013 the export of fish to the rest of the world was stopped. However in 2014 its value was already 13.12%.

“Oil seeds, oleagic fruits” exports are significantly decreased. If in 2000 the share was about 29%, in 2014 this indicator had become 13.12%.

Table 25- Product structure of Russian agricultural and food exports to the rest of the world, %

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.44	0.24	0.48	0.11	0.03	0.04	0.03	0.02	0.05	0.02
02	Meat and edible meat offal	0.26	0.11	0.11	0.26	0.29	0.54	0.31	0.34	0.37	0.36
03	Fish, aquatic inverteb.	22.25	12.01	11.54	8.59	4.04	21.53	15.14	11.39	0.00	13.12
04	Dairy products, eggs,	6.41	1.19	1.04	0.58	0.44	0.51	0.35	0.36	0.59	0.33
05	Products of animal origin	0.88	0.41	0.61	0.77	0.35	0.38	0.37	0.36	0.84	0.46
06	Live trees, plants, bulbs	0.04	0.03	0.05	0.00	0.01	0.01	0.01	0.00	0.00	0.00
07	Edible vegetables, roots	2.19	1.04	3.00	2.18	1.09	0.99	2.50	1.82	2.60	1.69
08	Edible fruit, nuts, melons	3.17	1.30	3.17	3.07	0.54	0.34	0.59	0.33	0.42	0.25
09	Coffee, tea, mate	0.17	0.10	0.34	0.20	0.15	0.20	0.14	0.15	0.26	0.21
10	Cereals	7.79	64.01	39.40	45.36	57.90	46.36	52.16	53.88	42.38	51.91
11	Milling products, malt	5.34	1.17	2.01	1.79	3.25	1.15	2.33	0.76	1.17	0.65
12	Oil seeds, oleagic fruits	28.82	1.53	3.44	3.05	1.49	1.66	2.44	3.08	4.08	2.41
13	Lac, gums, resins,	0.11	0.00	0.00	0.02	0.01	0.01	0.01	0.01	0.01	0.02
14	Vegetable plaiting materials	0.01	0.00	0.00	0.14	0.16	0.12	0.11	0.12	0.16	0.10
15	Animal, vegetable fats	7.57	1.98	8.54	14.88	12.89	10.95	11.22	15.23	22.76	12.98
16	Meat, fish and seafood	0.95	1.73	0.61	0.76	0.41	0.42	0.33	0.25	0.48	0.27
17	Sugars and sugar confect.	0.00	2.32	1.96	1.31	0.91	0.73	0.92	0.85	1.29	0.86
18	Cocoa and cocoa prep.	0.00	1.21	4.13	1.79	1.40	1.43	1.10	0.88	1.57	0.86
19	Cereal, flour, starch	0.58	1.11	2.31	1.86	1.56	1.24	0.91	0.64	1.12	0.67
20	Vegetable, fruit, nut	0.48	0.32	1.36	0.35	0.31	0.51	0.41	0.32	0.61	0.34
21	Miscellaneous edible prep.	3.40	2.03	3.16	2.11	1.54	1.88	0.75	0.00	1.54	1.58
22	Beverages, spirits and vinegar	6.02	4.79	4.76	4.58	3.83	3.42	2.54	1.95	3.54	2.09
23	Residues, wastes of food industry	2.94	0.88	5.67	3.41	3.67	4.61	4.25	6.23	11.90	7.36
24	Tobacco, tobacco substitutes	0.22	0.48	2.57	2.86	3.74	0.98	1.08	1.24	2.64	1.50

Source: Comtrade database, 2016, author’s calculations

The positive tendency of exports increased, for example of “Cereals” and “Animal, vegetable fats”. The reason for it is raised amount of domestic production. Cereals were always the main agricultural product in Russia for export. In 2000 the share of exported cereals was 7.57 %, which is primarily connected with the economic destabilization in Russia. However in 2002 the situation was changed completely and this value was equal to 64.01%.

Comparing 2 years we can notice that Russia exported in 2014 more cereals than it was in 2013, but less animal and vegetable fats. Thus, these two categories of products are dominative in the proportion of total Russian exports to the rest of the world.

The Table 26 shows the Grubel-Lloyd index of intra-industry trade of Russia with the rest of the world.

**Table 26- Russian intra-industry trade with the rest of the world,
Grubel-Lloyd index, 2014**

<i>Code</i>	Product label	Export, USD	Import, USD	GL index
<i>01</i>	Live animals	1879764	259306295	0.01
<i>02</i>	Meat and edible meat offal	44613626	5527832689	0.02
<i>03</i>	Fish, aquatic invertebrates	1634972002	2566070020	0.78
<i>04</i>	Dairy products, eggs, honey	41082482	3824191149	0.02
<i>05</i>	Products of animal origin	56873545	73255725	0.87
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers	43195	850405357	0.00
<i>07</i>	Edible vegetables and certain roots and tubers	210235862	2959077603	0.13
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	30729473	5479577428	0.01
<i>09</i>	Coffee, tea, mate and spices	25609547	1300100450	0.04
<i>10</i>	Cereals	6469777644	524131426	0.15
<i>11</i>	Milling products, malt, starches, inulin, wheat glute	80807784	179262189	0.62
<i>12</i>	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	299739075	1859201008	0.28
<i>13</i>	Lac, gums, resins, vegetable saps and extracts	1890082	161257588	0.02
<i>14</i>	Vegetable plaiting materials, vegetable products	11942526	3365170	0.44
<i>15</i>	Animal, vegetable fats and oil, cleavage products	161755096	1241624503	0.23
<i>16</i>	Meat, fish and seafood preparations	33545099	695793245	0.09
<i>17</i>	Sugars and sugar confectionary	107539524	811503567	0.23
<i>18</i>	Cocoa and cocoa preparations	107632485	1368553242	0.15
<i>19</i>	Cereal, flour, starch, milk preparations and products	84063622	1283616987	0.12
<i>20</i>	Vegetable, fruit, nut and other preparations	42250546	1605048417	0.05
<i>21</i>	Miscellaneous edible preparations	196558451	1765127991	0.20
<i>22</i>	Beverages, spirits and vinegar	260010577	3068432104	0.16
<i>23</i>	Residues, wastes of food industry, animal fodder	916796545	1284221158	0.83
<i>24</i>	Tobacco and manufactured tobacco substitutes	186884081	1214035387	0.27

Source: Comtrade database, 2016, author’s calculations

In this case the most traded goods for both sides were: “Fish, aquatic invertebrates”, “Products of animal origin”, “Milling products, malt, starches, inulin, wheat glute”, Residues, wastes of food industry, animal fodder”, where Grubel-Lloyd index is higher than 0.6. The rest categories of products have little values of intra-industry trade. The only commodity, where Grubel-Lloyd index is equal zero, can be determined “Live trees, plants, bulbs, roots, cut flowers”. The amount of imports exceeds exports to the rest of the world, which explains Russian comparative disadvantages in this category of products in relation to studied countries. The same situation can be observed in case of “Live animals”; “Meat and edible meat offal”; “Dairy products, eggs, honey”; “Coffee, tea, mate and spices”; “Edible fruit, nuts, peel of citrus fruit, melons”; “Lac, gums, resins, vegetable saps and extracts”; “Meat, fish and seafood preparations”.

Concluding the present chapter it is necessary to notice that Russia has the highest Grubel-Lloyd index with all observed countries in the products’ categories like:

HS-03 Fish, aquatic invertebrates;

HS-04 Dairy products, eggs, honey, edible animal products;

HS- 07 Edible vegetables and certain roots and tubers;

HS-11 Milling products, malt, starches, inulin, wheat glute.

It means that amount of exports and imports between Russia and other countries is approximately on the same level.

All data for calculations is possible to find in Appendices 14-23.

7. Russian agricultural sector comparative advantage development and its possibilities in frames of new international trade relations

7.1 Comparative advantages of Russian agricultural exports

7.1.1 Research question 2 formulation

The second research question of the present work is the following:

What groups of agricultural products and foods have comparative advantages in Russian exports? Which countries are the most important partners in frames of the theory of comparative advantages?

As it is known agricultural sector plays crucial role in the country's wealth and the development of its comparative advantages is the main purpose of any government.

In frames of implemented restrictions of Russia to import agricultural products from countries applied sanctions against Russian Federation, the country has to find new ways of trade relations. Additionally, the problem of self-sufficiency became more urgent. Russian government is interested in active development of domestic production of agricultural commodities. The answer to the second research question of the present investigation will help to understand the most important for Russia agricultural products, which can bring profit on the international trade market.

7.1.2 Analysis of Russian comparative trade advantages in the agricultural sector

The question of comparative advantages was the core idea of all economists interested in the international trade. David Ricardo was the first who proposed on the basis of the Adam Smith's absolute advantages theory the existence of certain advantages according that the country could gain during the trade process.

Further development of the comparative advantage theory was continued by neo-classical economists Eli Hecksher and Bertil Ohlin. The idea was based on the resource differences among the countries. However, this model didn't take into account the relative

prices in the autarky and in 1965 the economists Balassa proposed to count the comparative advantages revealed to the trade patterns.³⁷

Thus, the Balassa index is also called as RCA (revealed comparative advantage). In the present paper it was observed the Russian RCA in the agricultural products and foods exports to find the main drivers of the Russian international trade in this sphere.

Balassa index

According to the Balassa index analysis (RCA) during the history the comparative advantage in the Russian agricultural products exports belongs mostly to “Fish, aquatic invertebrates”, “Cereals”, “Vegetable plaiting materials”, “Animal vegetable fats and oils, cleavage products, etc”, “Cocoa and cocoa preparations” and “Tobacco, tobacco substitutes” (Table 27).

Table 27 – Values of Balassa index for Russian agricultural products and food trade

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1
02	Meat and edible meat offal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
03	Fish, aquatic invertebrates	2.7	1.5	1.6	2.3	3.2	4.0	3.1	2.3	2.7	2.1
04	Dairy products, eggs, honey	1.2	0.9	0.6	0.1	0.1	0.2	0.2	0.3	0.4	0.3
05	Products of animal origin,	1.0	0.1	0.6	0.4	0.4	0.5	0.5	0.4	0.5	0.5
06	Live trees, plants, roots	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07	Edible vegetables certain roots	0.3	0.1	0.4	0.1	0.2	0.2	0.5	0.5	0.6	0.3
08	Edible fruit, nuts, melons	0.4	0.1	0.5	0.1	0.0	0.0	0.1	0.1	0.1	0.1
09	Coffee, tea, mate and spices	0.2	0.0	0.5	0.1	0.1	0.3	0.2	0.2	0.1	0.2
10	Cereals	1.0	2.7	3.8	4.2	4.1	4.3	4.7	4.4	4.5	4.7
11	Milling products, malt, starches	2.6	2.2	1.4	1.4	1.8	0.9	2.2	0.7	0.8	0.7
12	Oil seed, oleagic fruit	3.4	2.1	0.5	0.1	0.1	0.2	0.3	0.4	0.3	0.3
13	Lac, gums, resins	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
14	Vegetable plaiting materials	0.1	1.0	0.0	1.3	1.4	1.1	1.3	1.5	1.2	1.1
15	Animal vegetable fats and oils	1.5	1.1	0.9	1.4	1.5	1.3	1.2	1.8	1.9	1.9
16	Meat, fish and seafood food prep.	1.5	1.2	0.7	0.5	0.4	0.3	0.2	0.3	0.2	0.3
17	Sugars and sugar confectionery	1.5	1.3	1.0	0.9	0.7	0.3	0.5	0.5	0.4	0.5
18	Cocoa and cocoa preparations	1.6	1.8	1.8	1.6	1.4	1.1	0.9	1.1	1.2	1.1
19	Cereal, flour, starch, milk prep.	0.8	1.0	1.3	0.3	0.3	0.6	0.5	0.6	0.6	0.7
20	Vegetable, fruit, nut, etc prep.	0.2	0.0	0.3	0.1	0.1	0.1	0.1	0.3	0.2	0.4
21	Miscellaneous edible prep.	0.9	1.2	1.6	0.3	0.3	0.8	0.5	0.7	0.7	0.7
22	Beverages, spirits and vinegar	0.6	0.2	0.7	0.2	0.2	0.5	0.4	0.4	0.3	0.4
23	Residues, wastes of food industry	0.4	0.1	1.0	0.2	0.2	0.8	0.8	1.0	0.9	1.2
24	Tobacco, tobacco substitutes	0.3	1.1	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.5

Source: Comtrade database, 2016, author’s calculations

³⁷ ISHCHUKOVA, N. and SMUTKA, L. 2013. Revealed comparative advantage of Russian agricultural exports. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 61(4). pp.941-952. ISSN: 1644-0757

Additionally it is important to notice that the Russian Federation has the stable comparative disadvantages in such categories of products as:

- “Live animals”;
- “Meat and edible meat offal”;
- “Live trees, plants, roots, cut flowers etc”;
- “Lac, gums, resins, vegetable saps and extracts nes”.

The Balassa index of these types of products is equal in the most cases to zero and the situation is not changed during the investigated period.

Lafay index

However, for full understanding of the Russian agricultural trade performance and its comparative advantages the Balassa index is not enough. The next step of the present analysis is related with the Lafay index calculations with the studying set of commodities to the countries of the whole world divided according to their different organizations utensils. The first group of countries is Commonwealth of Independent States, and the Lafay index in relation to CIS is represented in the Table 28.

Table 28 - The LFI index for Russian agricultural products in relation to CIS

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
02	Meat and edible meat offal	-6.2	-7.4	-4.1	-0.2	-1.2	-0.9	-2.9	-4.4	-3.5	-2.8
03	Fish, aquatic invertebrates	0.5	0.5	0.2	0.7	0.3	0.3	0.5	0.5	0.4	0.2
04	Dairy products, eggs, honey	0.5	-0.7	-4.7	-2.1	-3.8	-4.0	-6.5	-4.4	-5.9	-3.0
05	Products of animal origin	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
06	Live trees, plants, bulbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07	Edible vegetables, certain roots	-0.5	-0.2	-0.4	-2.1	-2.3	-2.8	-3.6	-3.0	-3.2	-6.4
08	Edible fruit, nuts, , melons	-2.3	-1.5	-2.5	-5.8	-5.8	-7.0	-6.1	-6.3	-5.7	-6.8
09	Coffee, tea, mate and spices	0.4	0.4	1.6	2.4	2.4	2.1	1.9	1.7	1.7	1.2
10	Cereals	6.0	5.6	4.8	4.4	5.5	2.0	3.1	3.9	5.1	7.9
11	Milling products, malt, starches	0.3	0.3	0.8	1.0	2.3	0.5	2.7	0.8	0.5	0.9
12	Oil seeds, oleagic fruits	-0.2	-0.1	-0.1	-0.3	-0.4	-0.7	-0.4	-0.4	-1.4	-2.2
13	Lac, gums, resins	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Vegetable plaiting materials	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
15	Animal, vegetable fats, oil	-1.0	-2.3	-1.4	-2.8	-5.4	-1.9	-1.6	6.1	5.8	6.9
16	Meat, fish and seafood prep.	0.7	0.8	1.2	2.4	1.9	1.3	0.9	0.6	0.4	0.1
17	Sugars and sugar confect.	3.9	2.3	1.8	1.3	1.4	0.4	1.1	0.5	0.5	-0.6
18	Cocoa and cocoa prep.	2.2	0.1	1.5	-0.9	-1.1	-0.7	-3.2	-3.5	-1.7	-0.2
19	Cereal, flour, starch, milk prep.	1.2	1.2	2.6	2.0	2.7	2.6	1.6	1.0	1.0	0.2
20	Vegetable, fruit, nut	-1.1	-1.1	-1.0	-1.8	-1.4	-2.0	-2.9	-2.7	-2.6	-2.2
21	Miscellaneous edible prep.	0.3	1.8	3.1	4.2	4.5	4.5	4.0	3.5	3.1	-1.3
22	Beverages, spirits and vinegar	-3.9	-5.7	-8.4	-9.7	-5.4	-3.5	1.5	-4.0	-3.3	-2.8
23	Residues, wastes of food industry, animal fodder	0.4	0.8	1.1	1.4	1.0	1.2	1.5	1.0	1.1	1.0
24	Tobacco, tobacco substitutes	-1.4	5.1	4.0	5.9	4.5	8.8	8.5	9.1	7.6	9.6

Source: Comtrade database, 2016, author’s calculations

The Lafay index in relation to CIS was calculated excluding the Eurasian Economic Union countries.

According to the results Russia has the comparative advantages in trade with the Commonwealth of Independent States in the following categories of products:

- HS -03 Fish, aquatic invertebrates;
- HS-09 Coffee, tea, mate and spices;
- HS-10 Cereals;
- HS-11 Milling products, malt, starches;
- HS-16 Meat, fish and seafood preparations;
- HS-19 Cereal, flour, starch, milk preparations;
- HS-23 Residues, wastes of food industry, animal fodder;
- HS-24 Tobacco, tobacco substitutes.

The positive trend of comparative advantage value increase is observed in the case of cereals. The rest products where Russia has the comparative advantages are changing their growth directions during the period.

Speaking about the comparative disadvantages it is necessary to point out the following products:

- HS-02 Meat and edible meat offal;
- HS-04 Dairy products, eggs, honey;
- HS-07 Edible vegetables, certain roots;
- HS -08 Edible fruit, nuts, peel of citrus fruit, melons;
- HS-12 Oil seeds, oleagic fruits;
- HS-20 Vegetable, fruit, nut;
- HS-22 Beverages, spirits and vinegar.

Noticeable that the comparative disadvantage of meat and edible meat offal is decreasing, when in case of edible vegetables, certain roots, edible fruit, nuts, peel of citrus fruit, melons, it is raising.

It worthy to mention that the animal, vegetable fats, oil had the negative values of the Lafay index till 2012. At the present moment these category of products is stable increasing.

The rest products and foods' comparative advantage values equal zero or close to zero.

The next set of analyzing countries is the members of the Eurasian Economic Union (Table 29).

Table 29 - The LFI index for Russian agricultural products in relation to the Eurasian Economic Union

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.1	0.1	0.1	0.0	0.1	0.0	0.0	-0.2	0.0	0.2
02	Meat and edible meat offal	0.3	-0.3	0.0	0.0	0.0	-	-	-6.6	-6.2	-7.1
03	Fish, aquatic invertebrates	1.4	-3.2	-0.2	-1.1	-1.1	-0.2	-2.2	0.0	0.0	-0.1
04	Dairy products, eggs,	5.8	5.4	7.3	4.9	4.3	1.1	1.8	-20	-19	-18.0
05	Products of animal origin	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
06	Live trees, plants, bulbs	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	-0.1
07	Edible vegetables, roots	-3.2	-6.2	-5.6	-10.1	-9.8	-9.0	-6.5	-0.8	-1.3	-1.7
08	Edible fruit, nuts	-5.9	-2.1	-3.5	-9.0	-16.5	-18	-2.7	-0.3	-0.6	-0.9
09	Coffee, tea, mate	0.5	0.3	0.2	0.2	0.3	0.1	-0.2	-0.1	0.8	0.9
10	Cereals	-25	-7.4	-20.8	-12.7	-2.4	9.3	8.7	0.4	-1.8	0.0
11	Milling products, malt, starches	-0.8	-0.1	-0.9	0.3	0.4	1.0	2.9	0.2	0.1	0.3
12	Oil seeds, oleagic fruits	1.2	0.3	0.3	0.6	0.2	0.0	-0.1	0.0	0.4	0.4
13	Lac, gums, resins	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1
14	Vegetable plaiting materials	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
15	Animal, vegetable fats, oil	5.7	4.9	-0.1	3.5	5.6	7.5	6.6	5.6	4.8	4.5
16	Meat, fish and seafood prep.	3.3	2.1	-0.7	2.3	2.6	0.7	0.3	-1.4	-1.3	-2.0
17	Sugars and sugar confection.	6.5	2.8	0.6	1.1	0.1	0.8	2.0	1.8	1.4	-0.4
18	Cocoa and cocoa prep.	5.3	7.1	3.1	4.8	3.6	7.5	7.0	5.3	5.8	5.3
19	Cereal, flour, starch, milk prep.	3.8	3.3	6.6	5.6	4.3	3.2	2.8	3.5	5.3	5.5
20	Vegetable, fruit, nut and other prep.	0.5	0.4	0.3	1.1	0.9	-0.5	-1.7	1.7	2.1	2.3
21	Miscellaneous edible prep.	3.7	4.1	8.4	6.7	5.6	2.1	2.2	6.4	4.8	4.6
22	Beverages, spirits and vinegar	0.0	-10	3.2	0.3	-1.6	-8.7	-21.2	0.5	0.7	0.7
23	Residues, wastes of food industry	0.2	-0.6	0.6	0.4	1.3	0.7	0.3	0.9	0.9	2.1
24	Tobacco, tobacco substitutes	-2.8	-0.6	0.7	0.9	2.0	2.6	-0.1	3.6	3.5	3.4

Source: Comtrade database, 2016, author's calculations

In accordance with obtained results it is possible to conclude that in relation to EAEU the Russian Federation has more comparative advantages than it was in case of the Commonwealth of Independent States.

The most important products of Russian exports to the EAEU countries can be determined:

HS-15 Animal, vegetable fats, oil;

HS-18 Cocoa and cocoa preparations;

HS-19 Cereal, flour, starch, milk prep.

HS -21 Miscellaneous edible preparations.

Necessary to mention the “Dairy products, eggs, honey” which was converted from Russian comparative advantages into disadvantages during the investigated period. The main reason of such changes is decrease in domestic production and upward trend of imports to Russia from EAU countries of these products.

Table 30 - The LFI index for Russian agricultural products in relation to BRICS

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2
02	Meat and edible meat offal	-0.4	-3.5	-4.3	-7.6	-2.6	-8.4	-5.6	-9.8	-11.2	-11.8
03	Fish, aquatic invertebrates	9.1	6.6	6.5	7.5	3.7	21.5	20.5	22.0	22.3	18.1
04	Dairy products, eggs	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
05	Products of animal origin	0.7	0.1	0.1	0.0	0.1	-0.2	-0.1	-0.1	0.2	0.2
06	Live trees, plants, bulbs, roots	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07	Edible vegetables and roots	-0.3	0.5	-0.2	-0.8	0.1	-1.1	-0.9	1.0	-1.4	-2.1
08	Edible fruit, nuts	1.9	0.6	2.5	-0.3	-0.7	-2.0	-1.8	-2.5	-3.3	-2.5
09	Coffee, tea, mate	-3.3	-0.4	-0.5	-0.6	-0.2	-0.6	-1.3	-1.9	-1.7	-1.6
10	Cereals	-0.9	-0.1	-0.1	10.7	1.6	-0.5	0.7	0.6	2.9	4.2
11	Milling products, malt	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.1	0.1
12	Oil seeds, oleagic fruits, etc	1.5	-0.1	-0.1	-0.2	-0.3	-1.1	-0.9	-0.5	0.0	-1.3
13	Lac, gums, resins,	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.3
14	Vegetable plaiting materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Animal, vegetable fats and oil, cleavage products	0.0	-0.1	-0.1	0.6	0.5	0.7	0.1	0.4	0.1	1.2
16	Meat, fish and seafood prep.	0.0	-0.1	-0.1	-0.3	-0.1	-0.3	-0.3	-0.4	-0.4	-0.4
17	Sugars and sugar confection.	-4.9	-1.8	-1.9	-5.3	-0.9	-4.5	-5.8	-1.7	-1.4	-1.3
18	Cocoa and cocoa prep.	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
19	Cereal, flour, starch, milk prep.	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.2	0.2	-0.1
20	Vegetable, fruit, nut and other prep.	-0.1	-0.3	-0.6	-1.4	-0.5	-1.6	-1.6	-2.5	-2.3	-0.5
21	Miscellaneous edible prep.	-1.2	-0.4	-0.1	-0.5	-0.1	-0.8	-0.8	-1.2	-1.1	-0.9
22	Beverages, spirits and vinegar	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	0.0
23	Residues, wastes of food industry, animal fodder	0.2	0.0	0.0	-0.1	-0.1	1.0	0.0	-0.1	-0.3	0.4
24	Tobacco, tobacco substitutes	-2.3	-0.9	-1.1	-1.5	-0.4	-2.0	-2.0	-3.1	-2.2	-1.7

Source: Comtrade database, 2016, author’s calculations

In relation with BRICS countries Russia has comparative advantages mainly in HS-03 “Fish, aquatic invertebrates”. The Lafay index of these category of products was 9.1 in 2000 and it was increasing till 2013 (22.3). However in 2014 this value began to slowdown.

At the same time it is quite opposite situation with HS- 10 “Cereals”, in the beginning of the investigated period Russia had the comparative disadvantage and the LFI was equal to -0.9. At the present moment it is possible to conclude that Russia increased its position on the cereals market and has comparative advantage in relation with BRICS.

However in case of HS-02 “Meat and edible meat offal” country’s LFI is continuing to be negative. Thus, during 14 years the comparative disadvantage of meat and edible meat offal became evident.

Table 31 - The LFI index for Russian agricultural products in relation to OECD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	-0.2	0.0	-0.1	-1.6	-1.7	-1.3	-3.3	-4.3	-6.2	-1.3
02	Meat and edible meat offal	-3.3	-10.6	-6.9	-14.0	-14	-12	-12	-12	-19	-5.0
03	Fish, aquatic invertebrates	17.6	33.0	34.9	26.8	20.3	26.0	23.7	29.5	-7.8	13.1
04	Dairy products, eggs	-5.2	-3.9	-1.9	-1.3	-0.7	-0.8	-0.9	-0.9	-3.6	-2.5
05	Products of animal origin	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.2	0.1
06	Live trees, plants, bulbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07	Edible vegetables, roots	0.1	0.4	1.2	0.7	0.5	0.0	0.0	0.1	0.0	0.1
08	Edible fruit, nuts	-5.4	-7.6	-17	-6.6	-0.7	-8.8	-6.6	-8.2	-14.5	-4.1
09	Coffee, tea, mate	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2	0.1
10	Cereals	-0.1	0.0	0.0	0.0	0.2	1.3	0.6	0.8	0.1	1.6
11	Milling products, malt	-0.1	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Oil seeds, oleagic fruits	-0.1	-0.3	0.1	-0.2	-0.1	-0.3	-0.3	-0.3	-1.7	-0.5
13	Lac, gums, resins	-0.9	-1.6	-0.5	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1
14	Vegetable plaiting materials	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0
15	Animal, vegetable fats and oil, cleavage products	-0.4	-0.3	-0.1	0.0	0.0	0.0	0.0	-0.7	0.0	0.3
16	Meat, fish and seafood prep.	0.9	2.0	0.5	-0.1	0.2	0.0	-0.2	0.2	-1.1	-0.4
17	Sugars and sugar confection.	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Cocoa and cocoa prep.	0.0	-0.6	0.0	0.0	0.0	0.3	0.7	0.6	0.0	0.0
19	Cereal, flour, starch, milk prep.	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0
20	Vegetable, fruit, nut and other prep.	-0.1	-0.8	-4.3	-1.6	-1.2	-1.2	-1.0	-1.6	-2.5	-1.3
21	Miscellaneous edible prep.	-1.3	-1.2	-0.8	-0.5	-0.3	-0.5	-0.3	0.1	-0.5	-0.4
22	Beverages, spirits and vinegar	-1.0	-4.5	-6.9	-4.0	-2.2	-2.3	-1.6	-2.8	-6.5	-1.8
23	Residues, wastes of food industry	-0.1	-0.4	0.0	0.0	-	-0.1	-0.1	-0.2	-0.6	-0.1
24	Tobacco, tobacco substitutes	0.0	-3.4	2.1	2.7	0.4	0.3	2.1	0.0	0.0	2.3

Source: Comtrade database, 2016, author’s calculations

In relation to OECD countries the highest comparative advantages were found in such categories of products as “Fish, aquatic invertebrates”. However during the 14 years period this value was weakening and in 2013 it was even negative.

Additionally the positive value of LFI was found in such products groups as:

HS-10 Cereals;

HS – 24 Tobacco, tobacco substitutes.

Noticeable that this set of products increased their values and transformed from comparative disadvantages into comparative advantage categories.

Table 32 - The LFI index for Russian agricultural products in relation to the rest of the world

<i>Code</i>	<i>Product label</i>	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	0.0	0.0	0.0	-0.3	-0.4	-0.3	-0.5	-0.6	-0.2	-0.3
02	Meat and edible meat offal	-2.7	-5.2	-2.8	-4.2	-4.4	-3.3	-4.3	-5.7	-3.3	-3.4
03	Fish, aquatic invertebrates	3.4	2.2	1.2	0.5	-0.6	4.0	3.0	2.1	-6.7	3.1
04	Dairy products, eggs, honey	0.4	-1.1	-1.2	-1.1	-1.4	-1.8	-2.1	-3.3	-3.1	-4.4
05	Products of animal origin	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.1
06	Live trees, plants, bulbs	-0.1	-0.3	-0.3	-0.5	-0.7	-0.7	-0.9	-1.0	-0.7	-1.0
07	Edible vegetables, roots	-0.4	-0.4	-0.1	-0.6	-1.4	-1.6	-1.8	-1.6	-1.1	-2.3
08	Edible fruit, nuts, melons	-1.1	-2.2	-2.1	-3.2	-3.5	-4.5	-5.4	-5.8	-4.1	-5.7
09	Coffee, tea, mate and spices	-0.2	-0.6	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-0.6	-1.1
10	Cereals	-0.1	16.6	7.3	10.1	14.9	11.9	16.5	19.3	16.0	20.2
11	Milling products, malt	0.5	-0.3	0.0	0.3	0.7	0.2	0.6	0.1	0.2	0.0
12	Oil seeds, oleag. fruits	4.6	0.2	0.5	0.4	-0.2	-0.3	-0.1	0.1	0.2	-0.8
13	Lac, gums, resins	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
14	Vegetable plaiting materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Animal, vegetable fats, oil	0.2	-1.5	0.7	2.5	1.9	1.5	2.0	4.2	5.3	3.7
16	Meat, fish and seafood prep.	0.6	0.1	-0.1	-0.1	-0.2	-0.1	-0.2	-0.5	-0.3	-0.6
17	Sugars and sugar confection.	-2.2	-1.4	-0.3	-0.1	-0.2	-0.2	-0.2	-0.1	0.1	-0.3
18	Cocoa and cocoa prep.	-0.7	-1.0	-0.1	-0.4	-0.7	-0.8	-1.1	-1.2	-0.6	-1.3
19	Cereal, flour, starch, milk preparations and products	-0.1	0.2	0.1	0.0	-0.2	-0.3	-0.5	-0.8	-0.6	-1.3
20	Vegetable, fruit, nut and other prep.	-0.6	-1.1	-0.6	-0.9	-0.9	-0.8	-0.9	-1.0	-0.7	-1.6
21	Miscellaneous edible prep.	0.0	-0.6	-0.4	-0.6	-0.8	-0.7	-1.2	-1.6	-0.8	-1.3
22	Beverages, spirits and vinegar	-0.1	-0.8	-1.1	-1.0	-1.5	-1.2	-1.9	-2.5	-1.5	-2.8
23	Residues, wastes of food industry, animal fodder	0.1	-0.6	0.5	0.0	0.0	0.3	0.3	1.1	2.4	1.6
24	Tobacco, tobacco substitutes	-1.6	-1.8	-0.5	-0.2	0.2	-0.5	-0.4	-0.3	0.1	-0.3

Source: Comtrade database, 2016, author's calculations

In accordance to received results Russia has more products with comparative disadvantages than comparative advantages in relation of trade with the rest of the world. However, this situation is changing. For example in case of “Cereals” Russia increased the LFI and the positive trend is maintaining at the present days. “Animal, vegetable fats, oil” have the positive trends too as their Lafay index is raised from 2000.

Thus, according to the index analysis of comparative advantages of Russian agricultural products on the international market it is possible to conclude that the most comparative products are:

HS-03 Fish, aquatic invertebrates,

HS-10 Cereals;

HS-15 Animal vegetable fats and oils, cleavage products, etc.

Additionally it was observed the most important individual countries, where Russia had comparative advantages in 2014 in the categories of products analyzed above (Table 33).

Table 33- Top 20 countries in terms of comparative advantages of Russian agricultural products, 2014

	<i>Country</i>	<i>LFI index</i>
1	Turkey	4.18
2	Kazakhstan	4.05
3	Rep. of Korea	2.92
4	Azerbaijan	1.66
5	Iran	1.27
6	Saudi Arabia	0.93
7	China	0.77
8	Uzbekistan	0.71
9	Sudan	0.64
10	Georgia	0.60
11	Japan	0.60
12	Latvia	0.58
13	Kyrgyzstan	0.54
14	Nigeria	0.51
15	Turkmenistan	0.44
16	Jordan	0.42
17	Algeria	0.38
18	Mongolia	0.36
19	United Arab Emirates	0.35
20	Libya	0.34

Source: Comtrade database, 2016, author's calculations

In accordance with the Table 33 it is possible to conclude that in 2014 the most significant comparative advantages were in relation with Turkey, Kazakhstan, Republic of Korea, Azerbaijan and Iran. The full information about Russian agricultural trade with all countries in 2014 and LFI index can be found in the Appendix 1.

Product mapping

As tool for detailed analysis of Russian comparative advantages it was taken the product mapping of all agricultural products and foods investigated in the present paper.

The technique of the product maps building is explained in the methodology. However, for reader's convenience it is necessary to point out the main characteristics of constructed maps.

It was taken two criteria devoted to estimate the Russian agricultural sector comparative advantages: Lafay index and Trade Balance index (calculations of both indices for all categories of countries are possible to find in Appendix 2-Appendix 11). The size of circles is determined according to the share of each products category in the total exports of Russia to each set of countries. For analysis it was chosen two periods: 2000 and 2014 years.

In accordance to the results received during the product mapping construction it is necessary to emphasize the following findings.

CIS (without EAEU countries)

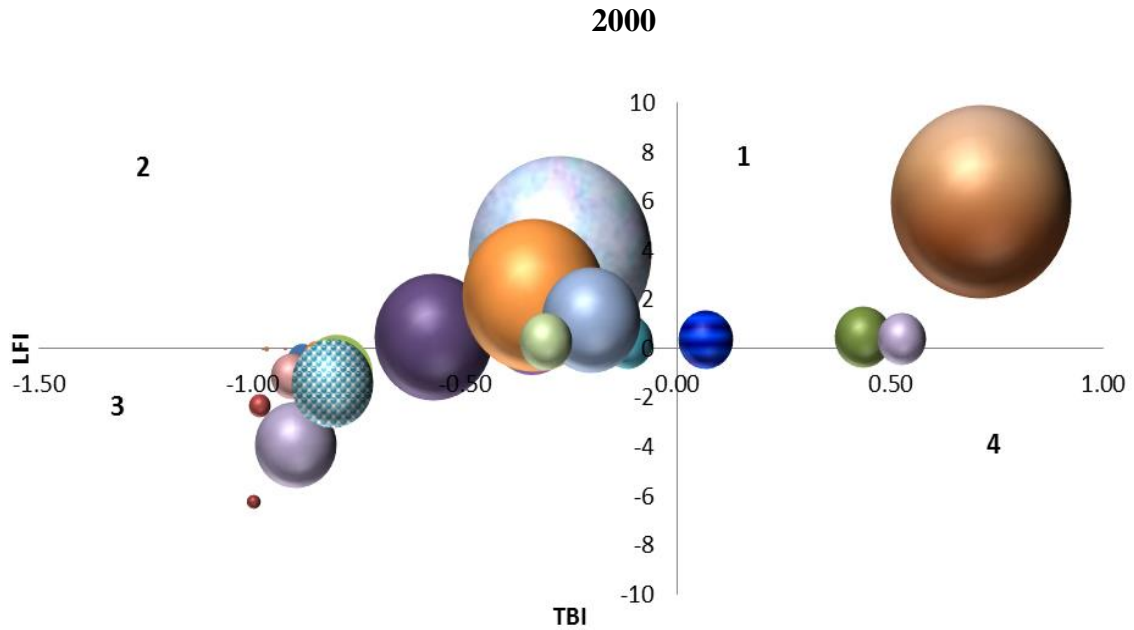
In relation with the Commonwealth of Independent States (excluding countries of the Eurasian economic Union) Russian comparative advantages in the agricultural sector is significantly changed during 14 years (Figure 11).

As we can see the higher right area which is representing Russian agricultural exports, where the country has comparative advantages, had mainly one category of products with the significant LFI index value: cereals.

However in 2014 the situation was changed and the amount of products with positive comparative advantages and trade balance is increased in relation with CIS. These set of products have the Lafay index value higher than 6 and positive Trade Balance index: cereals; animal, vegetable fats and oil, cleavage products; tobacco and manufactured tobacco substitutes.

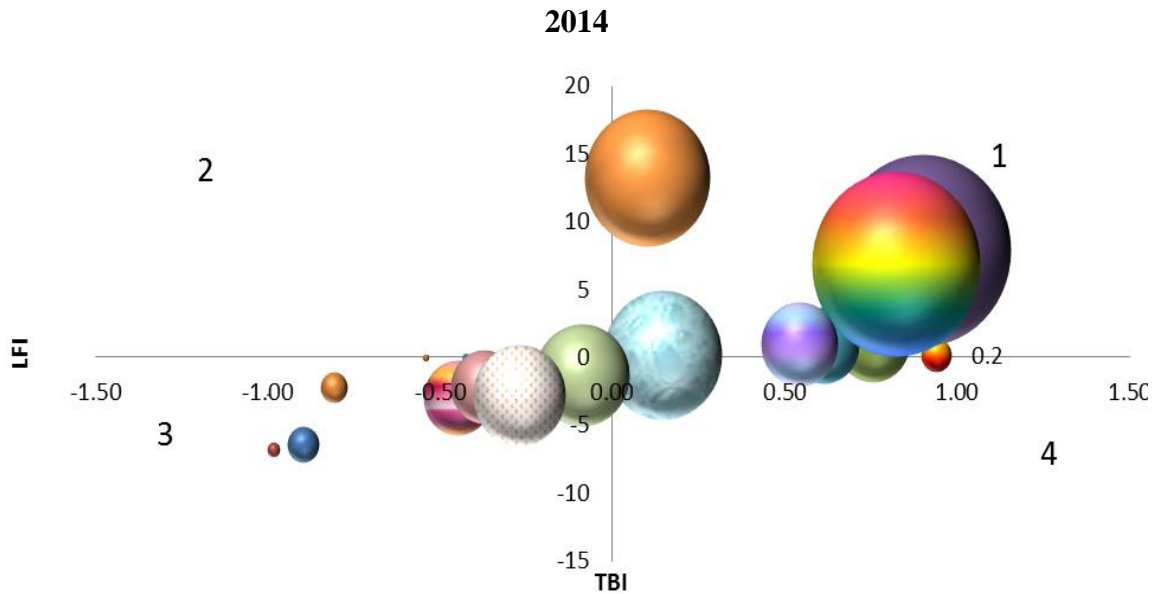
The comparative disadvantages we can observe mainly in case of imported from CIS products and these categories are occupying the lower left area of the maps. In 2000 year the lowest values of LFI and TBI indices had such category of products as "Meat and edible meat offal", in 2014 it is maintaining to be Russian comparative disadvantage product, but with higher indices values. This phenomenon can speak about the positive trends in the production of meat and edible meat offal in Russia.

Figure 11 - Products mapping of Russian agricultural comparative advantages, CIS (2000; 2014)



<p>1st area – 26.8 % of the total exports</p> <p>Live animals (0.41; 0.1) Fish, aquatic invertebrates (0.44; 0.5) Coffee, tea, mate and spices (0.53; 0.4) Cereals (0.71; 6) Residues, wastes of food industry (0.06; 0.4)</p>	<p>2nd area – 58.6 % of the total exports</p> <p>Vegetable plaiting materials, vegetable products (-0.92; 0) Meat, fish and seafood preparations (-0.34; 0.7) Sugars and sugar confectionary (-0.28; 3.9) Cocoa and cocoa preparations (-0.34; 2.2) Cereal, flour, starch, milk preparations and products (-0.21; 1.2) Miscellaneous edible preparations (-0.31; 0.3) Lac, gums, resins, vegetable saps and extracts (-0.98; 0) Milling products, malt, starches (-0.12; 0.3) Live trees, plants, bulbs, roots, cut flowers (-0.97; 0) Products of animal origin (-0.22; 0.1) Dairy products, eggs, honey (-0.57; 0.5)</p>
<p>3d area – 14.6 % of the total exports</p> <p>Meat and edible meat offal (-1.00; -6.2) Animal, vegetable fats and oil, cleavage products (-0.80; -1) Edible vegetables and certain roots and tubers (-0.88; -0.5) Edible fruit, nuts, peel of citrus fruit, melons (-0.98; -2.3) Oil seeds, oleagic fruits, grain (-0.85; -0.2) Vegetable, fruit, nut and other preparations (-0.91; -1.1) Beverages, spirits and vinegar (-0.90; -3.9) Tobacco tobacco substitutes (-0.81; -1.4)</p>	<p>4rth area</p>

Figure 11 - Products mapping of Russian agricultural comparative advantages, CIS (2000; 2014)



<p>1st area - 72.8% of the total exports</p> <p>Live animals(0.64;0.2) Fish, aquatic invertebrates (0.94; 0.2) Coffee, tea, mate and spices (0.75;1.2) Cereals (0.90; 7.9) Milling products, malt, starches, inulin, wheat glute (0.61;0.9) Lac, gums, resins, vegetable saps and extracts (0.51; 0) Animal, vegetable fats and oil, cleavage products (0.82;6.9) Meat, fish and seafood preparations (0.17;0.1) Cereal, flour, starch, milk preparations and products (0.15; 0.2) Residues, wastes of food industry, animal fodder (0.54;1) Tobacco and manufactured tobacco substitutes (0.93;9.6)</p>	<p>2nd area – 0.5 % of the total exports</p> <p>Products of animal origin (0.42;0) Live trees, plants, bulbs, roots (0.54;0) Vegetable plaiting materials, vegetable products (-0.94; 0)</p>
<p>3d area – 17.9 % of the total exports</p> <p>Meat and edible meat offal (-1.00;-2.8) Dairy products, eggs, honey (-0.45;-3) Edible vegetables and certain roots (-0.90;-6.4) Edible fruit, nuts, peel of citrus fruit (-0.98;-6.8) Sugars and sugar confectionary (-0.07;-0.6) Vegetable, fruit, nut and other preparations (-0.37;-2.2) Miscellaneous edible preparations (-0.09;-1.3) Beverages, spirits and vinegar (-0.27;-2.8)</p>	<p>4rth area – 8.8 % of the total exports</p> <p>Cocoa and cocoa preparations (0.10;-0.2)</p>

Source: Comtrade database, 2016, author's calculations

EAEU

The next group of countries observed and investigated in the present paper is member of the Eurasian Economic Union.

According to the results of product mapping it is possible to conclude that Russia has more comparative advantages of exports in relation to EAEU than in relation to CIS countries (Figure 12).

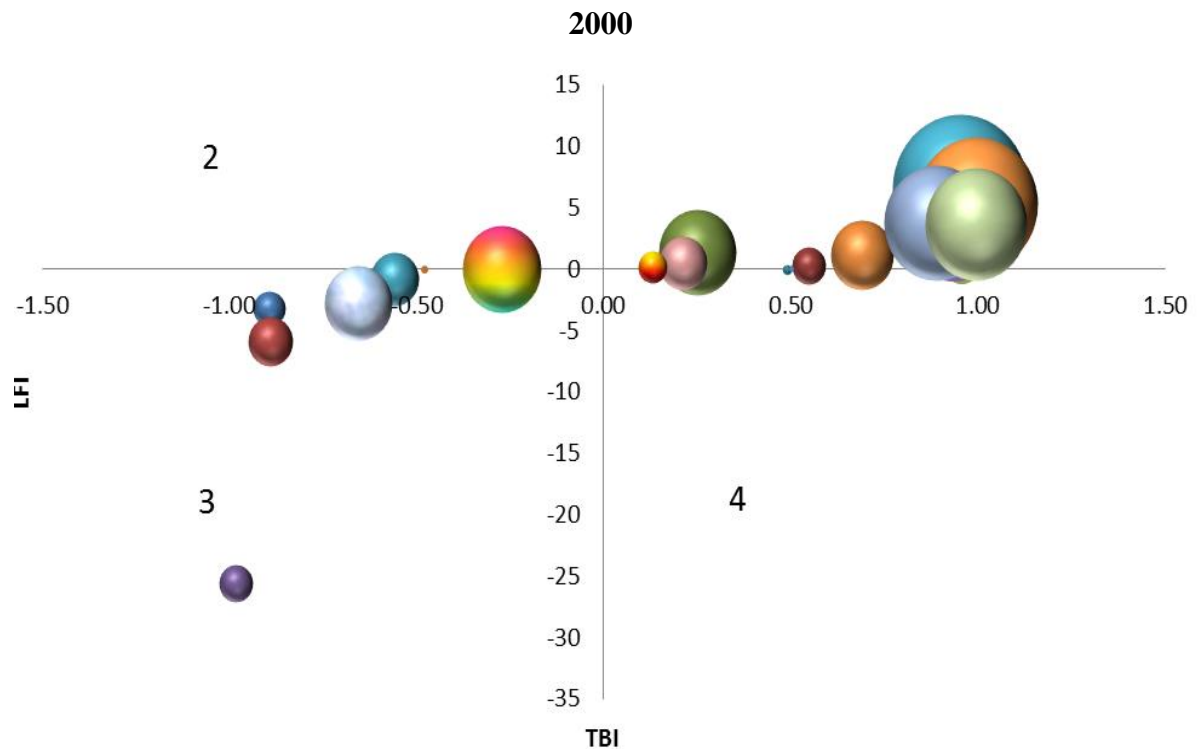
In 2000 Russia had comparative advantages in exports of such products as: live animals; meat and edible meat offal; fish, aquatic invertebrates; dairy products, eggs, honey; products of animal origin; coffee, tea, mate and spices; lac, gums, resins; animal, vegetable fats and oil, cleavage products; meat, fish and seafood preparations; sugars and sugar confectionary; cocoa and cocoa preparations; cereal, flour, starch, milk preparations and products; vegetable, fruit, nut and other preparations; miscellaneous edible preparations; residues, wastes of food industry, animal fodder.

It is necessary to emphasize that in 2014 the amount of products with comparative advantages in exports in 2014 was decreased. For example, meat and edible meat offal became Russian comparative disadvantage in imports when in 2014 it had in both indices positive values. At the present moment Russia has to increase the domestic production of meat to reduce unprofitable for country imports. The same is the situation with fish, aquatic invertebrates; dairy products, eggs, honey; products of animal origin.

In case of cereals we can observe the positive tendency as in 2000 Russia has absolutely comparative disadvantages in trade with Eurasian Economic Union countries. However in 2014 the values are changed and country less imports and LFI index equals zero.

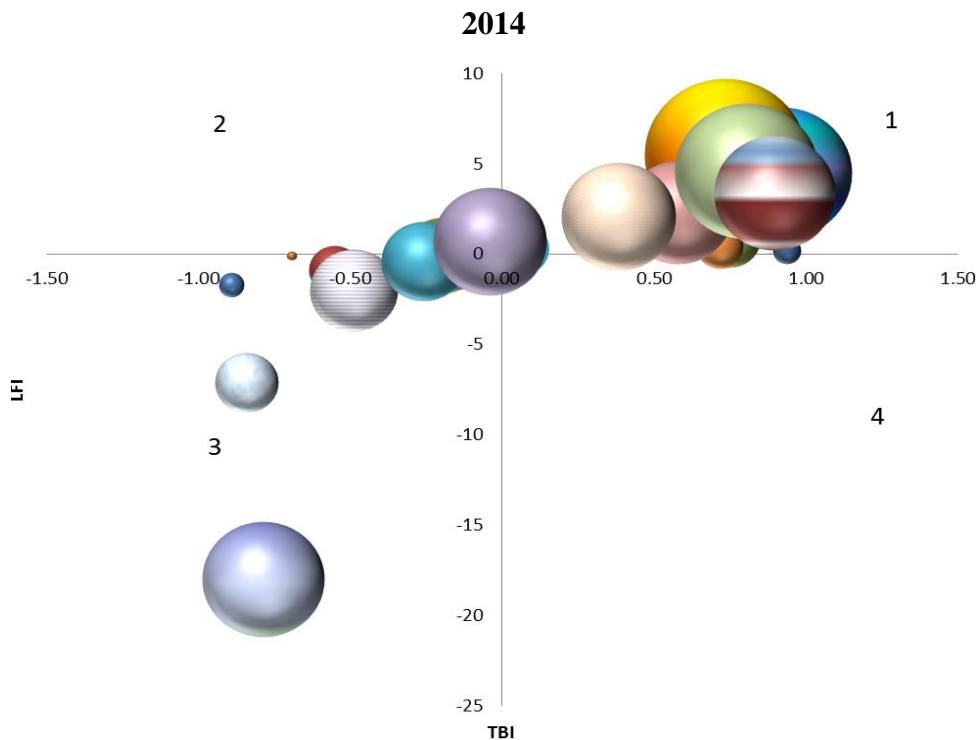
The production of tobacco and tobacco substitutes and further its export to the EAEU countries is increased significantly as in the beginning of the investigated period Russia had imports comparative disadvantages. And in 2014 its values became positive.

Figure 12 - Products mapping of Russian agricultural comparative advantages, EAEU (2000; 2014)



<p>1st area - 86.8 % of the total exports</p> <p>Live animals(0.91;0.1) Meat and edible meat offal (0.55;0.3) Fish, aquatic invertebrates (0.25;1.4) Dairy products, eggs, honey (0.98; 5.8) Products of animal origin (0.49; 0) Coffee, tea, mate and spices (0.96;0.5) Oil seeds, oleagic fruits, grain (0.69; 1.2) Lac, gums, resins (0.50; 0) Animal, vegetable fats and oil, cleavage products (0.97; 5.7) Meat, fish and seafood preparations (0.94; 3.3) Sugars and sugar confectionary (0.95; 6.5) Cocoa and cocoa preparations (1.00; 5.3) Cereal, flour, starch, milk preparations and products (0.89;3.8) Vegetable, fruit, nut and other preparations (0.21;0.5) Miscellaneous edible preparations (0.99;3.7) Residues, wastes of food industry, animal fodder (0.13;0.2)</p>	<p>2nd area – 4.8 % of the total exports</p> <p>Vegetable plaiting materials, vegetable products (-0.31; 0) Beverages, spirits and vinegar (-0.27; 0) Live trees, plants, bulbs, roots, cut flowers (-0.48; 0)</p>
<p>3d area –8.4 % of the total exports</p> <p>Edible vegetables and certain roots and tubers (-0.89;-3.2) Edible fruit, nuts, peel of citrus fruit (-0.89; -5.9) Cereals (-0.98;-25.6) Milling products, malt (-0.56;-0.8) Tobacco, tobacco substitutes (-0.66;-2.8)</p>	<p>4rth area</p>

Figure 12 - Products mapping of Russian agricultural comparative advantages, EAEU (2000; 2014)



<p align="center">1st area - 69.5 % of the total exports</p> <p>Live animals (0.94;0.2) Coffee, tea, mate and spices (0.75;0.9) Milling products, malt, starches (0.06;0.3) Oil seeds, oleagic fruits, grain, seed, fruit (0.72;0.4) Lac, gums, resins, vegetable (0.52;0.1) Vegetable plaiting materials, vegetable products (0.88; 0) Animal, vegetable fats and oil, cleavage products (0.92;4.5) Cocoa and cocoa preparations (0.74;5.3) Cereal, flour, starch, milk preparations and products (0.73;5.5) Vegetable, fruit, nut and other preparations (0.58;2.3) Miscellaneous edible preparations (0.80;4.6) Residues, wastes of food industry, animal fodder (0.38;2.1) Tobacco and manufactured tobacco substitutes (0.90;3.4)</p>	<p align="center">2nd area -9.2 % of the total exports</p> <p>Beverages, spirits and vinegar (-0.04;0.7) Products of animal origin (-0.18;0) Cereals (-0.15;0)</p>
<p align="center">3d area -21.4 % of the total exports</p> <p>Meat and edible meat offal (-0.84;-7.1) Fish, aquatic invertebrates (-0.20;-0.1) Dairy products, eggs, honey (-0.79;-18) Live trees, plants, bulbs, roots, cut flowers (-0.69;-0.1) Edible vegetables and certain roots (-0.89;-1.7) Edible fruit, nuts, peel of citrus fruit, melons (-0.55;-0.9) Meat, fish and seafood preparations (-0.49;-2) Sugars and sugar confectionary (-0.26;-0.4)</p>	<p align="center">4rth area</p>

Source: Comtrade database, 2016, author's calculations

BRICS

At the present moment countries of BRICS are one of the most important trade partners of Russia, especially in the agricultural sphere.

Comparing two periods of trade relations between Russia and BRICS members we can conclude that in 2000 there were less set of products where Russia had comparative advantages in imports than in 2014 (Figure 13).

Circles on the higher left side of the product maps determine groups of agri-foods which are more profitable for Russia to buy abroad than to produce on the territory of the country. To such categories of products can be referred:

- ❖ Dairy products, eggs;
- ❖ Live trees, plants, bulbs;
- ❖ Vegetable plaiting materials, vegetable products;
- ❖ Milling products, malt, starches;
- ❖ Cocoa and cocoa preparations;
- ❖ Beverages, spirits and vinegar;
- ❖ Residues, wastes of food industry, animal fodder.

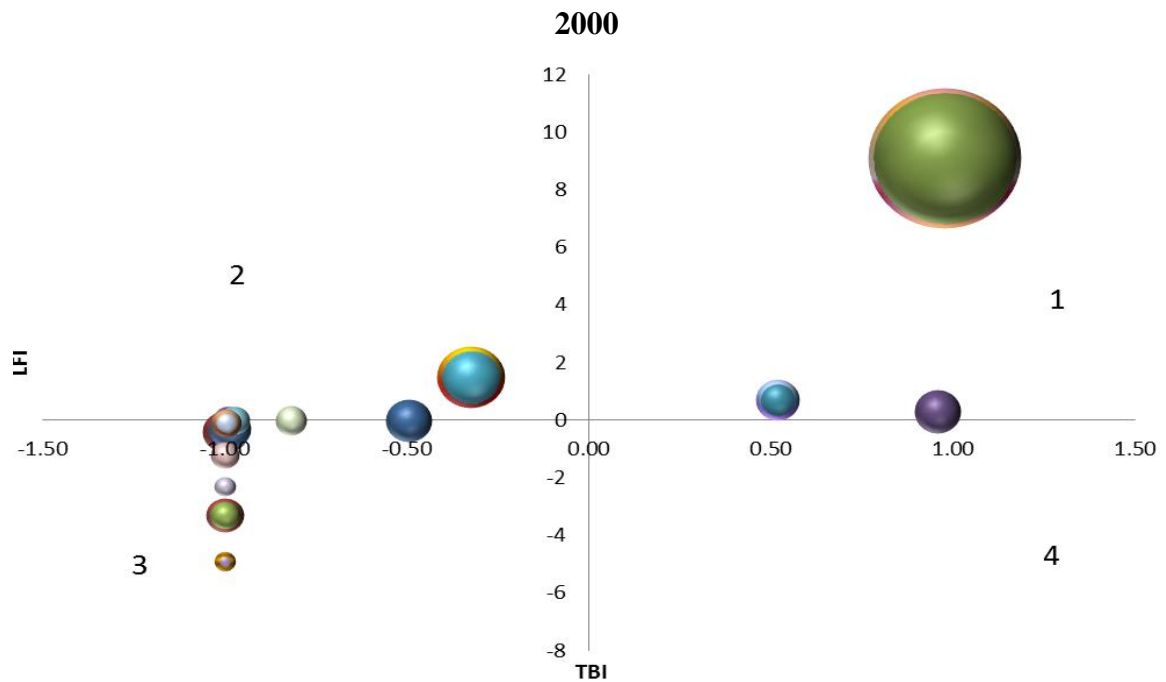
Such beneficial trade between countries can be explained with cheap labor forces in BRICS countries. Thus it is less expensive to purchase these products there instead to produce in Russia.

The comparative disadvantages in imports are maintaining to be in the following groups of products as:

- ❖ Meat and edible meat offal;
- ❖ Edible vegetables, certain roots;
- ❖ Sugars and sugar confectionary;
- ❖ Vegetable, fruit, nut and other preparations;
- ❖ Cereal, flour, starch, milk preparations and products;
- ❖ Tobacco, tobacco substitutes.

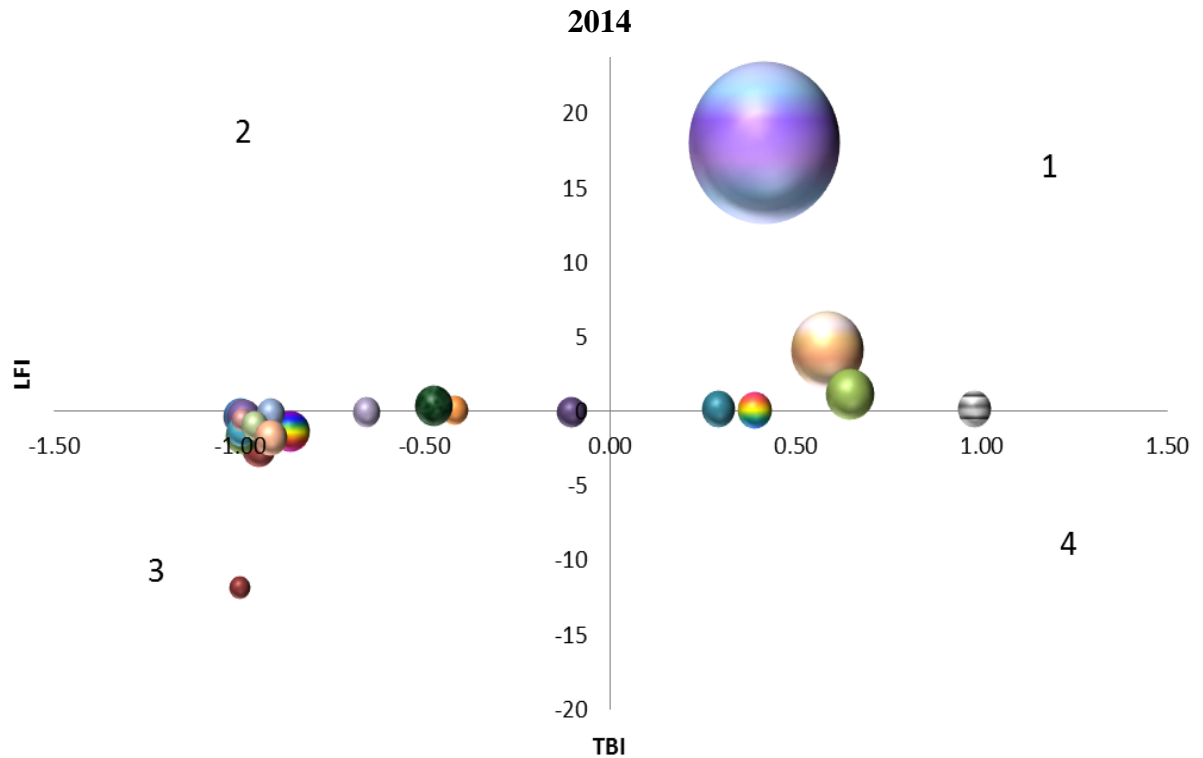
In case of meat and edible meat offal the LFI index is becoming more negative and the comparative disadvantage in this category of products is the most significant among all agri-foods imported from BRICS countries to Russia.

Figure 13 - Products mapping of Russian agricultural comparative advantages, BRICS (2000; 2014)



<p style="text-align: center;">1st area -69.9 % of the total exports</p> <p>Fish, aquatic invertebrates (0.98;9.1) Dairy products, eggs, honey (0.96;0.3) Products of animal origin (0.52;0.7) Residues, wastes of food industry, animal fodder (0.12;0.2)</p>	<p style="text-align: center;">2nd area – 29.9 % of the total exports</p> <p>Lac, gums, resins, vegetable saps (-1.00; 0) Vegetable plaiting materials, vegetable products (-1.00; 0) Animal, vegetable fats and oil, cleavage products (-0.97; 0) Meat, fish and seafood preparations (-0.97; 0) Cocoa and cocoa preparations (-0.97; 0) Cereal, flour, starch, milk preparations (-1.00; 0) Beverages, spirits and vinegar (-0.82; 0) Live animals (-0.50; 0) Live trees, plants, bulbs, roots (-1.00; 0) Edible fruit, nuts, peel of citrus fruit, melons (-0.50; 1.9) Milling products, malt, starches (-0.99; 0) Oil seeds, oleagic fruits, grain, seed (-0.33; 1.5)</p>
<p style="text-align: center;">3d area –0.3 % of the total exports</p> <p>Meat and edible meat offal (-1.00; -0.4) Edible vegetables and certain roots and tubers (-0.99; -0.3) Coffee, tea, mate and spices (-1.00; -3.3) Cereals (-1.00; -0.9) Sugars and sugar confectionary (-1.00; -4.9) Vegetable, fruit, nut and other preparations (-1.00; -0.1) Miscellaneous edible preparations (-1.00; -1.2) Tobacco, tobacco substitutes (-1.00; -2.3)</p>	<p style="text-align: center;">4rth area</p>

Figure 13 - Products mapping of Russian agricultural comparative advantages, BRICS (2000; 2014)



<p>1st area -88.5 % of the total exports</p> <p>Live animals (0.98;0.2) Fish, aquatic invertebrates (0.41;18.1) Products of animal origin (0.29;0.2) Cereals (0.58;4.2) Milling products, malt, starches (0.39;0.1) Animal, vegetable fats and oil (0.64;1.2)</p>	<p>2nd area -5.1 % of the total exports</p> <p>Vegetable plaiting materials, vegetable products (-1.00; 0) Cocoa and cocoa preparations (-0.42;0.1) Beverages, spirits and vinegar (-0.66;0) Residues, wastes of food industry, animal fodder (-0.48;0.4) Dairy products, eggs (-0.11; 0) Live trees, plants, bulbs (-1.00; 0)</p>
<p>3d area -6.4 % of the total exports</p> <p>Meat and edible meat offal (-1.00;-11.8) Edible vegetables, certain roots (-0.94;-2.1) Edible fruit, nuts (-0.95;-2.5) Coffee, tea, mate and spices (-1.00;-1.6) Oil seeds, oleagic fruits, grain (-0.86;-1.3) Lac, gums, resins, vegetable saps (-1.00;-0.3) Meat, fish and seafood prep. (-0.99;-0.4) Sugars and sugar confectionary (-1.00;-1.3) Cereal, flour, starch, milk preparations and products (-0.92;-0.1) Vegetable, fruit, nut and other preparations (-0.99;-0.5) Miscellaneous edible prep. (-0.96;-0.9) Tobacco, tobacco substitutes (-0.92;-1.7)</p>	<p>4rth area</p>

Source: Comtrade database, 2016, author's calculations

OECD members

OECD countries played one of the main roles in the Russian agricultural trade relations till 2014.

As it is known since August 2014 Russia implemented retaliatory sanctions to the most countries- members of the OECD. However, it is still impossible to find some information about trade relations between two sides, that's why in the present paper it is analyzed the most recent accessible period of 2014 year. Whereby, the real situation in the international trade at the present moment can be significantly different (Figure 14).

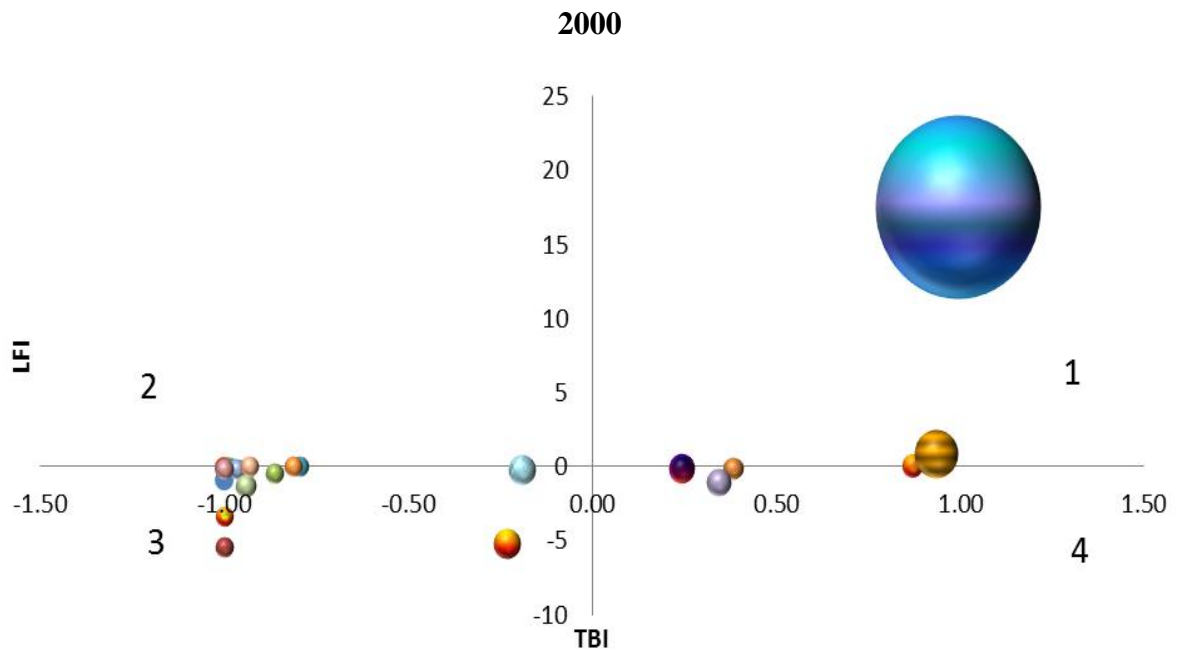
Speaking about changes during 14 years we should notice that in "Fish, aquatic invertebrates" Russia had comparative advantages in exports in 2000 and the share of these products was the highest in the total exports. The situation changed significantly in 2014 as Russia became importer from OECD of these agri-foods. However, the share in the total exports is still the biggest.

In accordance with maps Russia had comparative disadvantage in exports of tobacco and manufactured tobacco substitutes in 2000. It means that Russian production was not profitable in prices for its partners. In 2014 these set of products values increased in positive way and Russia had comparative advantages in exports.

Noticeable that in 2000 Russia was importer of cereals and had comparative disadvantage there. In 2014 it is possible to observe changes to the comparative advantages in exports for this category.

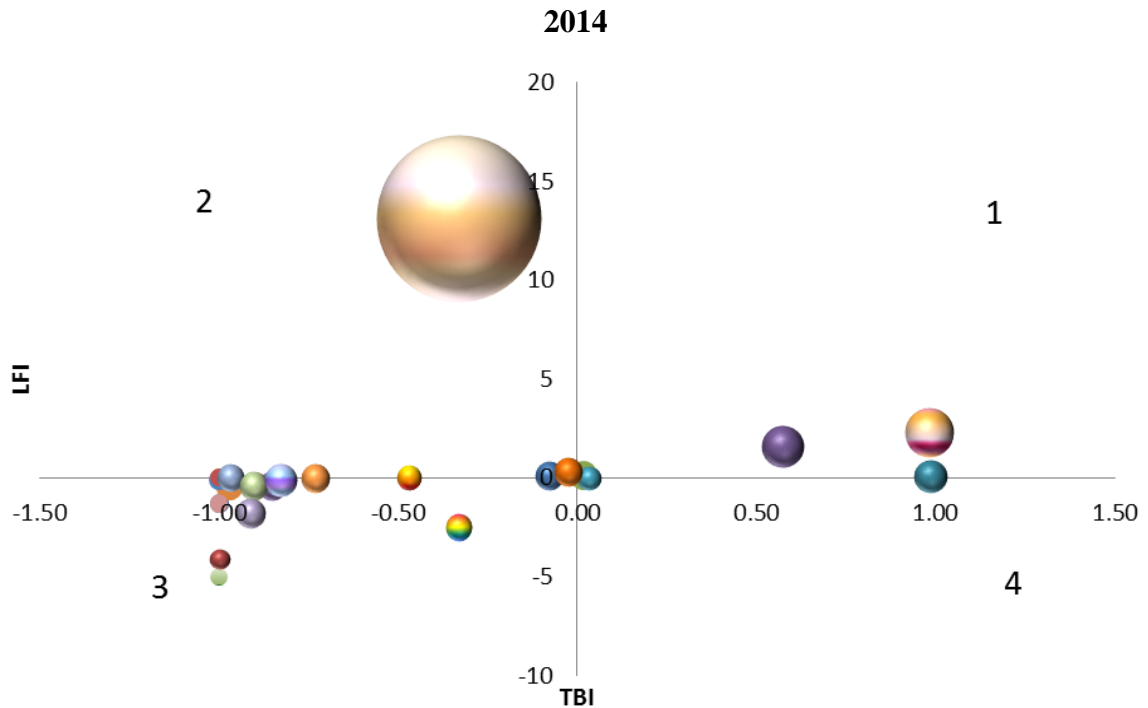
The highest import-dependency of Russia from OECD can be observed in: dairy products, eggs, honey, edible animal products; live trees, plants, bulbs, roots, cut flowers; edible fruit, nuts, peel of citrus fruit, melons; oil seeds, oleagic fruits, grain, seed, fruit, etc; lac, gums, resins, vegetable saps and extracts; meat, fish and seafood preparations; vegetable, fruit, nut and other preparations; miscellaneous edible preparations; beverages, spirits and vinegar; residues, wastes of food industry, animal fodder. Additionally, all these groups of products have comparative disadvantages. Thus Russia needs to develop its own production or stress on trade partners with higher possibilities of mutual benefits.

Figure 14 - Products mapping of Russian agricultural comparative advantages, OECD (2000; 2014)



<p style="text-align: center;">1st area - 95.4 % of the total exports</p> <p>Meat, fish and seafood preparations (0.93;0.9) Fish, aquatic invertebrates (0.99;17.6) Products of animal origin (1.00;0) Edible vegetables and certain roots and tubers (0.87;0.1)</p>	<p style="text-align: center;">2nd area – 0.01 % of the total exports</p> <p>Coffee, tea, mate and spices (-0.99; 0) Live trees, plants, bulbs, roots, cut flowers (-1.00; 0) Vegetable plaiting materials (-1.00; 0) Sugars and sugar confectionary (-0.79; 0) Cocoa and cocoa preparations (-0.81; 0) Tobacco, tobacco substitutes (-0.93; 0)</p>
<p style="text-align: center;">3d area –0.05 % of the total exports</p> <p>Live animals (-0.19;-0.2) Meat and edible meat offal (-1.00;-3.3) Dairy products, eggs, honey (-0.23;-5.2) Edible fruit, nuts, peel of citrus fruit, melons(-1.00;-5.4) Cereals (-1.00;-0.1) Milling products, malt, starches (-0.98;-0.1) Lac, gums, resins, vegetable (-1.00;-0.9) Animal, vegetable fats and oil, cleavage products (-0.86;-0.4) Cereal, flour, starch, milk prep.(-0.96;-0.1) Vegetable, fruit, nut and other prep.(-1.00;-0.1) Miscellaneous edible preparations(-0.94;-1.3)</p>	<p style="text-align: center;">4rth area – 4.5 % of the total exports</p> <p>Oil seeds, oleagic fruits, grain (0.38;-0.1) Residues, wastes of food industry, animal fodder (0.24;-0.1) Beverages, spirits and vinegar (0.34;-1)</p>

Figure 14 - Products mapping of Russian agricultural comparative advantages, OECD (2000; 2014)



<p>1st area -13.3 % of the total exports</p> <p>Products of animal origin (0.99;0.1) Coffee, tea, mate and spices (0.02;0.1) Cereals (0.57;1.6) Milling products, malt, starches, inulin, wheat glute (0.03; 0) Tobacco, tobacco substitutes (0.98;2.3)</p>	<p>2nd area – 84.4 % of the total exports</p> <p>Fish, crustaceans, molluscs, aquatic invertebrates (-0.33;13.1) Vegetable plaiting materials, vegetable products (-1.00; 0) Animal, vegetable fats and oil, cleavage products (-0.03;0.3) Sugars and sugar confectionary (-0.47;0) Cocoa and cocoa preparations (-0.73;0) Cereal, flour, starch, milk preparations and products (-0.97; 0) Live trees, plants, bulbs, roots, cut flowers (-1.00; 0) Edible vegetables and certain roots and tubers (-0.08;0.1)</p>
<p>3d area –2.3 % of the total exports</p> <p>Live animals (-1.00;-1.3) Meat and edible meat offal (-1.00;-5) Dairy products, eggs, honey, edible animal products (-1.00;-2.5) Edible fruit, nuts, peel of citrus fruit, melons (-1.00;-4.1) Oil seeds, oleagic fruits, grain, seed, fruit, etc. (-0.97;-0.5) Lac, gums, resins, vegetable saps and extracts (-1.00;-0.1) Meat, fish and seafood preparations (-0.85;-0.4) Vegetable, fruit, nut and other preparations (-1.00;-1.3) Miscellaneous edible preparations (-0.90;-0.4) Beverages, spirits and vinegar (-0.91;-1.8) Residues, wastes of food industry, animal fodder (-0.83;-0.1)</p>	<p>4rth area</p>

Source: Comtrade database, 2016, author's calculations

The rest of the world

In case of the rest countries where Russia has trade we can observe that in both periods there are more imported products than exported as circles are mainly occupying the left sides of maps (Figure 15).

In 2000 the country had the only comparative advantage in exports of milling products, malt, starches, inulin, wheat glute, etc. During 14 years these group of products lost their position on the global market. However such products as cereals, vegetable plaiting materials, vegetable products; animal, vegetable fats and oil, cleavage products became more profitable for Russia to export abroad.

Noticeable that in 2000 Russia had comparative disadvantage in exports of tobacco and tobacco substitutes. When in 2014 country became the net-importer, but with the same comparative disadvantage. It means that Russia needs to increase its own production and refuse from the part of tobacco imports from the rest of the world.

The highest value of comparative advantage in 2014 was cereals as the Lafay index was equal to 20.2. According to the product circle's size its share in the total export was also the biggest.

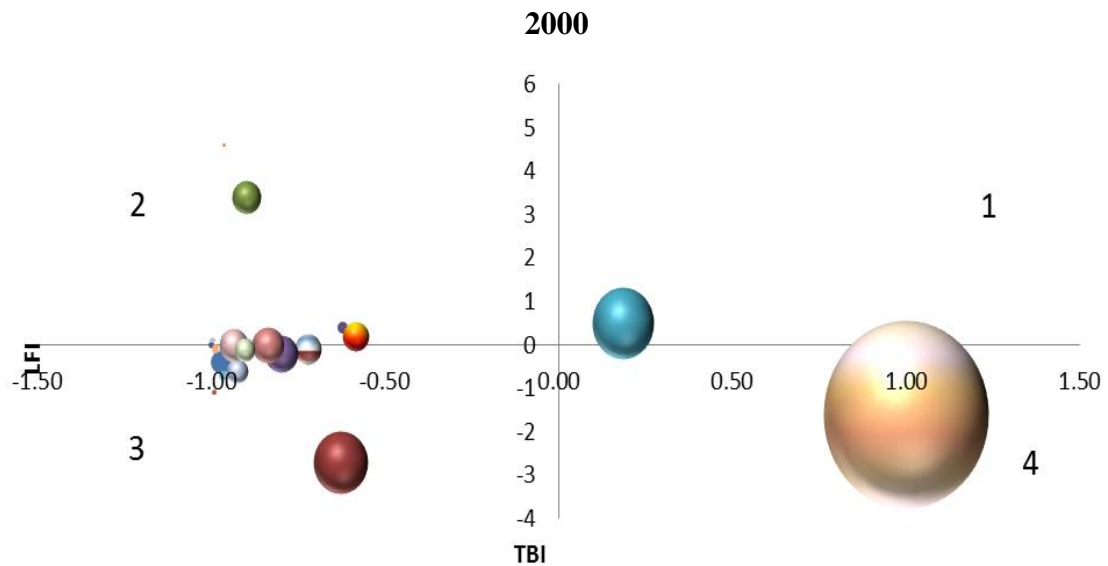
The lowest value of LFI index in 2014 is related with dairy products, eggs, honey (-4.4), Russia in this case is net-importer. Comparing these results with data of 2000 it is possible to notice that the country was also importer. However the value of Lafay index was positive and Russia had comparative advantages from imports of dairy products, eggs, honey, etc. Such negative changes can be explained with increased costs and prices to this category of products. Thus at the present moment it is more profitable for Russia to produce these agri-food products on the domestic level instead to purchase it from foreign partners.

Speaking about imported goods with comparative advantages in 2014 we should remind the following groups:

- ❖ Fish, aquatic invertebrates;
- ❖ Products of animal origin;
- ❖ Milling products, malt, starches, inulin, wheat glute;
- ❖ Residues, wastes of food industry, animal fodder.

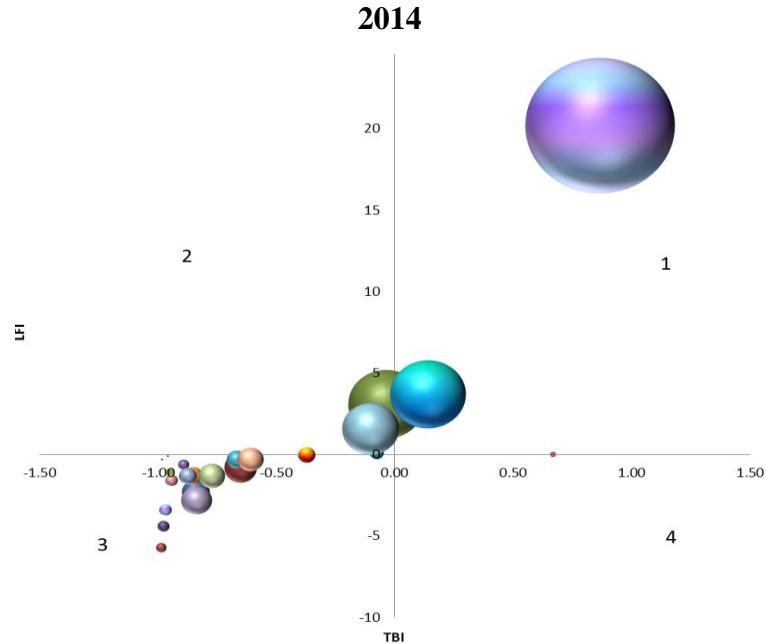
Russia imports more than exports these categories of products and has comparative advantages there.

Figure 15 - Products mapping of Russian agricultural comparative advantages, rest of the world (2000; 2014)



<p>1st area - 9.4 % of the total exports</p> <p>Milling products, malt, starches, inulin, wheat glute (0.18;0.5)</p>	<p>2nd area -7.6 % of the total exports</p> <p>Lac, gums, resins, vegetable saps and extracts (-0.97; 0) Vegetable plaiting materials, vegetable products (-0.84; 0) Animal, vegetable fats and oil, cleavage products (-0.59;0.2) Meat, fish and seafood preparations (-1.10;0.6) Miscellaneous edible preparations (-0.93;0) Residues, wastes of food industry, animal fodder (-1.00;0.1) Live animals (-1.00;0) Fish, aquatic invertebrates (-0.90;3.4) Dairy products, eggs, honey (-0.62;0.4) Products of animal origin (-1.00;0.1) Oil seeds, oleagic fruits, grain, seed, fruit, etc. (-0.96; 4.6)</p>
<p>3d area -15.4 % of the total exports</p> <p>Meat and edible meat offal (-0.63;-2.7) Live trees, plants, bulbs, roots, cut flowers (-0.93;-0.1) Edible vegetables and certain roots and tubers (-0.97;-0.4) Edible fruit, nuts, peel of citrus fruit, melons (-0.99;-1.1) Coffee, tea, mate and spices (-0.80;-0.2) Cereals (-0.72;-0.1) Sugars and sugar confectionary (-1.02;-2.2) Cocoa and cocoa preparations (-0.97;-0.7) Cereal, flour, starch, milk preparations and products (-0.99;-0.1) Vegetable, fruit, nut and other preparations (-0.93;-0.6) Beverages, spirits and vinegar (-0.90;-0.1)</p>	<p>4rth area -67.7 % of the total exports</p> <p>Tobacco, tobacco substitutes (1.00;-1.6)</p>

Figure 15 – Product s mapping of Russian agricultural comparative advantages, rest of the world (2000; 2014)



<p>1st area - 65 % of the total exports</p> <p>Cereals (0.87;20.2) Vegetable plaiting materials, vegetable products (0.67; 0) Animal, vegetable fats and oil, cleavage products (0.14;3.7)</p>	<p>2nd area – 21.5 % of the total exports</p> <p>Residues, wastes of food industry, animal fodder (-0.10;1.6) Fish, aquatic invertebrates (-0.04;3.1) Products of animal origin (-0.08;0.1) Milling products, malt, starches, inulin, wheat glute (-0.37; 0)</p>
<p>3d area – 13.4 % of the total exports</p> <p>Live animals (-0.98;-0.3) Meat and edible meat offal (-0.97; -3.4) Dairy products, eggs, honey (-0.98;-4.4) Live trees, plants, bulbs, roots, cut flowers (-1.00;-1) Edible vegetables and certain roots and tubers (-0.84;-2.3) Edible fruit, nuts, peel of citrus fruit, melons (-0.99;-5.7) Coffee, tea, mate and spices (-0.95;-1.1) Oil seeds, oleagic fruits, grain, seed, fruit, etc. (-0.65;-0.8) Lac, gums, resins, vegetable saps and extracts (-0.96;-0.1) Meat, fish and seafood preparations (-0.89;-0.6) Sugars and sugar confectionary (-0.67;-0.3) Cocoa and cocoa preparations (-0.85;-1.3) Cereal, flour, starch, milk preparations and products (-0.88;-1.3) Vegetable, fruit, nut and other preparations (-0.94;-1.6) Miscellaneous edible preparations (-0.77;-1.3) Beverages, spirits and vinegar (-0.84;-2.8) Tobacco, tobacco substitutes (-0.61;-0.3)</p>	<p>4rth area</p>

Source: Comtrade database, 2016, author's calculations

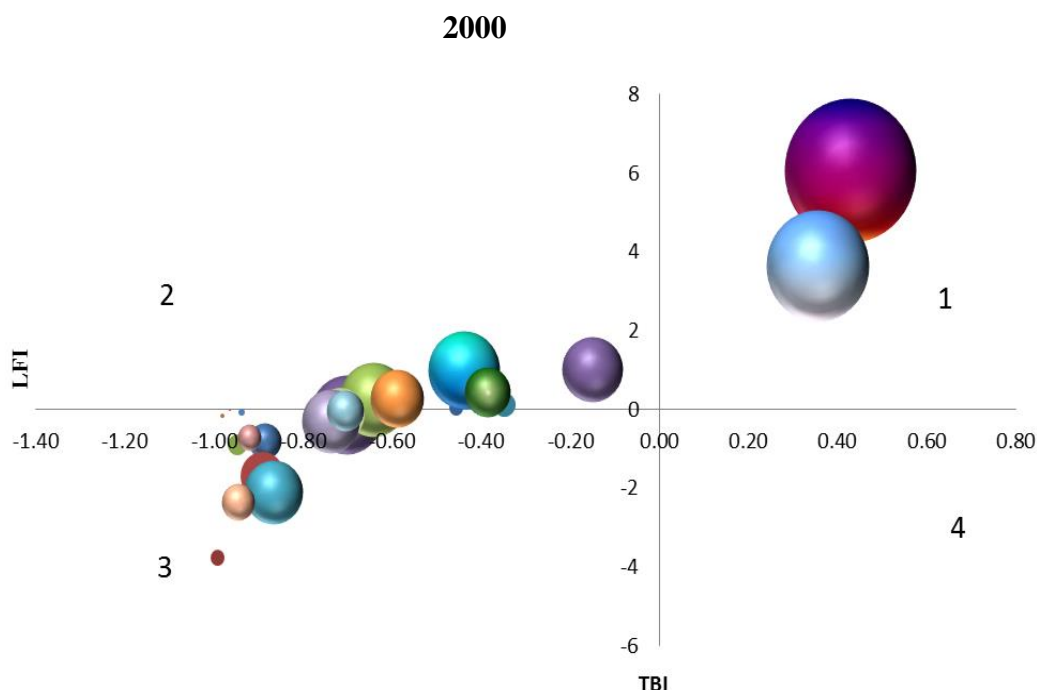
The whole world

Comparing products maps of 2000 and 2014, it is possible to notice that during 14 years the number of foods where Russia was net-importer with comparative advantages is decreased. At the present moment there are more products with comparative disadvantages in imports. It means that the Russian agricultural sector is stabilizing, as foodstuffs are mainly occupying the the first and third areas of the map.

Speaking about comparative advantages in exports it is necessary to mention that in 2014 the number of such products is increased. If in 2000 Russia had comparative advantages from exports of oil seeds, oleagic fruits, grain, seed, fruit, etc. and fish, aquatic invertebrates then in 2014 such commodities as Cereals; milling products, malt, starches, inulin, wheat glute; vegetable plaiting materials, vegetable products; animal, vegetable fats and oil, cleavage products became more essential for country. Noticeable that in 2000 category of products with the highest share in the total exports was foodstuffs with comparative advantages in imports (32.1%). However in 2014 the situation is changed and exports with comparative advantages consist 65.4 % of the total exports.

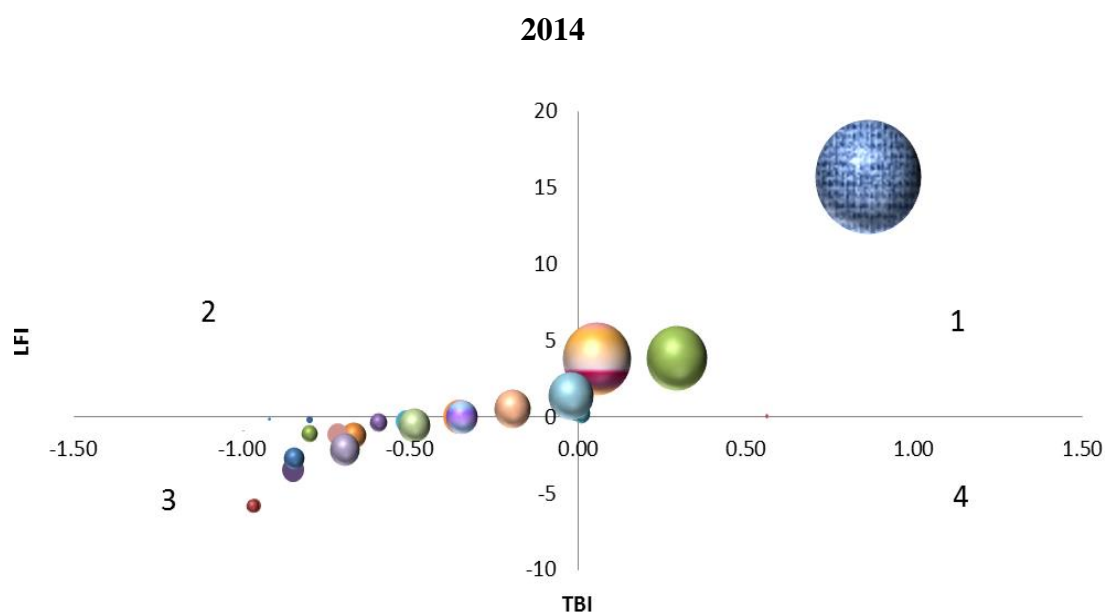
At the present moment Russia needs to concentrate on the types of products occupying the third map's area, where country has comparative disadvantages in imports and increase its own production. It is necessary to mention that most of these foodstuffs are included in the government's program of country's self-sufficiency. Doctrine of Food Security of the Russian Federation determines these products as important. Present plans to import substitute some groups of agri-foods are primarily aimed to increase production of all products where Russia is net-importer and has comparative disadvantages such as: live animals; meat and edible meat; dairy products, eggs, honey; meat, fish and seafood preparations; sugars and sugar confectionary, etc.

Figure 16 - Products mapping of Russian agricultural comparative advantages, the whole world (2000; 2014)



<p>1st area - 39.9 % of the total exports</p> <p>Oil seeds, oleagic fruits, grain, seed, fruit, etc. (0.36; 3.7) Fish, aquatic invertebrates (0.43;6.1)</p>	<p>2nd area –32.1 % of the total exports</p> <p>Vegetable plaiting materials, vegetable products (-0.97;0.0) Animal, vegetable fats and oil, cleavage products (-0.64;0.3) Meat, fish and seafood preparations (-0.15;1.0) Cocoa and cocoa preparations (-0.59;0.3) Cereal, flour, starch, milk preparations and products (-0.39;0.4) Residues, wastes of food industry, animal fodder (-0.71;0.0) Milling products, malt, starches, inulin, wheat glute (-0.60;0.2) Dairy products, eggs, honey (-0.44; 1.0) Products of animal origin (-0.35;0.1) Live animals (-0.46; 0.0)</p>
<p>3d area –27.9 % of the total exports</p> <p>Meat and edible meat offal (-0.99: -3.8) Live trees, plants, bulbs, roots, cut flowers (-0.98;-0.2) Edible vegetables and certain roots and tubers (-0.89;-0.8) Edible fruit, nuts, peel of citrus fruit, melons (-0.89;-1.7) Coffee, tea, mate and spices (-0.95;-0.9) Cereals (-0.70;-0.1) Lac, gums, resins, vegetable saps and extracts (-0.94;-0.1) Sugars and sugar confectionary (-0.87;-2.1) Vegetable, fruit, nut and other preparations (-0.92;-0.7) Miscellaneous edible preparations (-0.72;-0.1) Beverages, spirits and vinegar (-0.74;-0.3) Tobacco, tobacco substitutes (-0.95;-2.4)</p>	<p>4rth area</p>

Figure 16 - Products mapping of Russian agricultural comparative advantages, the whole world (2000; 2014)



<p>1st area - 65.4 % of the total exports</p> <p>Fish, aquatic invertebrates (0.06;3.8) Cereals (0.86;15.7) Milling products, malt, starches, inulin, wheat glute (0.01;0.2) Vegetable plaiting materials, vegetable products (0.56;0.0) Animal, vegetable fats and oil, cleavage products (0.29;3.9)</p>	<p>2nd area – 17.9 % of the total exports</p> <p>Cocoa and cocoa preparations (-0.35;0.0) Cereal, flour, starch, milk preparations and products (-0.35;0.0) Residues, wastes of food industry, animal fodder (-0.02;1.4) Tobacco, tobacco substitutes (-0.20;0.5) Products of animal origin (-0.01;0.1)</p>
<p>3d area –16.7 % of the total exports</p> <p>Live animals (-0.80;-0.2) Meat and edible meat offal (-0.96;-5.8) Dairy products, eggs, honey (-0.85;-3.5) Live trees, plants, bulbs, roots, cut flowers (-1.00;-0.9) Edible vegetables and certain roots and tubers (-0.85;-2.7) Edible fruit, nuts, peel of citrus fruit, melons (-0.97;-5.8) Coffee, tea, mate and spices (-0.80;-1.1) Oil seeds, oleagic fruits, grain, seed, fruit, etc. (-0.67;-1.2) Lac, gums, resins, vegetable saps and extracts (-0.92;-0.2) Meat, fish and seafood preparations (-0.59;-0.4) Sugars and sugar confectionary (-0.51;-0.3) Vegetable, fruit, nut and other preparations (-0.71;-1.1) Miscellaneous edible preparations (-0.49;-0.5) Beverages, spirits and vinegar (-0.69;-2.1)</p>	<p>4rth area</p>

Source: Comtrade database, 2016, author's calculations

Observing this part of investigation we can conclude that the main groups of countries where Russia has the comparative advantages in exports are Commonwealth of Independent States and Eurasian Economic Union. Noticeable that in 2014 there are no countries where Russia has comparative disadvantages in exports. However in case of imports such countries are mainly the members of the Organization for Economic Cooperation and Development. BRICS partners are the important in frames of imports, as Russia has comparative advantages in imports from these countries. The reason of such trade relation is less expensive prices on the final products because of the low costs of labor force in these countries.

However in 2014 Russia applied trade restrictions through sanctions against some European and Western countries, that's why at the present days the situation can be slightly different. Thus, the next paragraph is dedicated to the question of Russian agricultural sector competitiveness development taking into account its modern international trade policy.

7.2 Scenario of economic competitiveness development for Russia, particularly in the agribusiness industry

7.2.1 Research question 3 formulation

The third research question of the present work is the following:

What are the prospects of the Russian agricultural sector in the nearest future taking into account its present economic and political position in the world?

The development of the domestic agricultural sector and the implementation of Food Security Doctrine of the Russian Federation has become the main purpose of agrarian country's policy, especially in terms of the present bilateral sanctions of Russia with some European and Western countries.

The government is faced with the real tasks to provide country with domestic production of agri-foods and products. The word "import substitution" sounds as the plan for realization.

According to the book "International Economics" of Krugman, Obstfeld and Melitz *import-substitution is explained as governmental strategy of encouraging domestic production by limiting imports of the foreign goods.*

Thus, it means that at the present moment the agricultural sector in Russia needs to overcome all international trade problems and develop its own foods production to provide complete self-sufficiency.

7.2.2 Sanctions and Russian agricultural competitiveness development

In terms of sanctions, the most important issue for Russia is providing the population with the basic agricultural foods and commodities according to the Doctrine of Food Security.

Before to speak about Russian possible development ways in the agricultural sector, it is necessary to point out the main reasons of bilateral sanctions and their influence on the international trade relations.

After Crimean accession to the Russian Federation in March 2014, the United States implemented as a punishment tool such types of restrictions like sanctions. Obama's administration froze the placed assets and banned travelling to the US for more than one hundred people; the European Union's list was in two times even more. The involved amounts were great. For example, Kremlin's preferred bank "Rossiya" had frozen about 572 million USD after the sanctions implementation. After the Malaysian plane was shot down in July 2014 on the territory of the eastern Ukraine, the United States accused in it Russia and extended the restrictions list aimed to influence on key sectors of the Russian economy: arms manufacturers, state firms and banks.³⁸

As we can see from the ongoing situation in Russia these sanctions have real impact. First of all, the value of ruble is fallen against the US dollar by 76%. At the same time the inflation rate hit 16% in 2015 year. The situation deepened after the price collapse on the oil market as Russian federal budget is mainly supported with incomes from its natural resources exports.³⁹

³⁸ ASHFORD, E. 2016. Not-So-Smart Sanctions, The Failure of Western Restrictions Against Russia. *Foreign Affairs*, January/February 2016, pp.114-12. [Online]. Available at: <https://www.foreignaffairs.com/articles/russian-federation/2015-12-14/not-so-smart-sanctions>. [Accessed: 2016, January 11]

³⁹ FINCH, R. 2015. The Kremlin's Economic Checkmate Maneuver. *Foreign Military Studies Office (FMSO)*, Fort Leavenworth, USA. DOI: 10.1080/10758216.2015.1022392

As a respond to these restrictions in August 2014 the Russian Federation imposed foods import ban from Western countries.

These actions are related primarily with the following countries: European Union, United States, Canada, Australia and Norway.

In the Table 34 we can see all products banned to import to Russia from countries of the sanctions list.

Table 34 – List of products prohibited to import

HS Code	Commodities
0201	Meat of bovine animals, fresh or chilled
0202	Meat of bovine animals, frozen
0203	Meat of swine (pork), fresh, chilled or frozen
0207	Meat and edible offal of poultry (chickens, ducks, geese, turkeys and guineas), fresh, chilled or frozen
Parts of 0210	Meat, salted, in brine, dried or smoked
0301-0308	Fish and crustaceans, molluscs and other aquatic invertebrates
0401-0406	Milk and milk products
0701, 0702 00 000, 0703-0706, 0707 00, 0708-0714	Vegetables and edible roots and tubers
0801-0811, 0813	Fruit and nuts
160100	Sausages and similar products, of meat, meat offal or blood; food preparations based on these products
1901 90 110 0, 1901 90 910 0	Food preparations, including cheeses and curd, based on vegetable fats
2106 90 920 0, 2106 90 98 4, 2106 90 98 5, 2106 90 98 9	Food preparations, based on vegetable fats and containing milk

Source: Decree No. 778 of the Government of the Russian Federation, 2014

According to analysis implemented in the present paper we can notice that Russia is a net-exporter of cereals. Additionally country can provide the domestic market almost with all types of grain except rice, which Russia imports in small quantities. At the same time it

is the biggest exporter of sunflower oil and can satisfy the local market with produced in the country sugar and oils.

On the other hand, the main agricultural products in the Russian import were meat, milk and dairy products, some categories of vegetables (for example, tomatoes) and fruits.

For countries, whose economies were connected with the exports of agri-food products to Russia, the ban can mean serious implication. For example, 32.4 % of fruits were exported from the European Union to Russia in 2013. After sanctions implementation one third of the total fruits export have to find new markets. Such unexpected restrictions in the international trade relations built for the European producers serious obstacles for further production.

Russia was one of the biggest importers of fish and seafood preparations from Norway as its value reached 1.1 billion of USD in 2013. In case of pork the biggest exporters to Russia were Canada, Denmark, Netherlands and Germany; milk and milk products – Finland, France, Lithuania; fruits- Poland.⁴⁰

Thus, most of the products included in the sanctions list are commodities where Russia was net-importer and had comparative advantages from trade with western countries.

The fact is that after the restrictions implementation it was possible to observe the increase in foods prices (Table 35).

Table 35 - The impact of sanctions on the products price raise in 2014, %

Products	Share of product in inflation,% (All inflation = 100%)	Share of banned import in inflation,%
<i>Meat</i>	9.3	0.9
<i>Fish</i>	1.9	0.1
<i>Dairy products</i>	5.5	0.5
<i>Fruits</i>	2.0	0.4
<i>Vegetables</i>	2.0	0.1
<i>Total:</i>	20.6	2.1

Source: Analytical agency Capital Economics, 2015

⁴⁰ FAO, Russia's restrictions on imports of agricultural and food products: An initial assessment. [Online]. Available at: <http://www.fao.org/3/a-i4055e.pdf>. [Accessed: 2016, February 23].

According to the table above the most negative influence on the prices is connected with restrictions of meat imports. Decline in the international trade of this product increases its price on the Russian market in relation with inflation for 0.9%, which means losses for meat consumers.

However, the implementation of these sanctions can be a significant impetus for domestic production increase and providing of the country's self-sufficiency according to the Doctrine of the Food Security.

According to the State Program for Development of Agriculture for 2013-2020, published on the official website of the Ministry of Agriculture of the Russian Federation, the country will achieve the self-sufficiency targets by 2020 (Table 36).

Table 36 - Self-sufficiency targets for the main food groups in the State Programme, %

Products	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cereals	98.8	98.4	99.5	99.6	99.6	99.6	99.6	99.7	99.7
Sugar from sugar beet	77.9	79.9	79.3	80.7	82.0	83.5	88.6	91.7	93.2
Vegetable oil	83.6	81.1	83.0	83.8	84.6	85.7	86.4	87.0	87.7
Potatoes	96.8	97.5	98.2	98.5	98.6	98.6	98.6	98.7	98.7
Meat and meat products	74.8	77.8	78.9	80.9	84.3	85.9	86.9	87.8	88.3
Milk and milk products	78.9	76.6	81.0	81.9	83.0	84.3	85.9	87.8	90.2

Source: Ministry of Agriculture of the Russian Federation, 2012

Thus, the imposed by Kremlin sanctions against some categories of producers can help local producers to increase their production capacities and take key positions not only in the domestic market but also develop foreign trade relations.

According to the recent data Russian exports and imports are mainly decreased comparing 2014 and 2015 years (Table 37).

Table 37 - Agricultural trade values after imposed sanctions, 2014/2015, USD

Code	Products label	Export	Import	Export	Import	Changes, %	
		2014	2014	2015	2015	Export	Import
01	Live animals	28924796	259306295	21532754.6	236291861.4	-25.6	-8.9
02	Meat and edible meat offal	104770105	5527832689	119118248.3	3119159879	13.7	-43.6
03	Fish, aquatic invertebrates	2868303117	2566070020	2787590219	1355655689	-2.8	-47.2
04	Dairy products, eggs, honey	316642679	3824191149	226803064.2	2056405180	-28.4	-46.2
05	Products of animal origin	71953532	73255725	67975547.7	58008156.8	-5.5	-20.8
06	Live trees, plants, bulbs, roots	2094719	850405357	2855826.1	718858883.6	36.3	-15.5
07	Edible vegetables and certain roots	246279795	2959077603	402655762.1	1900410136	63.5	-35.8
08	Edible fruit, nuts, melons	87205146	5479577428	84039390.5	3959856989	-3.6	-27.7
09	Coffee, tea, mate and spices	144476096	1300100450	127819169.3	1222707324	-11.5	-6.0
10	Cereals	7086716335	524131426	5651329249	334926424	-20.3	-36.1
11	Milling products, malt, starches	182754027	179262189	262192533.3	117166118.7	43.5	-34.6
12	Oil seeds, oleagic fruits, grain	369835686	1859201008	393294414.8	1521107364	6.3	-18.2
13	Lac, gums, resins, vegetable saps and extracts	6990910	161257588	6328408.4	167631947.1	-9.5	4.0
14	Vegetable plaiting materials	12002714	3365170	11485201.3	3261267.4	-4.3	-3.1
15	Animal, vegetable fats and oil,	2266294523	1241624503	1874492421	1064603181	-17.3	-14.3
16	Meat, fish and seafood preparations	177445123	695793245	123467420.7	354564090.5	-30.4	-49.0
17	Sugars and sugar confectionary	260862725	811503567	176225041.4	598400402	-32.4	-26.3
18	Cocoa and cocoa preparations	652654449	1368553242	444130256.8	992082039.9	-32.0	-27.5
19	Cereal, flour, starch, milk	623218143	1283616987	512659826.8	739163839.1	-17.7	-42.4
20	Vegetable, fruit, nut and other prep.	267699250	1605048417	231347053.2	1086547218	-13.6	-32.3
21	Miscellaneous edible preparations	606375080	1765127991	501341732	1103629603	-17.3	-37.5
22	Beverages, spirits and vinegar	552170480	3068432104	424104979.7	1791354633	-23.2	-41.6
23	Residues, wastes of food industry	1229024577	1284221158	973516745.3	947122484.7	-20.8	-26.2
24	Tobacco, tobacco substitutes	816301741	1214035387	780630108.2	1118554847	-4.4	-7.9

Source: Federal Custom Service, 2016, author's calculation

The highest level of decline is observing in relation to such group of products:

- Meat and edible meat offal;
- Fish, aquatic invertebrates;
- Dairy products, eggs, honey;
- Meat, fish and seafood preparations;
- Cereal, flour, starch, milk;
- Beverages, spirits and vinegar.

The amount of changes for these products is more than 40 %. At the same time in 2015 Russia increased the volume of exports in such categories of agro-foods as:

- Live trees, plants, bulbs, roots;
- Edible vegetables and certain roots;
- Milling products, malt, starches;
- Oil seeds, oleagic fruits, grain.

Thus, the results of the present Russian trade policy in the agricultural sector can be determined in the decrease of the foods imports and raise of the domestic production. For example, according to the relevant data observation of the Ministry of Agriculture of the Russian Federation, the country's cattle and poultry for slaughter (in live weight) production is increased in January of 2016 year for 5.1 % comparing with the same period of the last year. The growth is achieved mainly by increasing the volume of pigs' production by 8.9% and poultry - by 5.1%. At the same time the production of cattle for slaughter declined during of this period by 5.7%.

Thus we can conclude that the recent import ban facilitated the domestic production development and strengthen the role of local agricultural firms. Taking into account Russian experience it is necessary to conduct the targeted agricultural policy to stabilize the situation on the food market. It will be possible to implement only through the strengthening of state sector in support of technical upgrading resources production.⁴¹

Arriving at a conclusion of the present paragraph it is necessary to notice that there is uncertainty about how long the restrictions in imports will exist. However, in short-run

⁴¹ ZUBAREV I.S. 2015. *The agricultural sector in Russia in the conditions of international sanctions: Challenges and Responses*. Moscow. RGAU-Moscow Agricultural Academy. pp. 435-438. ISBN 978-5-9675-1145-5

perspective this ban means less numbers of competitors on the domestic market and possibilities for local producers. At the same time speaking about import substitution of some categories of food we should notice that Russia has still to purchase agricultural equipment abroad. It makes the process of the import substitution planned by government more difficult, primarily because of the weak ruble. Thus, besides of the domestic production development the country is looking for new import-partners.⁴²

Thus, sanctions implemented by Russia can be defined as profitable for local business but can influence negatively on the foods products prices in short-run before the stabilization of the domestic agricultural sector production. As a solution for the effective agrarian complex development can be correctly implemented government's policy in relation to each region in Russia. It is necessary to develop the certain control mechanism taking into account the peculiarities of each region and provide the self-sufficiency in products basically on the regional level. Additionally, the production growth is impossible without the innovation progress. The development of the national technologies particularly in the agricultural sector will increase the possibilities of the country's food security providing. Active support of small and medium-sized business through implementation of tax exemptions will lead to products prices adjustments because of the new players on the market.

Thus, all these measures can help the Russian agricultural sector not only to survive but also be competitive on the global market.

⁴² Interview of the Russian President's Adviser, Sergey Glaziev, for the radio program "Without questions", 29 January 2016. [Online]. Available at: <https://www.youtube.com/watch?v=pidhyDmyZ5M>. [Accessed: 2016, March 10].

8. Results of research findings

During the investigation of the present Russian trade performance and its comparative advantage development, different statistical, econometric and index methods and tools were applied. Observing the current economic and trade situation in Russia additionally helped in understanding the future the country's competitive possibilities.

Recently implemented sanctions determined changes in the trade orientations from the European and Western countries to the cooperation with Asia, Africa, Latin America, CIS and EAEU.

The analysis provided in this paper is mainly aimed to find answers on research questions formulated in the Diploma Thesis objectives. As stated in the first question, the influence of federal budget expenditures on the agricultural sector of Russia's GDP growth was investigated. The simple regression model was the main methodological tool used to do so.

It was taken 10 years period for analysis from 2005 to 2014. It was used to analyze the ten year period between 2005 and 2014. Results of the analysis showed that rational distribution of the federal budget, particularly to the agricultural sector, can lead to the country's economic growth. Additionally, the indicator of expenditures effectiveness was calculated for each year that was analyzed. According to the results in 2008, 2010, 2012 and 2014 years budgetary resources were used in the agricultural sector with the maximum benefits for the economy. In all other cases money spent for agro-food production was not enough for the economic growth and GDP reserves to increase. However, received results are ambiguous in terms of the regression parameters perception as they show a direct relationship with GDP per capita.

Whereby, the Russian government should use resources from the federal budget as much as possible efficient taking into account such types of connections between expenditures and GDP growth.

The second research question is dedicated to the problems of the Russian agrarian foods and products comparative advantages on the global market. The analysis was based on the application of product mapping and index calculations: Grubel-Lloyd index of intra-industry trade, Balassa index, Lafay index.

The findings in this paper show pertain to the trade relations of Russia with the whole world from 2000 – 2014, a total duration of 14 years. All countries were divided

into five blocks: the Commonwealth of Independent States members, the Eurasian Economic Union, BRICS, OECD participants and the rest of the world. In the case of agricultural products division, the Harmonized System of the United Nations (HS) for 24 types of products was used.

In accordance with results of index analysis Russia has the most comparative advantages on the international market in the following groups of agricultural products: HS-03 Fish, aquatic invertebrates; HS-10 Cereals; HS-12 Oil seeds, oleaginous fruits; HS-15 Animal vegetable fats and oils, cleavage products, etc. Taking into account all individual countries where Russia has international trade relations in agriculture we should bethink firstly Turkey, Kazakhstan, the Republic of Korea, Azerbaijan and Iran. According to analysis Russia had the highest Lafay index value in 2014 with these countries.

Concluding the product mapping analysis it is possible to notice that the main groups of countries where Russia has comparative advantages in exports are the Commonwealth of Independent States and the Eurasian Economic Union. BRICS partners are also crucial in frames of imports, as Russia has comparative advantages in imports from these countries. This trade relation exists because the price on final products is less expensive. The smaller price is explained by the low costs of the labor force in these countries. The countries where Russia has comparative disadvantages in some agricultural products are mainly members of the Organization for Economic Cooperation and Development.

The third research question of the investigation is aimed to observe the current trade policy in Russia and possibilities for agricultural sector competitiveness development taking into the account imports ban.

Thus, sanctions implemented by Russia can be defined as profitable for local business, but potentially damaging to the price of food products in the short-run period before the domestic agricultural sector has stabilized production. These restrictions are aimed to promote domestic production and substitute foods imported from the sanction's list countries. It can be concluded that the import ban is an impetus for Russian agricultural sector development, and should be followed with active support of agrarian small and medium-sized businesses and innovation and technological progress. All these measures will lead to the full country's self-sufficiency in basic products targeted in the Doctrine of Food Security of the Russian Federation.

9. Conclusion

Concluding the present paper it is necessary to compare the aims determined in the “Objectives” and received results.

During the analysis, changes in the territorial and commodity structures primarily related with the imposed by Russia import ban were specified. Additionally, comparative advantages of Russia in different categories of the agricultural products were studied. At the same time in the present investigation it is possible to observe the peculiarities of the Russian food security and food safety policy primarily connected with the Doctrine of Food Security of the Russian Federation. Additionally, the current position of Russia on the agricultural trade market and its possible trade performance changes in terms of the present global international relations was analyzed. These aims were achieved through the set of sub-goals.

- 1) It was explained the historical significance of the international trade competitiveness. According to the literature overview the problem of the rational trade between countries was interested economists from the times of mercantilists. It was studied the main theories of the international trade of such scientists as Adam Smith, David Ricardo, Eli Hechsher, Bertil Ohlin, Paul Samuelson, Michael Porter. All concepts considered in the paper reflect the evolution of the international trade theory and prove the importance of this issue investigation.
- 2) The second sub-goal of the present work was to identify the common tools of the modern international trade policies such as import tariffs, import quotas, voluntary export restraint and other trade policy tools. All these trade regulation measures have real examples in the Russian agricultural trade practice.
- 3) The next sub-goal was related with Russian membership in the World Trade Organization and peculiarities of its prospects there. It is possible to conclude that Russian accession to the World Trade Organization has both positive and negative effects. On the one hand, this membership gives additional opportunities for Russia to gain foreign markets of the organization’s members and harmonize its legislative system according to the WTO requirements and rules. These changes are increasing the potential foreign investments to the Russian economy, because of improved legislation. Additionally, WTO membership extends the opportunities for products exports to the European Union and other countries. Country gained the chance to

settle economic disputes related with anti-dumping cases in frames of the WTO. On the other hand, the government support to agricultural sector is the important part of the economic growth. However, in the conditions of the WTO membership it is difficult to realize for new accessed countries. According to the WTO rules Russia has to reduce expenditures to agricultural sector and create favorable international trade policy for import-products, which is difficult to realize in terms of the present sanctions war.

- 4) To specify importance of the agricultural sector in the country's GDP and economic growth it was built the simple regression model and found the equation proving strong relation between expenditures to the agricultural sector and country's economic progress. Whereby, Russian government should use resources from the federal budget as much as possible efficient taking into account such types of connections between expenditures and GDP growth.
- 5) The fifth goal of the present analysis was to identify main products-drivers, where Russia has comparative advantages on the global agricultural market. Received results showed that Russia has the comparative advantages in the such groups of agricultural products: HS-03 Fish, aquatic invertebrates; HS-10 Cereals; HS-12 Oil seeds, oleagic fruits; HS-15 Animal vegetable fats and oils, cleavage products, etc.
- 6) According to the analysis Russia had the highest Lafay index value and it means comparative advantages in trade in 2014 with the following countries: Turkey, Kazakhstan, Republic of Korea, Azerbaijan and Iran. As main directions of international trade the agricultural sector can be also countries of the Eurasian Economic Union, the Commonwealth of Independent States and BRICS.
- 7) The seventh sub-goal was connected with the current position of the Russian agricultural trade and impact of import bans on its competitiveness development. It necessary to emphasize that in short-run perspective this ban means less numbers of competitors on the domestic market and possibilities for local producers. As it is known the present Russian policy is targeted on the import substitution of the goods categories involved in the sanction's list. To provide stable and effective agrarian complex development it is necessary to implement government's policy in relation to each region in Russia, providing the self-sufficiency in products basically on the regional level. The production growth is impossible without the

innovation progress and national technologies development. At the same time government support of small and medium-sized business should be more essential and can be implemented through changes in the taxation and subsidiary systems. All these tools and economic policies will provide the stable development of the agrarian sector and increase its competitiveness on the international market.

Concluding results of the Diploma Thesis it is possible to mention that all aims and sub-goals are achieved and it is found answers for all formulated research questions. The present analysis can be used for the further investigations in this sphere.

10. References

1. ASHFORD, E. 2016. Not-So-Smart Sanctions, The Failure of Western Restrictions Against Russia. *Foreign Affairs*, January/February 2016, pp.114-12. [Online]. Available at: <https://www.foreignaffairs.com/articles/russian-federation/2015-12-14/not-so-smart-sanctions>. [Accessed: 2016, January 11].
2. ASHKHATOVA, L.I. BULNINA I.S. 2014. Quality of life (QOL) improvement as a strategic resource of sustainable social and economic development of a region. *Life Science Journal*, 11(6), pp. 354-357. ISSN:1097-8135.
3. BLAKE, J. KOSTOMAROVA, A. 2011. Russian agriculture from global perspectives. *Russia Today*. 2011, March 31. [Online]. Available at: <https://www.rt.com/business/russia-agriculture-perspectives-unilever/>. [Accessed: 2016, January 12].
4. CARBAUGH, J. Robert. 2009. *International Economics, 12th Edition*. South-Western Cengage Learning, Central Washington University. ISBN 13:978-0-324-58148-5.
5. DEBORAH, J. 2015. Food Security, Farming, and the WTO and CAFTA. *Global Exchange Organization*. [Online]. Available at: <http://www.globalexchange.org/resources/wto/agriculture>. [Accessed: 2015, December 15].
6. DIOF, J. 2008. High Food Prices: Causes and Possible Actions. *Food and Agricultural Organization of the United Nations (FAO)*. [Online]. Available at: <http://www.fao.org/docrep/012/i1059e/i1059e00.pdf>. . [Accessed: 2016, January 15].
7. DOUGHERTY, C. 2007. *Introduction to econometrics*. Oxford: Oxford University Press. ISBN: 0199280967, 9780199280964.
8. EROKHIN, V. 2014. WTO Agreement on Agriculture and its Implication on Rural Development Policies in Russia. *EU agrarian Law*, 3(1). pp.31-36. DOI: 10.2478/eual-2014-0005.
9. EXPERT RUSSIA. 2016. *The Ministry of Agriculture has supported the excise tax on palm oil*. [Online]. Available at: <http://expert-russia.com/biznes-i-finansy/528-minselhoz-podderzhal-akciz-na-palmovoe-maslo.html> . [Accessed: 2016, February 23].

10. FAO Report 2015-2016. [Online]. Available at: <http://www.fao.org/3/a-i5090e.pdf>, 2016. [Accessed:2016, January 13].
11. FAO, Russia's restrictions on imports of agricultural and food products: An initial assessment. [Online]. Available at: <http://www.fao.org/3/a-i4055e.pdf>. [Accessed: 2016, February 23].
12. FINCH, R. 2015. The Kremlin's Economic Checkmate Maneuver. *Foreign Military Studies Office (FMSO), Fort Leavenworth, USA*. DOI: 10.1080/10758216.2015.1022392.
13. GREENE, W. 2003. *Econometric analysis*. Upper Saddle River, N.J.: Prentice Hall. pp. 36-41 ISBN 0-13-139538-6.
14. HOEKMAN, B. 2004. Developing Countries and the WTO Doha Round: Market Access, Rules and Differential Treatment. *Journal of Economic Integration*. 19(2), pp.205-229 [Online]. Available at: <http://www.jstor.org/stable/23000779>. [Accessed:2015,September 21].
<http://www.eaeunion.org/> . [Accessed: 2016, October 13].
<http://www.econlib.org/library/Smith/smWN1.html#B.I>, Ch.1, Of the Division of Labor. [Accessed: 2015, September 14].
<https://www.youtube.com/watch?v=pidhyDmyZ5M>. [Accessed: 2016, March 10].
15. Interview of the Russian President's Adviser, Sergey Glaziev, for the radio program "Without questions", 29 January 2016. [Online]. Available at:
16. ISHCHUKOVA, N., SMUTKA, L. 2013. Revealed comparative advantage of Russian agricultural exports. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 61(4). pp.941-952. ISSN: 1644-0757
17. ISHCHUKOVA, N., SMUTKA, L. 2014. The formation of Russian agrarian trade structure: inter-industry vs. intra-industry trade activities. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 62(6). pp.1293-1299. ISSN: 1211-8516.
18. IVANOVSKY Z. V. 2016. *BRICS in the mirror of the world press*. [Online]. Available at: <http://www.brics.mid.ru/>. [Accessed: 2016, January 12].
19. KENNETH A. 2009. *The Princeton Encyclopedia of the World Economy*. Princeton University Press. ISBN: 9781400830404

20. LAFAY, G.1992. *The Measurement of Revealed Comparative Advantages in M.G.* International Trade Modeling, Chapman and Will. London. ISBN 10: 041245003/0-412-45000-3
21. LEAMER, Edward E. 1995. *The Heckscher-Ohlin Model in theory and practice.* Princeton studies in international finance. ISBN 0-88165-249-0.
22. Ma, J. and Lu, Y. 2011. Free Trade or Protection: A Literature Review on Trade Barriers. *RWE*. 2(1). [Online]. Available at: [www. sciedu.ca/rwe](http://www.sciedu.ca/rwe). [Accessed: 2016, January 12].
23. OBSTFELD, M. KRUGMAN, R. 2006. *International economics : theory and policy.* Boston: Pearson/Addison Wesley. ISBN 978-0-321-53035-6
24. Official website of the *Association of Southeast Asian Nations*. [Online]. Available at: <http://www.asean.org> [Accessed:2016, February 12].
25. Official website of the *Eurasian Economic Union*: [Online]. Available at:
26. Official website of *the European Free Trade Association*. [Online]. Available at: <http://www.efta.int/>. [Accessed: 2016, January 25].
27. Official website of *the Federal Custom Service of Russia*. [Online]. Available at: <http://www.customs.ru/> [Accessed: 2016, February 28].
28. Official website of the *Federal Treasury of the Russian Federation*. [Online]. Available at: <http://www.roskazna.ru/> [Accessed: 2015-2016].
29. Official website of the *Global Affairs Canada*. [Online]. Available at: <http://www.international.gc.ca/>. [Accessed: 2016, February 10].
30. Official website of *the Ministry of Agriculture of the Russian Federation*: [Online]. Available at: <http://mcx.ru/>. [Accessed: 2016, February 14].
31. Official website of the *World Trade Organization*. [Online]. Available at: <https://www.wto.org>. [Accessed: 2015-2016].
32. OLARREAGA M. and PAYTON L. 2010. Export Promotion Agencies: Do they work? *Journal of Development Economics*. 91(2). pp.257-265. DOI: 10.1016/j.jdeveco.2009.09.003
33. PORTER, M. 1990. *The competitive advantage of nations*. New York: Free Press. ISBN 0-684-84148-7
34. PRUNELLO, J. 2014 .Changing role of trade promotion. *International Trade Forum*. 4(1). pp.14-15. ISSN: 00208957

35. SMITH A. “Wealth of nations”. [Online]. Available at:
36. SUTYRIN S., LOMAGIN N., SHEROV-IGNATIEV V., NAZAROVA M., LISITSYN N. 2012. Russia’s Accession to the WTO: Major commitments, possible implications. *International Trade Centre*. [Online]. Available at: <http://www.intracen.org/uploadedFiles/Russia%20WTO%20Accession%20English.pdf>. [Accessed: 2015, September 24].
37. SVATOŠ, M. SMUTKA, L. ISHCHUKOVA, N. 2014. The position of agriculture in the Russian Federation – the last two decades development overview. *Agricultural Economics*. 60 (11).pp. 489-502. ISSN: 0139-570X.
38. THE RUSSIAN FEDERATION. 2010. *Food Security Doctrine of the Russian Federation*. Available at: <http://www.kremlin.ru/news/6752>
39. WALLERSTEIN, I. 2015. BRICS: the myth of our time. [Online]. Available at: <http://inosmi.ru/economic/20160113/235038002.html> [Accessed: 2015, September 16].
40. World Trade Organization statistics [Online]. Available at: https://www.wto.org/english/res_e/statis_e/world_commodity_profiles14_e.pdf, [Accessed: 2015, October-2016, February].
41. WORLD TRADE ORGANIZATION. 2011. *News Items, Working Party Seals the Deal on Russia’s Membership Negotiations*. [Online]. Available at: http://www.wto.org/english/news_e/news11_e/acc_rus_10nov11_e.htm. [Accessed: 2015, November 12]
42. ZUBAREV I.S. 2015. *The agricultural sector in Russian the conditions of international sanctions: Challenges and Responses*. Moscow. RGAU-Moscow Agricultural Academy. pp. 435-438. ISBN 978–5-9675–1145–5

Appendices

Appendix 1 – Russian agricultural trade in relation to all countries and LFI index in 2014 (USD)

Country	Export	Import	Trade Balance	LFI
Afghanistan	29 906 021	11253959	18 652 062	0.06
Albania	47805934	9229345	38576 589	0.11
Algeria	151539973	7460281	144079692	0.38
Anguilla	0	2200	-2200	0.00
Antigua and Barbuda	0	547	-547	0.00
Areas, nes	23786711	40125	23746586	0.06
Argentina	184381	939258759	-939074378	-1.02
Armenia	163402715	243688804	-80286089	0.16
Australia	6990612	200431185	-193440573	-0.20
Austria	12606708	191001466	-178394758	-0.17
Azerbaijan	772298349	303988425	468309924	1.66
Bahamas	0	1832895	-1832895	0.00
Bahrain	314316	0	314316	0.00
Bangladesh	43798942	48410221	-4611279	0.06
Barbados	0	310890	-310890	0.00
Belarus	17025095	3750014042	-3732988947	-4.02
Belgium	86393027	453598460	-367205433	-0.27
Benin	54538	21242	33296	0.00
Bolivia (Plurinational State of)	0	2371847	-2371847	0.00
Bosnia Herzegovina	0	6675996	-6675996	-0.01
Br. Virgin Isds	1855992	273	1855719	0.00
Brazil	996677	3593949648	-3592952971	-3.89
Bulgaria	4444192	61052512	-56608320	-0.05
Burkina Faso	0	88	-88	0.00
Burundi	8675195	1567978	7107217	0.02
Cabo Verde	0	4415	-4415	0.00
Cambodia	2041603	5936169	-3894566	0.00
Cameroon	742169	3058714	-2316545	0.00
Canada	7971287	485823269	-477851982	-0.51
Chile	1162785	754193996	-753031211	-0.81
China	1088819762	1870438926	-781619164	0.77
China Macao SAR	0	296267	-296267	0.00
China, Hong Kong SAR	54413157	461819	53951338	0.14
Colombia	0	118012277	-118012277	-0.13
Comoros	18200	362106	-343906	0.00
Congo	0	8133	-8133	0.00
Costa Rica	39667	66782053	-66742386	-0.07
Côte d'Ivoire	114075	226162576	-226048501	-0.24
Croatia	11851841	27569630	-15717789	0.00
Cuba	6404415	60678302	-54273887	-0.05

Appendix 1 – Russian agricultural trade in relation to all countries and LFI index in 2014 (USD)

Country	Export	Import	Trade Balance	LFI
Cyprus	52548446	12306681	40241765	0.12
Czech Rep.	29128584	133108392	-103979808	-0.07
Dem. People's Rep. of Korea	37075940	24870	37051070	0.10
Dem. Rep. of the Congo	0	1734	-1734	0.00
Denmark	96314739	387224376	-290909637	-0.17
Dominica	783285	0	783285	0.00
Dominican Rep.	756	4057795	-4057039	0.00
Ecuador	12915	1240539348	-1240526433	-1.34
Egypt	0	443598518	-443598518	-0.48
El Salvador	18080	579164	-561084	0.00
Equatorial Guinea	214712	0	214712	0.00
Estonia	20336281	53796803	-33460522	-0.01
Ethiopia	8511626	33112329	-24600703	-0.01
Faeroe Isds	0	172675114	-172675114	-0.19
Falkland Isds (Malvinas)	6730	1054971	-1048241	0.00
Fiji	0	10378	-10378	0.00
Finland	78162100	413487512	-335325412	-0.25
France	42577819	1290681672	-1248103853	-1.29
Gabon	24700	0	24700	0.00
Gambia	1605607	0	1605607	0.00
Georgia	355131970	289189320	65942650	0.60
Germany	199400594	1519860087	-1320459493	-1.13
Ghana	14475378	101028178	-86552800	-0.07
Greece	59260814	238087663	-178826849	-0.11
Greenland	0	24866222	-24866222	-0.03
Grenada	0	31661	-31661	0.00
Guatemala	74415	19800356	-19725941	-0.02
Guinea	35154	55129	-19975	0.00
Guinea-Bissau	31220	104183	-72963	0.00
Guyana	0	723909	-723909	0.00
Haiti	6560820	2650	6558170	0.02
Honduras	428	11039407	-11038979	-0.01
Hungary	423257	278800524	-278377267	-0.30
Iceland	114123	239485725	-239371602	-0.26
India	63603897	666662094	-603058197	-0.56
Indonesia	55134984	817311669	-762176685	-0.74
Iran	598708243	248339208	350369035	1.27
Iraq	39957938	0	39957938	0.10
Ireland	4213365	165275417	-161062052	-0.17

Appendix 1 – Russian agricultural trade in relation to all countries and LFI index in 2014 (USD)

Country	Export	Import	Trade Balance	LFI
Israel	212934847	444423246	-231488399	0.07
Italy	172314784	1300661805	-1128347021	-0.97
Jamaica	0	1060849	-1060849	0.00
Japan	247243981	35814766	211429215	0.60
Jordan	163075297	2649058	160426239	0.42
Kazakhstan	1691763698	277740279	1414023419	4.05
Kenya	132479268	149030283	-16551015	0.18
Kuwait	15462252	0	15462252	0.04
Kyrgyzstan	216990125	17500676	199489449	0.54
Lao People's Dem. Rep.	176306	14304	162002	0.00
Latvia	291180348	156782726	134397622	0.58
Lebanon	87889368	8967343	78922025	0.22
Lesotho	459236	0	459236	0.00
Liberia	374221	0	374221	0.00
Libya	132578614	841333	131737281	0.34
Lithuania	135437737	310076597	-174638860	0.01
Luxembourg	0	514686	-514686	0.00
Madagascar	6736770	1843733	4893037	0.02
Malawi	17505244	73611980	-56106736	-0.03
Malaysia	7278754	241156528	-233877774	-0.24
Mali	0	39681	-39681	0.00
Malta	0	7832	-7832	0.00
Mauritania	7726771	3271267	4455504	0.02
Mauritius	0	5442302	-5442302	-0.01
Mexico	123937431	80780630	43156801	0.23
Mongolia	144750803	7202223	137548580	0.36
Montenegro	365	4332647	-4332282	0.00
Morocco	148830646	432944603	-284113957	-0.09
Mozambique	37936978	37962036	-25058	0.06
Myanmar	433950	27688693	-27254743	-0.03
Namibia	0	3562152	-3562152	0.00
Nauru	0	15	-15	0.00
Nepal	0	325444	-325444	0.00
Netherlands	641565805	1551370819	-909805014	-0.03
New Caledonia	330158	0	330158	0.00
New Zealand	1286839	219958478	-218671639	-0.23
Nicaragua	13842728	4643843	9198885	0.03
Nigeria	206577759	15851707	190726052	0.51
Norway	270948118	625983878	-355035760	0.02

Appendix 1 – Russian agricultural trade in relation to all countries and LFI index in 2014 (USD)

Country	Export	Import	Trade Balance	LFI
Oman	68896296	0	68896296	0.18
Other Asia, nes	12364978	5107489	7257489	0.03
Pakistan	55097307	80923418	-25826111	0.05
Panama	0	3148737	-3148737	0.00
Papua New Guinea	2706	5694160	-5691454	-0.01
Paraguay	19004	15844338	-15825334	-0.02
Peru	44747086	93984486	-49237400	0.01
Philippines	9195329	42211784	-33016455	-0.02
Poland	154575265	1158550894	-1003975629	-0.86
Portugal	26439826	59158639	-32718813	0.00
Qatar	18385720	0	18385720	0.05
Rep. of Korea	1192032674	138714259	1053318415	2.92
Rep. of Moldova	100440671	136842839	-36402168	0.11
Romania	3617369	74825479	-71208110	-0.07
Rwanda	15133738	2388630	12745108	0.04
Saudi Arabia	361180497	98461	361082036	0.93
Senegal	26934410	5301045	21633365	0.06
Serbia	54358821	366490750	-312131929	-0.26
Seychelles	272680	1637879	-1365199	0.00
Sierra Leone	81166	667	80499	0.00
Singapore	561528	21223647	-20662119	-0.02
Slovakia	1283566	24627314	-23343748	-0.02
Slovenia	2033621	40819935	-38786314	-0.04
South Africa	200307144	276580580	-76273436	0.22
Spain	116326977	959598291	-843271314	-0.74
Sri Lanka	21755801	246420455	-224664654	-0.21
State of Palestine	111667	534532	-422865	0.00
Sudan	250430188	1145507	249284681	0.64
Sweden	37419125	151545295	-114126170	-0.07
Switzerland	30761312	286934150	-256172838	-0.23
Syria	30551857	5291673	25260184	0.07
Tajikistan	0	1795581	-1795581	0.00
TFYR of Macedonia	0	50721703	-50721703	-0.05
Thailand	9931270	241537292	-231606022	-0.24
Togo	48492	3700	44792	0.00
Tunisia	88814549	17418637	71395912	0.21
Turkey	2369204398	1765309093	603895305	4.18
Turkmenistan	170322277	517738	169804539	0.44
Uganda	30839028	13740047	17098981	0.06

Appendix 1 – Russian agricultural trade in relation to all countries and LFI index in 2014 (USD)

Country	Export	Import	Trade Balance	LFI
Ukraine	552807673	1005619885	-452812212	0.33
United Arab Emirates	157545538	53564543	103980995	0.35
United Kingdom	81231193	564279206	-483048013	-0.40
United Rep. of Tanzania	88325605	50336234	37989371	0.17
Uruguay	18073	314777404	-314759331	-0.34
USA	69454424	1393861659	- 1324407235	-1.33
Uzbekistan	299707438	53746242	245961196	0.71
Venezuela	273743	326151	-52408	0.00
Viet Nam	14062152	419654806	-405592654	-0.42
Yemen	10522	0	10522	0.00
Zambia	0	15744775	-15744775	-0.02
Zimbabwe	7187459	32362539	-25175080	-0.02

Source: Comtrade database, 2016, own calculations

Appendix 2 –Russian agricultural trade with CIS in 2000, Trade Balance index, Lafay index, Share of each products category in total export

Code	Products label	Export	Import	TBI	LFI	Share in total exports
		2000	2000	2000	2000	2000
01	Live animals	487788	204694	0.41	0.1	0.23
02	Meat and edible meat offal	216155	2.08E+08	-1.00	-6.2	0.10
03	Fish, aquatic invertebrates	4404665	1733274	0.44	0.5	2.03
04	Dairy products, eggs, honey	19804628	73209855	-0.57	0.5	9.15
05	Products of animal origin	565130	892012	-0.22	0.1	0.26
06	Live trees, plants, bulbs, roots, cut flowers	29366	1672104	-0.97	0	0.01
07	Edible vegetables and certain roots and tubers	1352096	21482249	-0.88	-0.5	0.62
08	Edible fruit, nuts, peel of citrus fruit, melons	631568	80615270	-0.98	-2.3	0.29
9	Coffee, tea, mate and spices	3296894	1025316	0.53	0.4	1.52
10	Cereals	45768010	7712941	0.71	6	21.14
11	Milling products, malt, starches	3474980	4410090	-0.12	0.3	1.61
12	Oil seeds, oleagic fruits, grain	779704	9649386	-0.85	-0.2	0.36
13	Lac, gums, resins, vegetable saps and extracts	8175	664076	-0.98	0	0.00
14	Vegetable plaiting materials, vegetable products	10686	263854	-0.92	0	0.00
15	Animal, vegetable fats and oil, cleavage products	7573384	68823989	-0.80	-1	3.50
16	Meat, fish and seafood preparations	9720297	19856875	-0.34	0.7	4.49
17	Sugars and sugar confectionary	47136044	83605986	-0.28	3.9	21.77
18	Cocoa and cocoa preparations	28696643	58161253	-0.34	2.2	13.25
19	Cereal, flour, starch, milk preparations and products	13548988	20572072	-0.21	1.2	6.26
20	Vegetable, fruit, nut and other preparations	2369543	49312132	-0.91	-1.1	1.09
21	Miscellaneous edible preparations	3883019	7392669	-0.31	0.3	1.79
22	Beverages, spirits and vinegar	9206153	1.73E+08	-0.90	-3.9	4.25
23	Residues, wastes of food industry	4069984	3574663	0.06	0.4	1.88
24	Tobacco tobacco substitutes	9469413	91796251	-0.81	-1.4	4.37

Source: Comtrade database, 2016, own calculations

Appendix 3 –Russian agricultural trade with CIS in 2014, Trade Balance index, Lafay index, Share of each products category in total export

Code	Products label	Export	Import	TBI	LFI	Share in total exports
		2014	2014	2014	2014	2014
01	Live animals	7928225	1713603	0.64	0.2	0.43
02	Meat and edible meat offal	66803	81840443	-1.00	-2.8	0.00
03	Fish, aquatic invertebrates	9057818	279880	0.94	0.2	0.50
04	Dairy products, eggs, honey	46890343	1.23E+08	-0.45	-3	2.57
05	Products of animal origin	587089	1450069	-0.42	0	0.03
06	Live trees, plants, bulbs, roots	364140	1221447	-0.54	0	0.02
07	Edible vegetables and certain roots	10347576	1.93E+08	-0.90	-6.4	0.57
08	Edible fruit, nuts, peel of citrus fruit	1537452	1.98E+08	-0.98	-6.8	0.08
09	Coffee, tea, mate and spices	55516825	7759322	0.75	1.2	3.05
10	Cereals	3.12E+08	16156201	0.90	7.9	17.10
11	Milling products, malt, starches, inulin, wheat glute	50003072	12001452	0.61	0.9	2.74
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	7303640	69054307	-0.81	-2.2	0.40
13	Lac, gums, resins, vegetable saps and extracts	449353	145890	0.51	0	0.02
14	Vegetable plaiting materials, vegetable products	4485	135782	-0.94	0	0.00
15	Animal, vegetable fats and oil, cleavage products	2.91E+08	28540442	0.82	6.9	15.95
16	Meat, fish and seafood preparations	27013720	19210407	0.17	0.1	1.48
17	Sugars and sugar confectionary	45542760	52474419	-0.07	-0.6	2.50
18	Cocoa and cocoa preparations	1.61E+08	1.31E+08	0.10	-0.2	8.82
19	Cereal, flour, starch, milk preparations and products	1.44E+08	1.07E+08	0.15	0.2	7.89
20	Vegetable, fruit, nut and other preparations	45600399	99354763	-0.37	-2.2	2.50
21	Miscellaneous edible preparations	90776022	1.08E+08	-0.09	-1.3	4.98
22	Beverages, spirits and vinegar	86708612	1.51E+08	-0.27	-2.8	4.76
23	Residues, wastes of food industry, animal fodder	60722246	18070144	0.54	1	3.33
24	Tobacco and manufactured tobacco substitutes	3.7E+08	12688296	0.93	9.6	20.27

Source: Comtrade database, 2016, own calculations

Appendix 4 –Russian agricultural trade with EAEU in 2000, Trade Balance index, Lafay index, Share of each products category in total export

<i>Code</i>	Product label	Export	Import	TBI	LFI	Share in total export
		2000	2000	2000	2000	2000
<i>01</i>	Live animals	647126	29080	0.91	0.1	0.26
<i>02</i>	Meat and edible meat offal	2116664	618132	0.55	0.3	0.85
<i>03</i>	Fish, aquatic invertebrates	11164071	6693127	0.25	1.4	4.51
<i>04</i>	Dairy products, eggs, honey	31104807	3353330	0.98	5.8	12.56
<i>05</i>	Products of animal origin	134086	45876	0.49	0	0.05
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers	96897	274853	-0.48	0	0.04
<i>07</i>	Edible vegetables and certain roots and tubers	1878311	33665198	-0.89	-3.2	0.76
<i>08</i>	Edible fruit, nuts, peel of citrus fruit,	3609338	62636450	-0.89	-5.9	1.46
<i>09</i>	Coffee, tea, mate and spices	2866239	62893	0.96	0.5	1.16
<i>10</i>	Cereals	2063182	2.47E+08	-0.98	-25.6	0.83
<i>11</i>	Milling products, malt	4517975	15959597	-0.56	-0.8	1.82
<i>12</i>	Oil seeds, oleagic fruits, grain	7460470	1370519	0.69	1.2	3.01
<i>13</i>	Lac, gums, resins	55742	18453	0.50	0	0.02
<i>14</i>	Vegetable plaiting materials, vegetable products	3606	6840	-0.31	0	0.00
<i>15</i>	Animal, vegetable fats and oil, cleavage products	31107422	442526	0.97	5.7	12.56
<i>16</i>	Meat, fish and seafood preparations	17916530	567015	0.94	3.3	7.24
<i>17</i>	Sugars and sugar confectionary	35481494	869350	0.95	6.5	14.33
<i>18</i>	Cocoa and cocoa preparations	28306909	59435	1.00	5.3	11.43
<i>19</i>	Cereal, flour, starch, milk preparations and products	20911693	1225713	0.89	3.8	8.45
<i>20</i>	Vegetable, fruit, nut and other preparations	4411035	2878495	0.21	0.5	1.78
<i>21</i>	Miscellaneous edible preparations	19676146	66286	0.99	3.7	7.95
<i>22</i>	Beverages, spirits and vinegar	11849917	20704076	-0.27	0	4.79
<i>23</i>	Residues, wastes of food industry, animal fodder	1572730	1210698	0.13	0.2	0.64
<i>24</i>	Tobacco, tobacco substitutes	8629355	41603576	-0.66	-2.8	3.49

Source: Comtrade database, 2016, own calculations

Appendix 5 –Russian agricultural trade with EAEU in 2014, Trade Balance index, Lafay index, Share of each products category in total export

Code	Product label	Export	Import	TBI	LFI	Share in total export
		2014	2014	2014	2014	2014
01	Live animals	11597492	370823	0.94	0.2	0.38
02	Meat and edible meat offal	60088783	7.07E+08	-0.84	-7.1	1.95
03	Fish, aquatic invertebrates	98477756	1.46E+08	-0.20	-0.1	3.20
04	Dairy products, eggs, honey	2.27E+08	1.91E+09	-0.79	-18	7.37
05	Products of animal origin	1492536	2127139	-0.18	0	0.05
06	Live trees, plants, bulbs, roots, cut flowers	1297384	7191105	-0.69	-0.1	0.04
07	Edible vegetables and certain roots	9555006	1.67E+08	-0.89	-1.7	0.31
08	Edible fruit, nuts, peel of citrus fruit, melons	39961998	1.39E+08	-0.55	-0.9	1.30
09	Coffee, tea, mate and spices	61298345	8891282	0.75	0.9	1.99
10	Cereals	86398256	1.17E+08	-0.15	0	2.81
11	Milling products, malt, starches	47645727	41899413	0.06	0.3	1.55
12	Oil seeds, oleagic fruits, grain, seed, fruit	32061766	5324044	0.72	0.4	1.04
13	Lac, gums, resins, vegetable	4607014	1460154	0.52	0.1	0.15
14	Vegetable plaiting materials, vegetable products	55703	3463.699	0.88	0	0.00
15	Animal, vegetable fats and oil, cleavage products	2.95E+08	12057228	0.92	4.5	9.58
16	Meat, fish and seafood preparations	1.15E+08	3.35E+08	-0.49	-2	3.74
17	Sugars and sugar confectionary	1.07E+08	1.82E+08	-0.26	-0.4	3.48
18	Cocoa and cocoa preparations	3.77E+08	55303985	0.74	5.3	12.25
19	Cereal, flour, starch, milk preparations and products	3.95E+08	60873697	0.73	5.5	12.81
20	Vegetable, fruit, nut and other preparations	1.8E+08	47889469	0.58	2.3	5.83
21	Miscellaneous edible preparations	3.14E+08	34111773	0.80	4.6	10.20
22	Beverages, spirits and vinegar	1.94E+08	2.11E+08	-0.04	0.7	6.32
23	Residues, wastes of food industry, animal fodder	1.98E+08	88395199	0.38	2.1	6.43
24	Tobacco and manufactured tobacco substitutes	2.23E+08	12188265	0.90	3.4	7.23

Source: Comtrade database, 2016, own calculations

Appendix 6 –Russian agricultural trade with BRICS in 2000, Trade Balance index, Lafay index, Share of each products category in total export

<i>Code</i>	Product label	Export	Import	TBI	LFI	Share in total exports
		2000	2000	2000	2000	2000
<i>01</i>	Live animals	7777	23056	-0.50	0	0.01
<i>02</i>	Meat and edible meat offal	29368	25221165	-1.00	-0.4	0.04
<i>03</i>	Fish, aquatic invertebrates	45478817	540451	0.98	9.1	61.50
<i>04</i>	Dairy products, eggs, honey	1367681	29202	0.96	0.3	1.85
<i>05</i>	Products of animal origin	3740877	1187947	0.52	0.7	5.06
<i>06</i>	Live trees, plants, bulbs, roots	5	49752	-1.00	0	0.00
<i>07</i>	Edible vegetables and certain roots and tubers	131432	20471059	-0.99	-0.3	0.18
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	13033390	39037509	-0.50	1.9	17.63
<i>09</i>	Coffee, tea, mate and spices	4925	1.91E+08	-1.00	-3.3	0.01
<i>10</i>	Cereals		52207547	-1.00	-0.9	0.00
<i>11</i>	Milling products, malt, starches	8632	1654463	-0.99	0	0.01
<i>12</i>	Oil seeds, oleagic fruits, grain, seed	8796920	17296511	-0.33	1.5	11.90
<i>13</i>	Lac, gums, resins, vegetable saps		436979	-1.00	0	0.00
<i>14</i>	Vegetable plaiting materials, vegetable products		4718	-1.00	0	0.00
<i>15</i>	Animal, vegetable fats and oil, cleavage products	43165	3188670	-0.97	0	0.06
<i>16</i>	Meat, fish and seafood preparations	33130	2485955	-0.97	0	0.04
<i>17</i>	Sugars and sugar confectionary	708	2.81E+08	-1.00	-4.9	0.00
<i>18</i>	Cocoa and cocoa preparations	31358	2249796	-0.97	0	0.04
<i>19</i>	Cereal, flour, starch, milk preparations	1163	486427	-1.00	0	0.00
<i>20</i>	Vegetable, fruit, nut and other preparations	11186	7517437	-1.00	-0.1	0.02
<i>21</i>	Miscellaneous edible preparations	26703	70791589	-1.00	-1.2	0.04
<i>22</i>	Beverages, spirits and vinegar	125138	1255237	-0.82	0	0.17
<i>23</i>	Residues, wastes of food industry, animal fodder	1072375	847567	0.12	0.2	1.45
<i>24</i>	Tobacco, tobacco substitutes	159	1.3E+08	-1.00	-2.3	0.00

Source: Comtrade database, 2016, own calculations

Appendix 7 –Russian agricultural trade with BRICS in 2014, Trade Balance index, Lafay index, Share of each products category in total export

Code	Product label	Export	Import	TBI	LFI	Share in total exports
		2014	2014	2014	2014	2014
01	Live animals	7489312	79662	0.98	0.2	0.55
02	Meat and edible meat offal	893	2448151030	-1.00	-11.8	0.00
03	Fish, aquatic invertebrates	9.15E+08	380522109	0.41	18.1	67.26
04	Dairy products, eggs	1557270	1932139	-0.11	0	0.11
05	Products of animal origin	11994133	6627353	0.29	0.2	0.88
06	Live trees, plants, bulbs		2193291	-1.00	0	0.00
07	Edible vegetables, certain roots	15129117	505095006	-0.94	-2.1	1.11
08	Edible fruit, nuts	14972254	584536086	-0.95	-2.5	1.10
09	Coffee, tea, mate and spices	788412	327172399	-1.00	-1.6	0.06
10	Cereals	2.06E+08	54128528	0.58	4.2	15.11
11	Milling products, malt, starches,	4131846	1822290	0.39	0.1	0.30
12	Oil seeds, oleagic fruits, grain	30470640	416624281	-0.86	-1.3	2.24
13	Lac, gums, resins, vegetable saps	44461	67433484	-1.00	-0.3	0.00
14	Vegetable plaiting materials, vegetable products		977466	-1.00	0	0.00
15	Animal, vegetable fats and oil	59949764	12981697	0.64	1.2	4.41
16	Meat, fish and seafood prep.	444315	88757051	-0.99	-0.4	0.03
17	Sugars and sugar confectionary	479431	267385464	-1.00	-1.3	0.04
18	Cocoa and cocoa preparations	6869563	16875416	-0.42	0.1	0.51
19	Cereal, flour, starch, milk preparations and products	734218	17162124	-0.92	-0.1	0.05
20	Vegetable, fruit, nut and other preparations	335676	110339642	-0.99	-0.5	0.02
21	Miscellaneous edible prep.	4061994	206714005	-0.96	-0.9	0.30
22	Beverages, spirits and vinegar	7885279	38478464	-0.66	0	0.58
23	Residues, wastes of food industry, animal fodder	53226356	150625389	-0.48	0.4	3.91
24	Tobacco, tobacco substitutes	19119963	441245057	-0.92	-1.7	1.41

Source: Comtrade database, 2016, own calculations

Appendix 8 –Russian agricultural trade with OECD in 2000, Trade Balance index, Lafay index, Share of each products category in total export

Code	Product label	Export	Import	TBI	LFI	Share in total exports
		2000	2000	2000	2000	2000
01	Live animals	141971	209088	-0.19	-0.2	0.10
02	Meat and edible meat offal		2957519	-1.00	-3.3	0.00
03	Fish, aquatic invertebrates	1.23E+08	448233	0.99	17.6	87.91
04	Dairy products, eggs, honey	3175969	5089525	-0.23	-5.2	2.27
05	Products of animal origin	1900		1.00	0	0.00
06	Live trees, plants, bulbs, roots, cut flowers		894	-1.00	0	0.00
07	Edible vegetables and certain roots and tubers	1889338	133178	0.87	0.1	1.35
08	Edible fruit, nuts, peel of citrus fruit, melons	843	4791757	-1.00	-5.4	0.00
09	Coffee, tea, mate and spices	286	39801	-0.99	0	0.00
10	Cereals		121760	-1.00	-0.1	0.00
11	Milling products, malt, starches	1273	113688	-0.98	-0.1	0.00
12	Oil seeds, oleagic fruits, grain	289731	129622	0.38	-0.1	0.21
13	Lac, gums, resins, vegetable		799770	-1.00	-0.9	0.00
14	Vegetable plaiting materials		37	-1.00	0	0.00
15	Animal, vegetable fats and oil, cleavage products	28938	393609	-0.86	-0.4	0.02
16	Meat, fish and seafood preparations	8596258	294374	0.93	0.9	6.15
17	Sugars and sugar confectionary	4206	36549	-0.79	0	0.00
18	Cocoa and cocoa preparations	4003	38955	-0.81	0	0.00
19	Cereal, flour, starch, milk prep.	1290	72244	-0.96	-0.1	0.00
20	Vegetable, fruit, nut and other prep.		105389	-1.00	-0.1	0.00
21	Miscellaneous edible preparations	36285	1210933	-0.94	-1.3	0.03
22	Beverages, spirits and vinegar	2589862	1263926	0.34	-1	1.85
23	Residues, wastes of food industry, animal fodder	128581	78317	0.24	-0.1	0.09
24	Tobacco, tobacco substitutes	1321	37243	-0.93	0	0.00

Source: Comtrade database, 2016, own calculations

Appendix 9 –Russian agricultural trade with OECD in 2014, Trade Balance index, Lafay index, Share of each products category in total export

Code	Product label	Export	Import	TBI	LFI	Share in total exports
		2014	2014	2014	2014	2014
01	Live animals	30000	40677877	-1.00	-1.3	0.01
02	Meat and edible meat offal		1.52E+08	-1.00	-5	0.00
03	Fish, crustaceans, molluscs, aquatic invertebrates	2.11E+08	4.2E+08	-0.33	13.1	82.67
04	Dairy products, eggs, honey, edible animal products	82178	77127150	-1.00	-2.5	0.03
05	Products of animal origin	1006229	7502	0.99	0.1	0.39
06	Live trees, plants, bulbs, roots, cut flowers		118917	-1.00	0	0.00
07	Edible vegetables and certain roots and tubers	1012234	1184940	-0.08	0.1	0.40
08	Edible fruit, nuts, peel of citrus fruit, melons	3969	1.23E+08	-1.00	-4.1	0.00
09	Coffee, tea, mate and spices	1262967	1219821	0.02	0.1	0.49
10	Cereals	13379052	3642617	0.57	1.6	5.24
11	Milling products, malt, starches, inulin, wheat glute	165598	155342	0.03	0	0.06
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	260565	17678826	-0.97	-0.5	0.10
13	Lac, gums, resins, vegetable saps and extracts		2996829	-1.00	-0.1	0.00
14	Vegetable plaiting materials, vegetable products		5512	-1.00	0	0.00
15	Animal, vegetable fats and oil, cleavage products	3131921	3303778	-0.03	0.3	1.23
16	Meat, fish and seafood preparations	1295010	16277440	-0.85	-0.4	0.51
17	Sugars and sugar confectionary	191224	531815	-0.47	0	0.07
18	Cocoa and cocoa preparations	122665	795487	-0.73	0	0.05
19	Cereal, flour, starch, milk preparations and products	21373	1368312	-0.97	0	0.01
20	Vegetable, fruit, nut and other preparations		40226683	-1.00	-1.3	0.00
21	Miscellaneous edible preparations	779427	15502952	-0.90	-0.4	0.31
22	Beverages, spirits and vinegar	3081783	67870678	-0.91	-1.8	1.21
23	Residues, wastes of food industry, animal fodder	361705	3868287	-0.83	-0.1	0.14
24	Tobacco, tobacco substitutes	18042780	162136	0.98	2.3	7.07

Source: Comtrade database, 2016, own calculations

Appendix 10 –Russian agricultural trade with the rest of the world in 2000, Trade Balance index, Lafay index, Share of each products category in total export

Code	Product label	Export	Import	TBI	LFI	Share in total exports
		2000	2000	2000	2000	2000
01	Live animals	1613076	1.48E+09	-1.00	0	0.08
02	Meat and edible meat offal	1.39E+08	6.07E+08	-0.63	-2.7	7.22
03	Fish, aquatic invertebrates	39954177	7.53E+08	-0.90	3.4	2.08
04	Dairy products, eggs, honey	5489729	23403476	-0.62	0.4	0.29
05	Products of animal origin	250210	1.85E+08	-1.00	0.1	0.01
06	Live trees, plants, bulbs, roots, cut flowers	13677224	3.88E+08	-0.93	-0.1	0.71
07	Edible vegetables and certain roots and tubers	19750058	1.44E+09	-0.97	-0.4	1.03
08	Edible fruit, nuts, peel of citrus fruit, melons	1076129	2.76E+08	-0.99	-1.1	0.06
09	Coffee, tea, mate and spices	48595678	4.35E+08	-0.80	-0.2	2.53
10	Cereals	33330198	2.06E+08	-0.72	-0.1	1.73
11	Milling products, malt, starches, inulin, wheat glute	1.8E+08	1.24E+08	0.18	0.5	9.35
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	690047	37232568	-0.96	4.6	0.04
13	Lac, gums, resins, vegetable saps and extracts	52584	3945289	-0.97	0	0.00
14	Vegetable plaiting materials, vegetable products	47230295	5.35E+08	-0.84	0	2.46
15	Animal, vegetable fats and oil, cleavage products	30880579	1.18E+08	-0.59	0.2	1.61
16	Meat, fish and seafood preparations	-1.9E+07	3.89E+08	-1.10	0.6	-0.99
17	Sugars and sugar confectionary	-6129422	4.97E+08	-1.02	-2.2	-0.32
18	Cocoa and cocoa preparations	3596831	2.08E+08	-0.97	-0.7	0.19
19	Cereal, flour, starch, milk preparations and products	2985860	4.84E+08	-0.99	-0.1	0.16
20	Vegetable, fruit, nut and other preparations	21193534	5.46E+08	-0.93	-0.6	1.10
21	Miscellaneous edible preparations	37528508	1.11E+09	-0.93	0	1.95
22	Beverages, spirits and vinegar	18366373	3.64E+08	-0.90	-0.1	0.96
23	Residues, wastes of food industry, animal fodder	1375365	5.65E+08	-1.00	0.1	0.07
24	Tobacco, tobacco substitutes	1.3E+09	0	1.00	-1.6	67.70

Source: Comtrade database, 2016, own calculations

Appendix 11 –Russian agricultural trade with the rest of the world in 2014, Trade Balance index, Lafay index, Share of each products category in total export

<i>Code</i>	Product label	Export	Import	TBI	LFI	Share in total exports
		2014	2014	2014	2014	2014
<i>01</i>	Live animals	1879767	2.19E+08	-0.98	-0.3	0.02
<i>02</i>	Meat and edible meat offal	44613626	2.93E+09	-0.97	-3.4	0.36
<i>03</i>	Fish, aquatic invertebrates	1.63E+09	1.77E+09	-0.04	3.1	13.12
<i>04</i>	Dairy products, eggs, honey	41082482	3.75E+09	-0.98	-4.4	0.33
<i>05</i>	Products of animal origin	56873545	66620870	-0.08	0.1	0.46
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers	433195	8.48E+08	-1.00	-1	0.00
<i>07</i>	Edible vegetables and certain roots and tubers	2.1E+08	2.45E+09	-0.84	-2.3	1.69
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	30729473	4.77E+09	-0.99	-5.7	0.25
<i>09</i>	Coffee, tea, mate and spices	25609547	9.72E+08	-0.95	-1.1	0.21
<i>10</i>	Cereals	6.47E+09	4.66E+08	0.87	20.2	51.91
<i>11</i>	Milling products, malt, starches, inulin, wheat glute	80807784	1.77E+08	-0.37	0	0.65
<i>12</i>	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	3E+08	1.42E+09	-0.65	-0.8	2.41
<i>13</i>	Lac, gums, resins, vegetable saps and extracts	1890082	90827275	-0.96	-0.1	0.02
<i>14</i>	Vegetable plaiting materials, vegetable products	11942526	2382192	0.67	0	0.10
<i>15</i>	Animal, vegetable fats and oil, cleavage products	1.62E+09	1.23E+09	0.14	3.7	12.98
<i>16</i>	Meat, fish and seafood preparations	33545099	5.91E+08	-0.89	-0.6	0.27
<i>17</i>	Sugars and sugar confectionary	1.08E+08	5.44E+08	-0.67	-0.3	0.86
<i>18</i>	Cocoa and cocoa preparations	1.08E+08	1.35E+09	-0.85	-1.3	0.86
<i>19</i>	Cereal, flour, starch, milk preparations and products	84063622	1.27E+09	-0.88	-1.3	0.67
<i>20</i>	Vegetable, fruit, nut and other preparations	42250546	1.45E+09	-0.94	-1.6	0.34
<i>21</i>	Miscellaneous edible preparations	1.97E+08	1.54E+09	-0.77	-1.3	1.58
<i>22</i>	Beverages, spirits and vinegar	2.6E+08	2.96E+09	-0.84	-2.8	2.09
<i>23</i>	Residues, wastes of food industry, animal fodder	9.17E+08	1.13E+09	-0.10	1.6	7.36
<i>24</i>	Tobacco, tobacco substitutes	1.87E+08	7.73E+08	-0.61	-0.3	1.50

Source: Comtrade database, 2016, own calculations

Appendix 12 –Russian agricultural trade with the whole world in 2000, Trade Balance index, Lafay index, Share of each products category in total export

<i>Code</i>	Product label	Export	Import	TBI	LFI	Share in total exports
		2000	2000	2000	2000	2000
<i>01</i>	Live animals	4018075	10773719	-0.46	0.0	0.31
<i>02</i>	Meat and edible meat offal	3975263	101513380 2	-0.99	-3.8	0.31
<i>03</i>	Fish, aquatic invertebrates	32263344 6	128991294	0.43	6.1	24.79
<i>04</i>	Dairy products, eggs, honey	95407262	245250814	-0.44	1.0	7.33
<i>05</i>	Products of animal origin	9931722	20535914	-0.35	0.1	0.76
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers	376478	42075856	-0.98	-0.2	0.03
<i>07</i>	Edible vegetables and certain roots and tubers	18928401	312694884	-0.89	-0.8	1.45
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	37025197	645296997	-0.89	-1.7	2.84
<i>09</i>	Coffee, tea, mate and spices	7244473	274323268	-0.95	-0.9	0.56
<i>10</i>	Cereals	96426870	551500168	-0.70	-0.1	7.41
<i>11</i>	Milling products, malt, starches, inulin, wheat glute	41333058	164623789	-0.60	0.2	3.18
<i>12</i>	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	19709193 3	93798608	0.36	3.7	15.14
<i>13</i>	Lac, gums, resins, vegetable saps and extracts	753964	23549344	-0.94	-0.1	0.06
<i>14</i>	Vegetable plaiting materials, vegetable products	66876	3759144	-0.97	0.0	0.01
<i>15</i>	Animal, vegetable fats and oil, cleavage products	85983204	394066483	-0.64	0.3	6.61
<i>16</i>	Meat, fish and seafood preparations	67146794	91088951	-0.15	1.0	5.16
<i>17</i>	Sugars and sugar confectionary	63601077	895369552	-0.87	-2.1	4.89
<i>18</i>	Cocoa and cocoa preparations	50909491	197452632	-0.59	0.3	3.91
<i>19</i>	Cereal, flour, starch, milk preparations and products	38059965	85963773	-0.39	0.4	2.92
<i>20</i>	Vegetable, fruit, nut and other preparations	9777624	238545060	-0.92	-0.7	0.75
<i>21</i>	Miscellaneous edible preparations	44815687	270327802	-0.72	-0.1	3.44
<i>22</i>	Beverages, spirits and vinegar	61299578	406399835	-0.74	-0.3	4.71
<i>23</i>	Residues, wastes of food industry, animal fodder	25210043	146247246	-0.71	0.0	1.94
<i>24</i>	Tobacco, tobacco substitutes	19475613	724011108	-0.95	-2.4	1.50

Source: Comtrade database, 2016, own calculations

Appendix 13 –Russian agricultural trade with the whole world in 2014, Trade Balance index, Lafay index, Share of each products category in total export

<i>Code</i>	Product label	Export	Import	TBI	LFI	Share in total exports
		2014	2014	2014	2014	2014
<i>01</i>	Live animals	28924796	259306295	-0.80	-0.2	0.15
<i>02</i>	Meat and edible meat offal	104770105	5527832689	-0.96	-5.8	0.55
<i>03</i>	Fish, aquatic invertebrates	2868303117	2566070020	0.06	3.8	15.11
<i>04</i>	Dairy products, eggs, honey	316642679	3824191149	-0.85	-3.5	1.67
<i>05</i>	Products of animal origin	71953532	73255725	-0.01	0.1	0.38
<i>06</i>	Live trees, plants, bulbs, roots, cut flowers	2094719	850405357	-1.00	-0.9	0.01
<i>07</i>	Edible vegetables and certain roots and tubers	246279795	2959077603	-0.85	-2.7	1.30
<i>08</i>	Edible fruit, nuts, peel of citrus fruit, melons	87205146	5479577428	-0.97	-5.8	0.46
<i>09</i>	Coffee, tea, mate and spices	144476096	1300100450	-0.80	-1.1	0.76
<i>10</i>	Cereals	7086716335	524131426	0.86	15.7	37.34
<i>11</i>	Milling products, malt, starches, inulin, wheat glute	182754027	179262189	0.01	0.2	0.96
<i>12</i>	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	369835686	1859201008	-0.67	-1.2	1.95
<i>13</i>	Lac, gums, resins, vegetable saps and extracts	6990910	161257588	-0.92	-0.2	0.04
<i>14</i>	Vegetable plaiting materials, vegetable products	12002714	3365170	0.56	0.0	0.06
<i>15</i>	Animal, vegetable fats and oil, cleavage products	2266294523	1241624503	0.29	3.9	11.94
<i>16</i>	Meat, fish and seafood preparations	177445123	695793245	-0.59	-0.4	0.93
<i>17</i>	Sugars and sugar confectionary	260862725	811503567	-0.51	-0.3	1.37
<i>18</i>	Cocoa and cocoa preparations	652654449	1368553242	-0.35	0.0	3.44
<i>19</i>	Cereal, flour, starch, milk preparations and products	623218143	1283616987	-0.35	0.0	3.28
<i>20</i>	Vegetable, fruit, nut and other preparations	267699250	1605048417	-0.71	-1.1	1.41
<i>21</i>	Miscellaneous edible preparations	606375080	1765127991	-0.49	-0.5	3.19
<i>22</i>	Beverages, spirits and vinegar	552170480	3068432104	-0.69	-2.1	2.91
<i>23</i>	Residues, wastes of food industry, animal fodder	1229024577	1284221158	-0.02	1.4	6.48
<i>24</i>	Tobacco, tobacco substitutes	816301741	1214035387	-0.20	0.5	4.30

Source: Comtrade database, 2016, own calculations

Appendix 14 – Product structure of Russian agricultural and food imports from CIS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	204694	138028	846178	254175	7046	3546916	3356630	2017117	1658567	1713603
02	Meat and edible meat offal	208425396	199146174	185770975	6196196	63031316	55749137	147143563	249749769	179333468	81840443
03	Fish, aquatic invertebrates	1733274	2784593	2483834	368388	1639258	1944541	849360	527157	192873	279880
04	Dairy products, eggs	73209855	82660343	302634441	140861146	378312637	402203583	445737762	354414477	389702268	123326331
05	Products of animal origin	892012	514962	717251	39318	94903	1305594	951734	1744848	1875577	1450069
06	Live trees, plants, bulbs	1672104	1020722	802036	711859	2059538	437391	1473218	1075784	1552186	1221447
07	Edible vegetables and certain roots	21482249	10101764	28496372	59006190	135670019	191101350	198389562	184837491	179270370	193339148
08	Edible fruit, nuts, peel	80615270	42055837	116974133	147792453	311774984	432813122	306100367	358680260	300555852	197912995
09	Coffee, tea	1025316	639340	399804	2760184	5014086	10107354	11972316	17189953	17341972	7759322
10	Cereals	7712941	10933150	64853112	31870664	98114286	7070129	31335971	9693052	18661819	16156201
11	Milling products, malt	4410090	3510389	5704039	10177575	32679868	22071775	23405856	21466763	27290405	12001452
12	Oil seeds, oleaginous fruits, grain, seed, fruit, etc.	9649386	3302989	8637547	9618284	30064745	45908858	29004650	30527031	83487818	69054307
13	Lac, gums, resins, vegetable saps and extracts	664076	129335	118787	128637	286375	309949	154326	288110	153888	145890
14	Vegetable plaiting materials, vegetable products	263854	746205	2121545	1443081	208931	94929	33764	286968	255944	135782
15	Animal, vegetable fats and oil, cleavage products	68823989	80560109	93931770	98576740	393449366	280133171	224076240	63663715	57360472	28540442
16	Meat, fish and seafood preparations	19856875	12154976	27083908	11438489	25496411	32669406	35973823	54144832	45135637	19210407
17	Sugars and sugar confectionery	83605986	43824413	27886265	32597238	30797024	102370346	98761956	84475486	71724897	52474419
18	Cocoa and cocoa preparations	58161253	89271924	128439125	145813848	303992193	363284098	433992169	456126960	354693826	131082053
19	Cereal, flour, starch, milk preparations and products	20572072	14309026	35908248	38888851	74597761	81588712	113304509	140255501	149568744	107292645

Appendix 14 – Product structure of Russian agricultural and food imports from CIS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	49312132	45597763	82329581	95220813	146306074	164559659	174841440	202012346	207408867	99354763
21	Miscellaneous edible preparations	7392669	8387787	26240924	14175812	23624888	26588923	40525050	65700856	113278142	108197508
22	Beverages, spirits and vinegar	172988330	212433774	433652327	351232262	408647152	374907759	66886238	374846544	318958264	150808921
23	Residues, wastes of food industry, animal fodder	3574663	10193827	5738582	2759347	3978346	3542428	12835564	12832458	13068572	18070144
24	Tobacco and manufactured tobacco substitutes	91796251	42912172	24118736	22695971	11158385	18128235	14836649	11009001	14307418	12688296

Source: Comtrade database, 2016

Appendix 15 – Product structure of Russian agricultural and food exports to CIS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	487788	104224	256724	252282	474672	953062	1542314	2186784	3743365	7928225
02	Meat and edible meat offal	216155	223291	151010	1470	333555	392590	298049	721	139	66803
03	Fish, aquatic invertebrates	4404665	4425156	4008746	11969305	10737383	8756126	16361338	20357366	16053497	9057818
04	Dairy products, eggs	19804628	18188261	28621662	63538912	101812189	70872084	77181581	72590026	65099302	46890343
05	Products of animal origin	565130	565130	366472	1009825	1488480	333542	595945	531634	664586	587089
06	Live trees, plants, bulbs	29366	24205	123277	89167	188920	183591	338304	339355	505721	364140
07	Edible vegetables and certain roots	1352096	1352431	2844805	4500181	7841717	9281516	10119215	10365519	12092087	10347576
08	Edible fruit, nuts, peel	631568	522684	1436395	1268514	2159903	905861	785714	1148433	2304596	1537452
09	Coffee, te	3296894	3425024	21989717	45553377	78685365	61858454	71558112	74007831	79917176	55516825
10	Cereals	45768010	45395635	84961931	101667789	228210024	57248381	125028221	152694030	218111241	311659533
11	Milling products, malt	3474980	3578377	12151471	25925970	90884620	22361562	107560550	42605831	40774415	50003072
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	779704	505316	761510	993730	3955473	1217310	4223131	4861774	6749143	7303640
13	Lac, gums, resins, vegetable saps and extracts	8175	21076	25817	0	22332	108463	115958	356304	195797	449353
14	Vegetable plaiting materials, vegetable products	10686		2430	0	0	8932	17320	26010	41046	4485
15	Animal, vegetable fats and oil, cleavage products	7573384	5494264	9627680	20444247	61525157	73585955	96959774	270438625	272712474	290818024
16	Meat, fish and seafood preparations	9720297	9729793	24482121	50905732	75285132	51529276	54697437	57154673	51508394	27013720
17	Sugars and sugar confectionary	47136044	29895648	32633141	46692872	62625570	57487098	103861718	75287843	76663889	45542760
18	Cocoa and cocoa preparations	28696643	25812185	60286532	87102634	143720043	143300939	179727234	170312652	205194497	160819940
19	Cereal, flour, starch, milk preparations and products	13548988	12961145	46547853	63356289	127818812	109683066	130230183	132241391	153441870	143781156

Appendix 15– Product structure of Russian agricultural and food exports to CIS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	2369543	4882384	11275495	36102255	40109476	17901955	19941792	33214883	56967764	45600399
21	Miscellaneous edible preparations	3883019	16279813	50056646	84756424	153974033	135352607	159520377	175904274	211547372	90776022
22	Beverages, spirits and vinegar	9206153	17292760	17469575	76805550	71237950	71239459	93311661	98469809	112047583	86708612
23	Residues, wastes of food industry, animal fodder	4069984	8742146	16964857	27766051	32317076	34065446	57886707	47588319	54691091	60722246
24	Tobacco and manufactured tobacco substitutes	9469413	51009054	62067371	121925494	147605975	251802158	293062662	347781469	311867936	369561770

Source: Comtrade database, 2016

Appendix 16– Product structure of Russian agricultural and food imports from EAEU,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	29080	8187	11648	19335	645271	3641	182928	15423593	8880117	370823
02	Meat and edible meat offal	618132	1130254	344365	317082	1236042	-	-	3.17E+08	5.31E+08	7.07E+08
03	Fish, aquatic invertebrates	6693127	12907737	13867541	21861089	29679975	4345602	12083922	43850277	99523362	1.46E+08
04	Dairy products, eggs	335330	1125014	2667561	6214170	6486432	5576354	-	1.08E+09	1.69E+09	1.91E+09
05	Products of animal origin	45876	5250	47403	19390	63572	-	346290	1502984	2189828	2127139
06	Live trees, plants, bulbs	274853	108700	152908	167673	202222	521415	109190	3185223	7700246	7191105
07	Edible vegetables and certain roots	33665198	17699843	66232660	1.15E+08	1.81E+08	51580915	27720099	43954353	1.07E+08	1.67E+08
08	Edible fruit, nuts, peel	62636450	8997725	57003175	1.06E+08	3.15E+08	1.03E+08	11441740	50919350	99054162	1.39E+08
09	Coffee, te	62893	167061	1061664	1106947	1763199	2290449	2292131	46800142	20666125	8891282
10	Cereals	2.47E+08	21807132	2.39E+08	1.65E+08	86344662	8575		89028758	2.42E+08	1.17E+08
11	Milling products, malt	15959597	1950021	13231509	3063102	3356901	16129	38938	19228599	42394274	41899413
12	Oil seeds, oleag fruits, grain, seed, fruit, etc.	1370519	972442	1225997	943014	5996186	799026	883354	28417591	6975769	5324044
13	Lac, gums, resins, vegetable saps and extracts	18453	24509	136135	15198	39194	69974	71569	452435	1272260	1460154
14	Vegetable plaiting materials, vegetable products	6840	114954	148976	22924	0	-	-	292346	264785	3463.699
15	Animal, vegetable fats and oil, cleavage products	442526	263920	665107	46224	81531	-	9837	11728266	10705326	12057228
16	Meat, fish and seafood preparations	567015	239373	50801153	312852	95875	118430	428537	1.53E+08	2.52E+08	3.35E+08
17	Sugars and sugar confectionary	869350	1228198	21782357	14892666	12256044	-	15521	19882981	34521547	1.82E+08
18	Cocoa and cocoa preparations	59435	18347	34497	3121	95670	2917	6168	26253482	29703203	55303985
19	Cereal, flour, starch, milk preparations and products	1225713	4176691	5485712	4801956	8656844	9293	72901	44758594	43182899	60873697

Appendix 16– Product structure of Russian agricultural and food imports from EAEU,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	2878495	1770222	3145475	4254737	6066585	5859791	9373991	21182916	31267070	47889469
21	Miscellaneous edible preparations	66286	122371	277048	600466	907946	926371	1227625	14490124	23153428	34111773
22	Beverages, spirits and vinegar	20704076	40278006	51345347	62648025	1.26E+08	92196337	1.12E+08	1.76E+08	2.24E+08	2.11E+08
23	Residues, wastes of food industry, animal fodder	1210698	4799131	4379570	4379570	3852351	0	0	21491131	59843425	88395199
24	Tobacco and manufactured tobacco substitutes	41603576	7837267	14818287	15163311	9493673	15235050	13460666	11471292	14270298	12188265

Source: Comtrade database, 2016

Appendix 17 – Product structure of Russian agricultural and food exports to EAEU, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	647126	606384	558936	66000	3361424	-	-	5972593	5059627	11597492
02	Meat and edible meat offal	2116664	622884	143681	124494	2467119	-	-	22937632	59718071	60088783
03	Fish, aquatic invertebrates	11164071	6695306	7498776	15422581	18055899	3164837	5504553	45980390	79388007	98477756
04	Dairy products, eggs	31104806.8	25680822	55913322	98410678	170956994	11007876	13945144	184819068	217171498	227030406
05	Products of animal origin	134086	4987	7171	73513	211038	158	35743	2148864	2135301	1492536
06	Live trees, plants, bulbs	96897	63094	169281	310430	532201	110416	4162	446068	1568838	1297384
07	Edible vegetables and certain roots	1878311	1469536	927592	4165618	8023662	869774	987118	6779171	9602025	9555006
08	Edible fruit, nuts, peel	3609338	5327839	10975783	8522221	33965506	204138	417662	40399443	41419302	39961998
09	Coffee, tea	2866239	1819713	2135612	6137681	13732733	2683168	2737765	45104517	58920596	61298345
10	Cereals	2063182	2851600	71278	38930763	88759815	49959545	66591674	113586220	87794847	86398256
11	Milling products, malt	4517975	2726399	1633744	9905020	22564481	5392745	22244823	29578439	36565637	47645727
12	Oil seeds, oleaginous fruits, grain, seed, fruit, etc.	7460470	2870648	2670869	12618033	21398360	786728	943103	32894828	26723467	32061766
13	Lac, gums, resins, vegetable saps and extracts	55742	61977	4903318	226886	316325	128240	234388	2156490	3517753	4607014
14	Vegetable plating materials, vegetable products	3606	468	59517	-	-	-	113	3912	14781	55703
15	Animal, vegetable fats and oil, cleavage products	31107422	22275391	460	63215443	208025307	40475499	50362949	284005493	279812795	295139718
16	Meat, fish and seafood preparations	17916530	9706811	27362912	42262209	95843061	4131866	3003688	95887532	120201840	115146979
17	Sugars and sugar confectionary	35481494	14209427	18192290	43332635	29657271	4182303	15602721	108486794	105356311	107109786
18	Cocoa and cocoa preparations	28306909	31620602	22848999	85658601	132928068	40458582	53666814	285476104	347743751	377209796
19	Cereal, flour, starch, milk preparations and products	20911693	21309940	52896130	108011037	177678470	17220853	21190691	219277035	330194529	394617774

Appendix 17– Product structure of Russian agricultural and food exports to EAEU, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	4411035	4888300	4343298	27394226	44485065	2824031	4489830	103879587	142680934	179512629
21	Miscellaneous edible preparations	19676146	18500272	62282620	121316926	209653139	12196586	19049672	325940509	288662973	314199186
22	Beverages, spirits and vinegar	11849917	20200382	56658477	105854052	194978402	40720177	41663565	213458322	211648235	194484229
23	Residues, wastes of food industry, animal fodder	1572730	5118404	7462572	14022376	55128890	3702226	2450169	68152023	99516635	197917725
24	Tobacco and manufactured tobacco substitutes	8629355	10190097	14714451	40535192	93734766.4	28709869	24099401	187923441	208876271	222693147

Source: Comtrade database, 2016

Appendix 18 – Product structure of Russian agricultural and food imports from BRICS,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	23056	22566	1030	111750	39328	243849	449887	135157	113587	79662
02	Meat and edible meat offal	25221165	753690332	753744783	1367181979	2349909631	1961409841	1531853170	1678379328	1958238445	2448151030
03	Fish, aquatic invertebrates	540451	9034787	20969480	92027667	232979624	212297020	275216594	258331808	303698615	380522109
04	Dairy products, eggs	29202	787218	79142	20846	143712	750649	1452889	600889	515482	1932139
05	Products of animal origin	1187947	2592346	5558761	7317415	10951928	54785102	56932579	42875934	22245938	6627353
06	Live trees, plants, bulbs	49752	342891	853485	3089098	4497485	2967704	3742118	3413419	3081785	2193291
07	Edible vegetables and certain roots	20471059	43354713	77747527	155202995	6090972	282262583	439667567	355786429	405439015	505095006
08	Edible fruit, nuts, peel	39037509	44531591	88470835	186457516	738277465	489564405	499196318	551638944	617663364	584536086
09	Coffee, tea	190594794	94668775	84469745	111994468	197191523	149284395	342467562	321885831	299992846	327172399
10	Cereals	52207547	38171929	25949578	60631695	19241958	142418927	12372886	34929481	19270263	54128528
11	Milling products, malt	1654463	963350	5946876	6452567	14595361	5156709	46172211	10835196	3562753	1822290
12	Oil seeds, oleaginous fruits, grain	17296511	35489743	44272795	43382117	291780059	251187537	251206814	184495727	67947331	416624281
13	Lac, gums, resins, vegetable saps and extracts	436979	1130221	3997408	6843483	18522457	34618006	46433284	55733099	57829544	67433484
14	Vegetable plaiting materials, vegetable products	4718	52672	95101	117272	267472	643464	577043	957019	724795	977466
15	Animal, vegetable fats and oil, cleavage products	3188670	18700548	9768439	3322988	39824003	8559034	10582482	13310851	11593302	12981697
16	Meat, fish and seafood preparations	2485955	12145554	22533158	52436028	92853370	73783445	77452930	75382513	78854254	88757051
17	Sugars and sugar confectionary	280701468	387294389	338106522	961477746	822051457	1053045315	1583922890	290919888	252776637	267385464
18	Cocoa and cocoa preparations	2249796	2752759	4338330	918421	2641991	3536734	3319805	4573211	2977922	16875416
19	Cereal, flour, starch,	486427	2122722	6144099	5416497	16534432	12582821	11251559	11474886	15691433	17162124

Appendix 18 – Product structure of Russian agricultural and food imports from BRICS,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	7517437	68891325	104906292	247198175	407759925	365008588	444584319	425443039	403108009	110339642
21	Miscellaneous edible preparations	70791589	88242951	91313433	97718228	141965183	182669263	236255526	218767222	195284869	206714005
22	Beverages, spirits and vinegar	1255237	1873925	4417679	8759249	31536740	24172551	19276394	44908767	61326178	38478464
23	Residues, wastes of food industry, animal fodder	847567	7276100	7953797	22340309	104814314	39167714	62934217	115695633	206410876	150625389
24	Tobacco and manufactured tobacco substitutes	129627736	186723758	188684007	268013180	406139763	461647872	537786396	544695079	487519085	441245057

Source: Comtrade database, 2016

Appendix 19 – Product structure of Russian agricultural and food exports to BRICS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	7777	188500	280500	300000	334527	1746314	2660432	1307988	4211952	7489312
02	Meat and edible meat offal	29368	-	1920	-	60290	44546	262506	-	-	893
03	Fish, aquatic invertebrates	45478817	65606772	70943631	190269190	125310174	892176191	940802935	933291698	1014524587	914734377
04	Dairy products, eggs	1367681	132	15292	385165	7188	-	18976	5005	432317	1557270
05	Products of animal origin	3740877	801307	1664642	1187582	3872085	2720159	5443011	5313234	14044645	11994133
06	Live trees, plants, bulbs	5	3000		41326	-	262825	250796	387818	163784	-
07	Edible vegetables and certain roots	131432	7134609	2265117	2507965	4523914	3547194	33114588	121044563	39814604	15129117
08	Edible fruit, nuts, peel	13033390	7549383	31552948	16482815	3629875	4015002	2666716	29269068	8790707	14972254
09	Coffee, tea	4925	15687		57175	36300	104958	10792	115027	123147	788412
10	Cereals		380930		262208710	51794581	6178693	33340661	31465085	125803353	205501850
11	Milling products, malt	8632	3828	16185	95796	746094	219928	495936	1688096	3649066	4131846
12	Oil seeds, oleaginous fruits, grain, seed, fruit, etc.	8796920	178497	1258725	265896	1034535	24319	2320360	24236152	16892080	30470640
13	Lac, gums, resins, vegetable saps and extracts	-	117	-	25000	-	78	-	2093	25464	44461
14	Vegetable plaiting materials, vegetable products	-	-	1172	-	-	451433	-	779	-	-
15	Animal, vegetable fats and oil, cleavage products	43165	173	3154	15574595	16743251	28823179	6438869	20965495	7248903	59949764
16	Meat, fish and seafood preparations	33130	59487		63635	421688	40040	123523	283604	544390	444315
17	Sugars and sugar confectionary	708	116	4606	1421040	492	2425	7993	4476	93740	479431
18	Cocoa and cocoa preparations	31358	100	1484672	536644	25234	59189	109440	497215	3034430	6869563
19	Cereal, flour, starch, milk preparations and products	1163	111	893		44614	21084	507339	12034554	13529168	734218

Appendix 19 – Product structure of Russian agricultural and food exports to BRICS, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	11186	26212	54851	-	44765	90833	918496	213885	252702	335676
21	Miscellaneous edible preparations	26703	820	4994028	290840	586034	423971	1400512	1475769	879895	4061994
22	Beverages, spirits and vinegar	125138	901657	361687	582850	2384729	2451029	2478625	3039265	5624963	7885279
23	Residues, wastes of food industry, animal fodder	1072375	635241	642062	303788	-	44832117	8833558	24213619	38294974	53226356
24	Tobacco and manufactured tobacco substitutes	159	26935	17940	139303	179813	237784	97554	1687319	25821743	19119963

Source: Comtrade database, 2016

Appendix 20 – Product structure of Russian agricultural and food imports from OECD,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	209088	-	278975	11930500	41509240	21716201	84582064	92603091	79178662	40677877
02	Meat and edible meat offal	2957519	15291827	14771238	104755053	341165544	216521742	321634096	257055369	247683751	152329815
03	Fish, aquatic invertebrates	448233	6403807	14984431	52543341	119546600	136247670	124145653	119128077	302745817	420259607
04	Dairy products, eggs	5089525	5684704	4132929	10107230	15640494	13710650	23343422	19883175	45710590	77127150
05	Products of animal origin	-	54	-	-	30502	9044	-	-	4377	7502
06	Live trees, plants, bulbs	894	1444	4387	106296	250257	95238	77856	72178	165000	118917
07	Edible vegetables and certain roots	133178	162827	192171	806229	959635	2089525	2302759	1359253	1795692	1184940
08	Edible fruit, nuts, peel	4791757	10986469	36310360	49110298	16316162	151966627	168168124	176226472	184251160	123422254
09	Coffee, te	39801	113757	230027	738926	900362	530524	61487	711068	951631	1219821
10	Cereals	121760	49851	40486	16189	1336659	870809	3586060	1469191	8951627	3642617
11	Milling products, malt	113688	63891	373741	374932	221495	142383	168829	241333	171797	155342
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	129622	450534	773692	1686766	3066716	6165065	8841463	10668451	22338267	17678826
13	Lac, gums, resins, vegetable saps and extracts	799770	2274387	1036570	557160	1664443	2628830	2422125	614298	1165166	2996829
14	Vegetable plaiting materials, vegetable products	37	212	-	183	47	-	254	292057	2370	5512
15	Animal, vegetable fats and oil, cleavage products	393609	426137	250896	231132	143460.44	256601	328368	15232695	671980	3303778
16	Meat, fish and seafood preparations	294374	1452236	1950368	4200768	2895875	4409758	8069492	604637	15868790	16277440
17	Sugars and sugar confectionary	36549	88530	70046	122082	461521	504053	605763	139850	552101	531815
18	Cocoa and cocoa preparations	38955	871497	15724	764183	1461997	1263085	855389	959646	959910	795487
19	Cereal, flour, starch, milk preparations and products	72244	180642	236973	610207	1532772	1058631	1048151	1145944	1167899	1368312

Appendix 20 – Product structure of Russian agricultural and food imports from OECD,
USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	105389	1088333	9252178	11959564	28985667	21440707	25789786	33411206	31790875	40226683
21	Miscellaneous edible preparations	1210933	1728692	1980271	3946577	9418105	8154432	7040050	965370	6981495	15502952
22	Beverages, spirits and vinegar	1263926	7004372	15767661	32428607	53421457	55251276	57035436	66191227	85232287	67870678
23	Residues, wastes of food industry, animal fodder	78317	569241	38338	23408	-	1040774	2837089	4961654	7321051	3868287
24	Tobacco and manufactured tobacco substitutes	37243	4942126	4004529	4307103	3192946	5102292	660245	321208	293298	162136

Source: Comtrade database, 2016

Appendix 21 – Product structure of Russian agricultural and food exports to OECD, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	141971	105846	140190	56500	187952	500	-	6019	156276	30000
02	Meat and edible meat offal	-	194	2162	-	9564	-	-	-	-	-
03	Fish, aquatic invertebrates	122830308	129160716	179667295	91478099	116451585	195840557	194341892	251304433	202871283	211061164
04	Dairy products, eggs	3175969	2903	74157	73814	20342	3444	77343	33240	12527	82178
05	Products of animal origin	1900	554	36000	973	202379	97927	-	21277	2121861	1006229
06	Live trees, plants, bulbs				330	-	-	-	-	-	-
07	Edible vegetables and certain roots	1889338	1898058	2499100	2216958	2365602	750182	909856	1045776	1517568	1012234
08	Edible fruit, nuts, peel	843	192756	-	-	345	-	120953	1275	4363	3969
09	Coffee, tea	286		517		482	1182	119	525	3563296	1262967
10	Cereals		2886	1592	304	994560	7658465	5022021	6033122	10337126	13379052
11	Milling products, malt	1273	9673	20405	13180	67907	86114	28457	155712	200040	165598
12	Oil seeds, oleaginous fruits, grain, seed, fruit, etc.	289731	128629	840785	136907	235231	343056	505840	1141981	1009274	260565
13	Lac, gums, resins, vegetable saps and extracts	-	-	50064	36607	27508	44883	-	-	54000	-
14	Vegetable plaiting materials, vegetable products	-	-	-	-	-	-	-	-	-	-
15	Animal, vegetable fats and oil, cleavage products	28938	746	62341	17094	10929	82531	173363	78775	732455	3131921
16	Meat, fish and seafood preparations	8596258	10473364	2754704	1170361	1446295	1390897	660008	1339366	1210586	1295010
17	Sugars and sugar confectionary	4206	7128	7051	20234	19021	8782	238869	382045	327080	191224
18	Cocoa and cocoa preparations	4003	28399	19386	182433	70746	2370878	5049913	4879800	1288265	122665
19	Cereal, flour, starch, milk preparations and products	141971	105846	140190	56500	187952	500	-	6019	156276	30000

Appendix 21 – Product structure of Russian agricultural and food exports to OECD, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	1290	11047	26971	33859	31464	18901	402826	248939	12783	21373
21	Miscellaneous edible preparations	-	-	-	-	-	-	-	-	-	-
22	Beverages, spirits and vinegar	36285	36127	211324	114568	420609	62892	69093	735114	490495	779427
23	Residues, wastes of food industry, animal fodder	2589862	1231500	792331	816790	392725	5048255	4620254	2158252	2712760	3081783
24	Tobacco and manufactured tobacco substitutes	128581	-	-	-	-	1247	40552	48120	-	361705

Source: Comtrade database,2016

Appendix 22– Product structure of Russian agricultural and food imports from the rest of
the world, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	10541575	25478214	47595855	236726443	404148413	297513837	468748885	569559475	334122436	218548756
02	Meat and edible meat offal	986955118	1541346679	1479408164	3029288532	4503735232	3653428596	4336508492	5449869784	4542234580	2927351844
03	Fish, aquatic invertebrates	128002610	297412092	606994724	1059149782	1677181318	1663892624	1900986163	2001615436	2256561252	1765288304
04	Dairy products, eggs	240132087	419982864	753416463	908507191	1547240861	2058063741	2147918189	3257876269	4361419855	3745131860
05	Products of animal origin	19347967	18884041	23403476	42079309	47890281	79692598	79640841	73615138	74646660	66620870
06	Live trees, plants, bulbs	42025210	94248296	184683786	361331200	749260388	755533050	915535215	984952735	957516034	848093149
07	Edible vegetables and certain roots	292090647	211047404	388016611	778407359	1751918017	1939645956	2597977976	2128301929	2474552540	2452797657
08	Edible fruit, nuts, peel	601467731	759027820	1441913490	2737466932	3708104359	4829637780	5537252522	5551948998	5599983638	4771619088
09	Coffee, te	83688673	184540192	276062739	391714171	598049246	809352524	867456687	924749574	960829202	971708230
10	Cereals	499170861	126956784	434606930	313629961	447023542	73661736	355181114	463954537	603512909	466360281
11	Milling products, malt	162855638	190282643	205770497	101165469	153000698	103785284	135551223	164750502	182348948	177284557
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	76372475	69738788	123646384	231312054	579468299	745717540	882413578	927002182	1266278240	1424897901
13	Lac, gums, resins, vegetable saps and extracts	22312595	36676645	37232568	50806926	110215380	97485599	101165525	101464036	90523906	90827275
14	Vegetable plaiting materials, vegetable products	3754389	2591116	3945289	2925175	3431712	2174520	1421480	1959472	2149651	2382192
15	Animal, vegetable fats and oil, cleavage products	390484204	586759943	535443545	654329540	1577462937	1349936991	1560982315	1274168439	1223738457	1225339028
16	Meat, fish and seafood preparations	88308622	119360971	118100392	162727457	267126992	241144892	352519239	557332801	620744716	590758754
17	Sugars and sugar confectionary	614631535	609941706	388838186	317487363	406353227	452028735	490973049	376188006	403344596	543586288
18	Cocoa and cocoa preparations	195163881	402427208	496591325	608075619	1077473865	1275995930	1441210670	1389387513	1400339305	1350882339
19	Cereal, flour, starch, milk preparations and products	85405102	24181607	207733587	302881789	586206162	634768497	779919500	990319663	1211430592	1265086551

Appendix 22– Product structure of Russian agricultural and food imports from the rest of the world, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	230922234	362334510	483996730	724049176	1021444787	991358599	1046133309	1095094035	1165592881	1454482092
21	Miscellaneous edible preparations	198325280.1	349620835	546025751	742475266	1218835517	1289583840	1412801032	1412547798	1615675230	1542911034
22	Beverages, spirits and vinegar	403880672	617646335	1111705546	1468676603	2525003986	2159675439	2654093243	2984068759	3260854588	2962082962
23	Residues, wastes of food industry, animal fodder	145321362	256010168	363623969	533951774	1002250239	912315380	1042960611	1089227418	1191907684	1129727482
24	Tobacco and manufactured tobacco substitutes	594346129	564692408	564515844	627713825	790000986	740457258	761850549	750185589	842329508	772628194

Source: Comtrade database, 2016

Appendix 23– Product structure of Russian agricultural and food exports to the rest of the world, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
01	Live animals	2733413	3614915	6836043	2789036	1320507	2039534	2495282	2076106	3221961	1879767
02	Meat and edible meat offal	1613076	1671207	1541807	6551199	14271670	26528217	24666609	37242654	26414033	44613626
03	Fish, aquatic invertebrates	138755585	177954112	164433950	217395301	201106007	1056567929	1221495473	1257124919	1312837371	1634972002
04	Dairy products, eggs	39954177.16	17570878	14765275	14767744	22112279	24958729	28610940	39678857	42462326	41082482
05	Products of animal origin	5489729	6000285	8735228	19389398	17575814	18726602	29482011	39639723	60300745	56873545
06	Live trees, plants, bulbs	250210	409775	731687	441251.9894	501272	612081	910572	185284	314895	433195
07	Edible vegetables and certain roots	13677224	15451276	42765936	55048685	54070756	48735655	201809185.4	200787337	185787138	210235862
08	Edible fruit, nuts, peel	19750058	19185470	45141706	77762050	26764081	16626723	47826868	36674565	29997454	30729473
09	Coffee, te	1076129	1460650	4816485	5026131	7579531	9838951	11138942	16493146	18617077	25609547
10	Cereals	48595678	948169764	561323102	1147876279	2884783276	2275051451	4208727701	5947962841	4310090701	6469777644
11	Milling products, malt	33330198	17333189	28670782	45196132	161925931	56486159	187726931	83800631	83361868	80807784
12	Oil seeds, oleagic fruits, grain, seed, fruit, etc.	179765108	22737688	49017910	77244751	74279091	81431366	197173452	339834119	291180620	299739075
13	Lac, gums, resins, vegetable saps and extracts	690047	55555	-3709654	615326	745530	677416	1198302	1168530	895726	1890082
14	Vegetable plaiting materials, vegetable products	52584	74031	-14285	3540143	7854194	5712767	8711188	12866320	11539143	11942526
15	Animal, vegetable fats and oil, cleavage products	47230295	29391603	121678766	376610386	642117751	537173929	905234033	1681113306	1624686523	1617255096
16	Meat, fish and seafood preparations	30880579	25650832	8717103	19137573	20542755	20612334	26679595	28136632	34022394	33545099
17	Sugars and sugar confectionary	-19021375	34411342	27959828	33174184	45186948	35887646	74583853	94145573	92362854	107539524
18	Cocoa and cocoa preparations	-6129422	17997890	58867568	45349310	69595396	70192803	88475225	97416686	111916866	107632485
19	Cereal, flour, starch, milk preparations and products	3596831	16384935	32975830	46984113	77909720	60607899	73491687	70413614	79936299	84063622

Appendix 23– Product structure of Russian agricultural and food exports to the rest of the world, USD

Code	Product label	2000	2002	2004	2006	2008	2010	2011	2012	2013	2014
20	Vegetable, fruit, nut and other preparations	2985860	4726846	19411510	8759742	15429707	24979831	33228830	35401432	43797515	42250546
21	Miscellaneous edible preparations	21193534	30113023	44954164	53315570	76948669	92210040	60206442	-21410589	110125490	196558451
22	Beverages, spirits and vinegar	37528508	70940879	67803595	115854076	190860903	167635132	204900007	214912467	252542442	260010577
23	Residues, wastes of food industry, animal fodder	18366373	12971580	80770078	86167651	182975669	226066749	342765874	687396262	849472613	916796545
24	Tobacco and manufactured tobacco substitutes	1375365	7058420	36557005	72290559	186218569	48088325	86774077	136452631	188429597	186884081

Source: Comtrade database, 2016