

Comparative advantages of Kazakhstan assessed by the Balassa Index: consistently competitive exports are limited to raw materials with low added value

Diana Madiyarova

Ainur Amirbekova

Marat Syrlybayev

L.N. Gumilyov Eurasian National University

Department of Economics, Kazakhstan

Keywords

Export competitiveness, competitive advantage, revealed comparative advantage, Balassa index.

Abstract

The aim of this study is to determine the competitive advantages of Kazakhstan in trading with other countries based on revealed comparative advantages, in which the interlinked commodity exchanges will be developed in the medium-term. This research applies the index of comparative advantages. The paper presents an empirical analysis of the competitive advantages of Kazakhstan export products. The Balassa Index was proposed for Kazakh six-digit HS product category level, the choice of which was due to their modest design of calculation and simplicity in interpreting the results.

The main results reveal that Kazakhstan shows a comparative advantage in a number of sectors; the product groups with a strong competitive advantage show a significant variation in comparative advantage. The results can be applied to assess Kazakhstan's export competitiveness and the restructuring of its domestic trade policy.

Corresponding author: Ainur Amirbekova

Email addresses for corresponding author: ainur_amirbekova@yahoo.com

First submission received: 1st September 2017

Revised submission received: 2nd November 2017

Accepted: 5th February 2018

Acknowledgment

The financial support from L.N. Gumilyov Eurasian National University is gratefully acknowledged. The research work was completed as part of PhD program at the Department of Economics of L.N. Gumilyov Eurasian National University. The authors also thank Matt Hodgkinson of Author AID for language editing.

1. Introduction

Improving the competitiveness of the economy is a foremost concern of many countries, including Kazakhstan. Many researchers emphasise the important role of exports for a country's competitiveness (Kumar, 2010). The significance of a study of the competitiveness of Kazakhstan's products is closely linked to the country's integration into the World Trade Organization (WTO). Kazakhstan's accession to the WTO distributes products from the most competitive sectors of participating countries through export-import operations, and opens up wider opportunities for development of the country as a full subject of the global economy. It will increase competition in the domestic market due to the influx of imported goods and increase the difficulty to enter international markets. This raises the need to study the current level of competitiveness of domestic products in the global market, and to develop a smart export strategy.

The purpose of this research is to study the structure and competitiveness of Kazakhstan's export products in the global market. The methods, assuming calculation of a classical variant of the Balassa Index on the basis of revealed comparative advantages, is applied for 4499 Kazakhstan commodity positions by six-digit commodity nomenclature of foreign trade activities (CNoFTA) for 2001–16. Based on the index calculation, it can be determined whether the whole country has 'revealed' comparative

advantages. The results obtained in the framework of the research can be applied to the concept development of export strategy and restructuring of the domestic trade policy in Kazakhstan.

This research is based on the following three approaches: first, to explore a variety of approaches to define the category of competitiveness; second, to determine a set of appropriate methods for product competitiveness assessment; third, to analyse the current level of competitiveness of Kazakhstan's products in the world market, with the application of selected methods.

2. Literature review on competitiveness and assessment theories

Many researchers actively study the concept of 'competitiveness'; nevertheless, it still has no unambiguous interpretation. Conceptual uncertainty entails conceptual amorphousness, which cannot reflect the fullness of the empirical factors of the actual processes of market competitiveness. Nevertheless, a significant contribution to competitiveness studies and the mechanisms of the formation of competitive advantages have made famous scientists such as Smith (1776), Ricardo (1817), Krugman (1994), Keynes (1936), Dornbusch et al. (1977), Balassa (1965), Chamberlin (1933), Schumpeter (1954), Porter (1993), and Tyson (1992).

Competitiveness can be used as an excuse for protectionism and cost cutting (Haque et al., 2014) or it can be used to inspire innovation and increase productivity (O'Donnell 1997; Toming 2007). The ability to produce goods and high levels of service, which will compete with the international market and at the same time grow income, could be an additional definition of competitiveness (Tyson, 1992).

The concept of competitiveness has evolved through several stages, from classical theories of mercantilism, to the absolute advantage of nations, then from the theories of competitive and comparative advantages, to neoclassical analyses of international competitiveness of countries. According to Adam Smith, key factors in classical economy were investments in equity and trade, and he proposed the concept of absolute advantages (McCreadie, 2009). He was the first to prove that competition stabilises the rate of profit, leading to an optimal allocation of labour and capital cost. The main input made by classical and neoclassical theory comes from the concept of comparative advantage, based on the Ricardian trade model (1817). Moving beyond the concept of Smith, David Ricardo stated that benefits from international trade can be achieved when countries specialise in the production of goods in which they have a 'comparative advantage' (McCreadie, 2009). Later, the Heckscher-Ohlin introduced the "concept of relative endowment with production factors". Heckscher-Ohlin's theory emphasises the cost levels derived from different prices of product factors within countries. Presumptions of traditional trade theories are based on price disparity, which is influenced by supply and demand factors (Bezic et al., 2011). A fundamental investigation of competitiveness issues is reflected in Michael Porter's cluster theory (Porter, 1990). This micro-economic approach is based on the global economy, and divides into national, regional and local competitiveness. Porter's theory is based on every country having a certain set of competitive advantages, wherein competitiveness depends on whether the resources are used efficiently. As a result, there are different arguments and diverse competitiveness theories, and they all have a different theoretical foundation. Some, arising from neoclassical belief, oppose independent use of concept of 'competitiveness' itself and deny the possibility of state regulation. Others have tried to apply the theory of corporate strategies for the national economy.

There are differences in available approaches, not only conceptually but also in methodological aspects of measuring the level of competitiveness. For example, Bruneckiene et al. (2012) believe that the use of the Balassa Index is the best way to measure export competitiveness. In this aspect, Mikulis and Ruzevicius (2011) developed a model to measure export competitiveness through factors and their specific targets.

One of the most used methods to assess the competitiveness of commercial products in the world market is the Balassa Index Calculation, which helps to reveal the comparative trade advantages of the country. This index was proposed by Bela A. Balassa in 1965 to investigate the structure of exports for industrial goods and was called the coefficient of 'revealed comparative advantage' (RCA) (Balassa, 1965). The calculation is based on existing statistical data for exports of goods of a particular country or group of countries (Razumnova and Prusova, 2009). Based on the calculation of this index, authors can determine whether the whole country 'revealed' comparative advantages or not. However, to establish their main sources is not possible. The formula for calculating this index is as follows:

$$RCA_1 = (X_{ij} / X_i) / (X_{wj} / X_w), \quad (1)$$

where X_{ij} is the export product j of the country i ; X_i is the total exports of the country i ; X_{wj} is the global export of the product j ; X_w is the gross export of the worldwide (Balassa, 1965).

This method of given indices was applied by a number of researchers such as: Leishman et al. (2013) for the assessment of the international competitiveness of Australian agribusiness; Utkulu and Seymen (2004a), who studied the competitiveness of Turkish goods on the EU market; Bhattacharyya (2011), who investigated the competitiveness of horticultural products from India on the world market; Bojnec and Ferto (2014a) in the analysis of the export competitiveness of dairy products of European Union countries on global markets; and Khatibi (2008), who analysed the competitiveness of Kazakhstan, with respect to the EU-27 countries.

Later, Balassa modified the initial method to calculate the Index of Comparative Advantages (Liesner, 1958). This modification has been made for the analysis of comparative advantages of the UK in trading with the countries of the Common Market (Liesner, 1958). The modified formula for calculating the index looks as followed:

$$RCA_2 = X_{ij} / X_{nj}, \quad (2)$$

where X_{nj} is the export of goods j for n -number of countries.

According to Utkulu and Seymen (2004b), the Index of RCA is not quite authentic, because it does not take imports into account, especially in those cases when its value is significant. To address this shortcoming, an alternative option of the index is calculated as:

$$RCA_3 = (X_{ij} - M_{ij}) / (X_{ij} + M_{ij}), \quad (3)$$

where M_{ij} is the import of j goods into i country.

In calculating this index, according to the given formula, its value may range from -1 (When $X_{ij} = 0$, at this rate a revealed comparative 'drawback' exists) to +1 (When $M_{ij} = 0$, a Revealed Comparative Advantage). Along with that, there are uncertainties with regard to zero values (Greenaway and Milner, 1993). Critics of the RCA Index have brought attention to the problems with logarithmic transformation and the importance of simultaneous consideration of the import side (De Benedictis and Tamberi, 2004).

Thus, Vollrath (1991) has offered a slightly different competitiveness-measuring technique, according to which the calculation of three RCA values are expected. In this technique, the specified indices were named as relative trade advantage (RTA), the logarithm of the relative export advantage (ln RXA), and revealed competitiveness (RC). With the aim of systematic material disclosure, we will name them as RCA_4 , RCA_5 , and RCA_6 accordingly. The Relative Trade Advantage (RCA_4) is calculated as the difference between the Relative Export Advantage (RXA), which is equivalent to Balassa index (RCA_1), and the Relative Import Advantage (RMA):

$$RCA_4 = RTA = RXA - RMA, \quad (4)$$

$$RXA = RCA_1 = (X_{ij} / X_i) / (X_{nj} / X_n), \quad (5)$$

$$RMA = (M_{ij} / M_i) / (M_{nj} / M_n), \quad (6)$$

Therefore,

$$RCA_4 = RTA = RXA - RMA = (X_{ij} / X_i) / (X_{nj} / X_n) - (M_{ij} / M_i) / (M_{nj} / M_n), \quad (7)$$

The Logarithm of the Relative Export Advantage (RCA_5) is calculated according to the formula below:

$$RCA_5 = \ln RXA = \ln RCA_1, \quad (8)$$

The third index of Revealed Competitiveness (RCA_6) is determined using the following formula:

$$RCA_6 = RC = \ln RXA - \ln RMA, \quad (9)$$

Razumnova and Prusova (2009) calculated these three indices in their study of the competitiveness of Russian products on the global commodity market. In addition, it was used for interregional market within BRIC countries, in order to analyse the dynamics of change in the countries'

comparative advantages. Razumnova and Prusova (2009) have chosen a methodology to assess competitiveness, based on the methodology proposed by Vollrath (1991), as this method takes into account the import indicator, characterises the global dimension of the trade structure of the countries, and avoids double counting.

Daniela Marconi (2006) considered the advantages and disadvantages of the RCA in detail. She believes that the original Balassa Index is still the best indicator for revealed comparative advantage. According to Marconi, 'forced symmetry' could only complicate the dynamic analysis of the RCA. Further use may cause a forced association with extreme values of the distribution. The application problem with these or similar RCA indices lies in the fact that actual trade regulation can be undermined due to governmental interference, such as import restriction, export subsidies and other measures of governmental protection policies.

Thus, economic science provides various methods to evaluate product marketability in the context of macroeconomics. All considered methods are based on index calculations and each method is characterised by a variety of advantages and disadvantages. Scientists often apply only one method, while other researchers take a complex approach. The choice of method application, is determined by the goal, territorial coverage of the research and statistical data availability.

3. Methodology and data

In the assessment of the product competitiveness of Kazakhstan, we will use the classical version of the Balassa Index, because there is a need to apply such an indicator to achieve a more accurate determination of the level of competitiveness. The Balassa Index was chosen due to its simplicity of calculation and ease of interpretation. Despite certain shortcomings, the analysis confirms that the index of comparative advantage of Balassa is very useful and informative.

The formula by Balassa is as follows:

$$RCA_2 = (X_{ij} / X_{it}) / (X_{nj} / X_{nt}) = (X_{ij} / X_{nj}) / (X_{it} / X_{nt}), \quad (10)$$

Where, X is exports; i is the investigated country; j is the product; t is the group of commodities; n is a group of countries.

Thus, the RCA is calculated as the ratio of the export of certain goods to the country's total exports and the export of the selected item to the total volume of its world export. It is assumed that a comparative advantage is revealed if the value of the index is greater than 1; if the index is less than 1, we conclude that the country has a comparative lack of advantage in the trade of the product and thus the product is not competitive on the world market. As the Balassa Index does not take imports into account, additional methods will be needed to determine the competitiveness of Kazakhstan products.

Data on trade statistics has been collected from the information platform Trade Map International Trade Centre (ITC). For this analysis, 4499 products the Harmonized System (HS) for classifying goods is a six-digit code system from Kazakhstan export basket have been selected, from 2001 to 2016. The six-digit level of classification identifies commodities at a more detailed level regarding the commodity structure of exports and imports and provides an opportunity for a more accurate conclusion. The index was calculated even for those products the export of which was carried out only for one year from the entire considered time interval. It should be noted that the calculation of the Balassa Index for some commodity items has not been made, because there are no statistical data on global exports of these goods.

4. Limitations and scope for future work

However, a significant problem in the application of the above indices of RCA is that trade patterns can be changed due to the intervention of the state (import restrictions, export subsidies, etc.) that will inevitably entail a distortion of the indicator of comparative advantage.

5. Empirical analysis

According to the Balassa Index, calculations displayed in Table 1, as of 2016 the number of exported products of Kazakhstan was 2694, of which 246 are competitive and 2448 are uncompetitive.

The share of competitive headings in total exports, from 2001 to 2016, decreased from 12% to 9%, despite the total amount of exports increasing. Accordingly, the share of non-competitive goods in the global market is still prevalent in the total volume of Kazakhstan's exports (88% in 2001 and 91% in 2016), which is a negative trend.

Table 1. Results of Balassa index calculation for exported commodities positions of Kazakhstan

	TNEP*	RCA>1**	Share in total exports	RCA<1***	Share in total exports
	(1)	(2)	(3)	(4)	(5)
2001	1935	234	12%	1701	88%
2002	1837	241	13%	1596	87%
2003	1931	257	13%	1674	87%
2004	2018	213	11%	1805	89%
2005	2041	204	10%	1837	90%
2006	2046	196	10%	1850	90%
2007	2003	199	10%	1804	90%
2008	2132	180	8%	1952	92%
2009	2234	156	7%	2078	93%
2010	2052	144	7%	1908	93%
2011	2439	161	7%	2278	93%
2012	2438	164	7%	2274	93%
2013	2462	181	7%	2281	93%
2014	2477	196	8%	2281	92%
2015	2553	210	8%	2343	92%
2016	2694	246	9%	2448	91%

NOTES: *Total number of exported products of the Republic of Kazakhstan.

**The number of positions for which RCA>1.

***The number of positions for which the index RCA<1.

Source: Author's calculations based on the ITC Trade Map database

Figure 1 shows the change in the number of non-competitive headings and the total amount of exported commodities. The new export commodity positions characterised the generally low level of competitiveness, which does not change the overall competitiveness of Kazakhstan's exports. The curve of competitive goods is downward sloped, clearly reflecting the reduction of the specific weight of these goods.

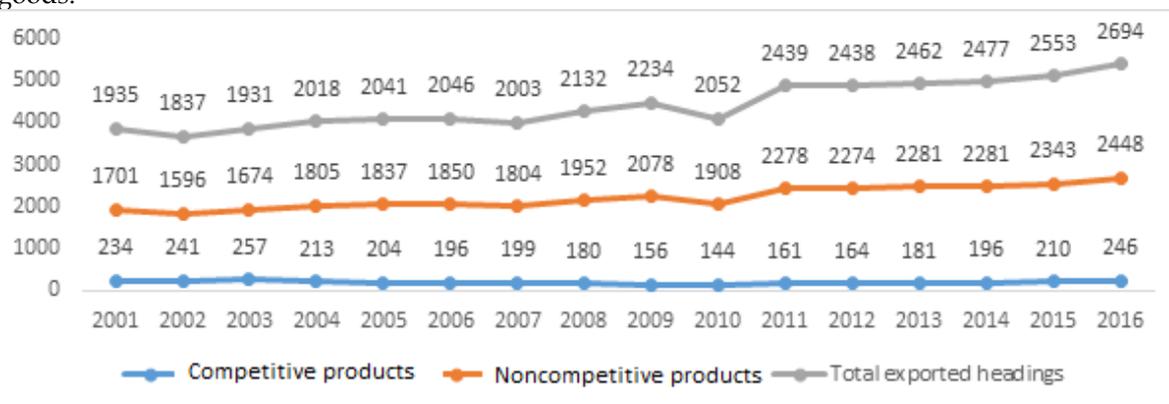


Figure 1. Dynamics of the competitiveness of the Kazakh exports in accordance with the Balassa index

Source: Author's calculations

6. Analysis and Discussion

In general, the analysis of the competitiveness level of Kazakhstan products consists of two types of study, which will be reviewed in depth.

First stage. Depending on the values of the Balassa Index, the entire set of the Kazakh exported goods can be divided into six categories.

The first category covers competitive goods throughout the period under study ($RCA > 1$ from 2001 to 2016). This category includes 56 headings such as "wheat flour or wheat-rye", "barley", "natural barium sulphate", "iron ores and concentrates, burnt pyrite in addition to agglomerated", "iron ores and concentrates copper", "iron ores and concentrates zinc", "crude oil and oil products crude, received from bituminous minerals", "natural gas", etc. In general, the competitive goods are raw materials with low added value, such as nonferrous metal ores, oil, and various types of raw products. The largest share among competitive commodity items for the entire period was occupied by the production of an enlarged product group "Base metals and articles thereof" (41.8%). This is followed by the groups "Mineral products" (25.5%) and "Products of the chemical or allied industries" (16.4%).

The second category covers headings with increasing levels of competitiveness (first $RCA < 1$, then $RCA > 1$). This group consists of 123 headings. Their share in total exports was 10.5%. The largest share belongs to the commodity positions of the enlarged groups "Base metals and articles thereof" (22%), "Products of the chemical and related industries" (15.4%). Denominations of many of these headings includes the word "raw", which reflects the raw material orientation of Kazakh exports. It is preferable to increase the competitiveness of products with high levels of redistribution, although a growing trend of competitiveness can be regarded as a positive aspect.

The third category covers headings with decreasing levels of competitiveness (first $RCA > 1$, then $RCA < 1$). This group consists of 68 headings or 5.8% of the total exports of Kazakhstan. The largest share with decreasing level of competitiveness is the product group "Base metals and articles thereof" (33.8%). The second place belongs to "Machinery, equipment and mechanisms" (13.2%), then "Products of plant origin" (10.3%). The competitiveness of the food industry and agriculture is decreasing; they only make up 5% of commodity positions with increasing competitiveness and none among goods with constant competitiveness.

The fourth category is commodity items with a non-permanent level of competitiveness (RCA takes different values). The number of the headings in this category was 259 (22%), among them "chilled fish fillets", "chick", "wheat gluten, whether or not dried", "sunflower seeds", "beet sugar", "siliceous sands and quartz sands", etc. The largest share belongs to "Base metals and articles thereof" (35.3%).

The fifth category, covers the uncompetitive headings throughout the period under study ($RCA < 1$ from 2001 to 2016). This category includes 599 commodity items or 50.9% of total exports.

A sixth category is new types of export products that appeared since 2016. There are 71 products, with a share of about 6%. These include "toilet linen and kitchen linen", "milk and cream of a fat content > 10%", "axis for electrical purposes, and wheels and parts thereof for railway or tramway locomotives", "industrial robots", "O-acetylsalicylic acid, its salts and esters", "tanning extracts of vegetable origin", etc. These products do not belong to the list of competitive products, however there is potential for increasing the competitiveness of these new 73 products. In addition, among them are competitive products with RCA above 1, for instance, "waste, waste and scrap, polymers of ethylene" and "gummed or adhesive paper in strips or rolls of a width ≤ 36 cm (excluding self-adhesive)".

The products in these sections have the potential of growth of competitiveness. Headings of such sections of the HS as "mineral products", "products of chemical and related industries", "base metals and articles thereof" are present in every selected category depending on the accepted values of the index. Thus, the results of the Balassa index calculations indicate that the overall exports of the country are characterized by a low level of competitiveness; the number of items that are consistently competitive is slight and these are mostly products with low added value.

Second stage. Apart from determining the level of competitiveness by category, a comparative analysis for competitiveness dynamics of Kazakhstan's exports was done. This analysis was conducted in terms of time ranges, periods: 2001-12, 2001-13, 2001-14, 2001-15, 2001-16. It helps to determine the behavior of each category of products during the analysed period.

Table 2. Dynamics of competitiveness of export products of the republic of Kazakhstan

	2001-2012	2001-2013	2001-2014	2001-2015	2001-2016
First category - commodity items with a constant level of competitiveness throughout the period under review	68	60	52	52	56
share in %	7,4%	5,9%	5,6%	5,0%	4,8%
Second category - commodity items with an increasing level of competitiveness (first $RCA < 1$, then $RCA > 1$)	55	80	82	83	123
share in %	6,0%	7,9%	8,9%	8,0%	10,5%
Third category - commodity items with a declining competitiveness level (first $RCA > 1$, then $RCA < 1$)	58	129	100	120	68
share in %	6,3%	12,8%	10,8%	11,6%	5,8%
Fourth category - commodity items with a non-permanent level of competitiveness (RCA takes different values)	34	148	212	215	259
share in %	3,7%	14,6%	23,0%	20,7%	22%
Fifth category - noncompetitive commodity items throughout the period under review	572	654	476	568	599
share in %	62,0%	64,7%	51,6%	54,7%	50,9%
Sixth category - new types of export products	135	8	37	21	71
among them competitive products	9	6	3	1	2
share in %	14,6%	0,8%	4,0%	2,0%	6%

Source: Author's analysis based on the calculation results of the Balassa index

According to the results of the comparative analysis of competitiveness indicators, the number of constantly competitive goods has declined from 68 (7.4%) to 56 (4.8%) of commodity items, respectively, the reduction amounting to 17.6%. On the contrary, the category of goods with an increasing level of competitiveness shows a trend of sustained growth. Its number has doubled from 55 to 123 items for the analyzed period; its share has increased from 6% to 10.5%. The group characterized by a decrease in competitiveness increased from 58 to 68 commodity items. Furthermore, its share increased from 6.3% to 5.3%. The number of commodity items with a variable level of competitiveness has also considerably increased. The greatest growth of this category of items falls in the period 2001-2016 - 259 commodity items. The number of commodity items with a constant level of non-competitiveness has been steadily growing every year.

For a five-year period, the structural changes in the category of new export goods took place: in 2012, this category included 17 enlarged commodity groups on FEACN, whereas in 2016 their number accounted for 15. The structure of goods classified in this category, in spite of its quantitative decrease, has changed and replenished with new enlarged groups, such as:

- ✓ "8" - raw hides, tanned leather; fur and articles thereof; saddlery and harness products and harness; travel goods, handbags and similar goods; articles of animal gut;
- ✓ "16" - machines, equipment and mechanisms; electrical equipment; parts thereof; sound recording and sound reproducing apparatus, apparatus for recording and playback, television image and sound, parts and accessories.

The positive aspect of this trend is that the share of new goods in Kazakhstan's exports is growing and among them there are competitive goods for which RCA is above 1 (see Figure 2).

In 2012, out of 135 new items, only 7 were competitive. However, within five-year period, some of these items have retained their competitiveness, and they were attributed, according to the author's study,

to the category of is with an increasing level of competitiveness, some of them, unfortunately, demonstrated a complete loss of their competitiveness.

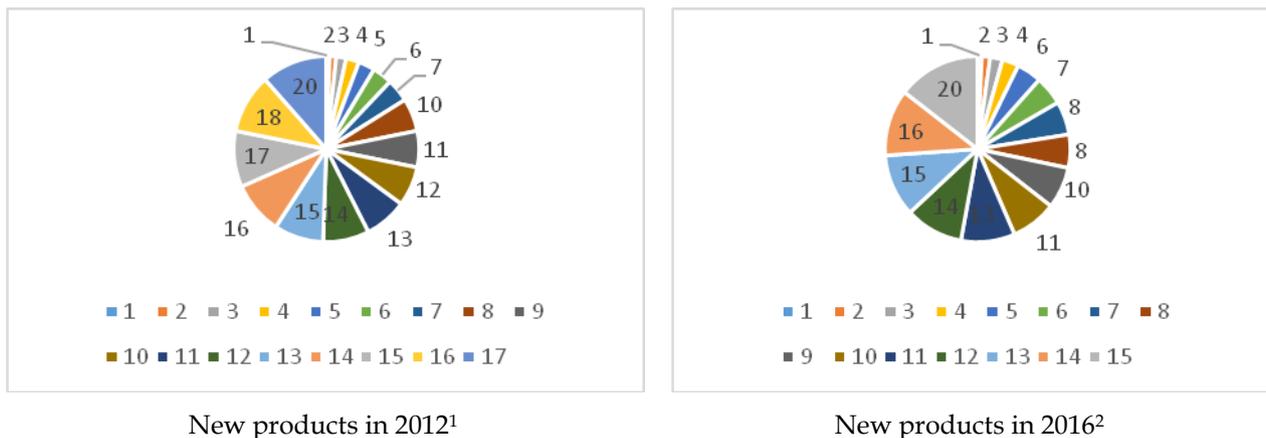


Figure 2. Structural change of new products between 2012 and 2016, %

Source: Author's calculations

The distribution of commodities to categories, based on the trends and values of the Balassa Index, showed that the number of commodities that are always competitive in the world market are significantly less than the number of commodities that are permanently uncompetitive. In this case, the data on the commodities accounted for the largest share in the total cost of Kazakhstan's exports.

Accordingly, the results of the calculations of the Balassa Index for headings of Kazakhstan's exports suggest that the overall exports of the country are characterised by a low level of competitiveness and the number of items that are consistently slightly competitive are mostly products with low added value. Headings for such sections as "Mineral products", "Products of the chemical or allied industries", "Base metals and their products" are present in each of the selected categories. Consequently, the products in these sections have the potential to increase their level of competitiveness.

7. Conclusion

The competitiveness of domestic products in foreign markets is one of the most important topics of research at present. Export competitiveness is an integral component of the overall assessment of a country's competitiveness. Before starting the study of the product competitiveness, it is necessary first to form a clear understanding of the core concept, as the existence of many interpretations of

¹The structure of new products for 2012: 2 - Vegetable products, 3- Fats and oils of animal or vegetable origin and their cleavage products; ready-made edible fats; waxes of animal or vegetable origin, 4- Prepared food products; alcoholic and non-alcoholic beverages and vinegar; tobacco and its substitutes, 5- Mineral products, 6 - Products of the chemical and related industries, 7 - Plastics and articles thereof; rubber, rubber and articles thereof, 10 - A mass of wood or other fibrous cellulose materials; recycled paper or cardboard (waste paper and waste); paper, cardboard and products made of them, 11 - Textile materials and textile products, 12- Footwear, headgear, umbrellas, 13- Products from stone, gypsum, 14- Natural pearls, 15 - Base metals and metal products, 16 - Products machinery and equipment, 17- Machines, equipment and machinery.,18- Instruments and apparatuses optical, photographic, cinematographic, measuring, control, precision, medical or surgical; watches of all kinds; musical instruments; their parts and accessories, 20- Miscellaneous manufactured goods.

²The structure of new products for 2016: 2 - Vegetable products, 3- Fats and oils of animal or vegetable origin and their cleavage products; ready-made edible fats; waxes of animal or vegetable origin, 4- Prepared food products; alcoholic and non-alcoholic beverages and vinegar; tobacco and its substitutes, 6 - Products of the chemical and related industries, 7 - Plastics and articles thereof; rubber, rubber and articles thereof, 8 - Raw hides, leather, natural fur and articles thereof; saddlery and harness; travel accessories, ladies' bags and similar goods; Products from the intestines of animals (except fiber from silkworm fibroin), 10 - A mass of wood or other fibrous cellulose materials; recycled paper or cardboard (waste paper and waste); paper, cardboard and articles thereof, 11 - Textile materials and textile products, 13- Products from stone, gypsum, 14- Natural pearls, 15 - Base metals and articles thereof, 16 - Products of machinery and equipment, 20- Miscellaneous manufactured goods.

competitiveness was revealed. Finding an objective method is an important step to assess the competitiveness of products. The selection of indicators to assess competitiveness should be based on a deep understanding of their strengths and weaknesses.

In this paper, we have assessed the product competitiveness of Kazakhstan in the world market, to develop export strategy. The research is aligned with the context of the country in the global integration processes. The Balassa Index was used in this work due to the practicality of the models and simple interpretation of the results. The calculation results of each Index have a high degree of similarity. Empirical analysis at the level of Kazakh goods' competitiveness on the world market has identified the following key points.

During the period under review, the prevailing part of the exported goods of the Republic of Kazakhstan is not competitive and the share of competitive products is reducing. The current level of competitiveness ensured by the competitiveness of the extractive industries and products with low degree of processing is because of demand from consumer countries. The raw material component of the national economy to day is the basis of competitiveness of Kazakh exports. Nevertheless, there is a weakening competitive position of Kazakhstan in the category of food industry and agriculture, which was found in the analysis of the country's trade integration with the countries.

Currently in Kazakhstan, there is a lack of development of the resource and production base in the major exporting sectors, which negatively affects the competitiveness of the products. Maintaining high competitiveness is, undoubtedly, a positive aspect as holding a position in the world market of goods is difficult. However, the presence of a large number of commodities with a declining level of competitiveness, for Kazakhstan, may lead to a worsening the situation under WTO membership. This aspect is not positive, as the implementation of measures of the national programmes in the country had to contribute to the modernisation of existing businesses and the creation of new businesses, one of the main objectives of which is to produce competitive products on various parameters. However, a positive impact on the level of competitiveness is not seen.

Based on these results, we recommend that Kazakhstan, in its economic development strategy, focuses on re-orientating the national economy from the production of raw materials to the formation of an innovative economy, which can bring the competitiveness of the national economy to a qualitatively new level. Kazakh producers should place themselves into already existing international value chains. For this, it is necessary to reduce production costs, while increasing productivity, labour intensity and efficiency of material production.

References

- Adam Smith's *The Wealth of Nations: A modern-day interpretation of an economic classic*. Karen McCreadie, 2009, Infinite Ideas, Oxford, UK; ISBN 978-1-906821-03-6
- Bezic, H. et al. (2011). Changes in the competitive advantages of Croatia's manufacturing industry, Heri Bezić, Ljerka Cerović, Tomislav Galović. Changes in the competitive advantages... Zb. rad. Ekon. fak. Rij. vol. 29, sv. 2, pp. 465-487.
- Bhattacharyya, R. (2011). Revealed comparative advantage and competitiveness: a case study for India in horticultural products. International conference on applied economics. – ICOAE.
- Bojnec, S. (2001). Trade and Revealed Comparative Advantage Measures: Regional and Central and East European Agricultural Trade. Eastern European Economics. Volume 39, Issue 2.
- Bojnec, S. and Ferto, I. (2014a). Export competitiveness of dairy products on global markets: The case of the European Union countries. *Journal of Dairy Science*, 97, 10, pp.6151-6163.
- Bojnec, S. and Ferto, I. (2014b). Forestry industry trade by degree of wood processing in the enlarged European Union countries, *Forest Policy and Economics* 40, pp.31-39.
- Bruneckiene, J. and Paltanaviciene, D. (2012). Measurement of Export Competitiveness of the Baltic States by Composite Index. *English Economics*, 23, 1, pp. 50-62.
- Chamberlin, E. (1933). *Theory of Monopolistic Competition*. Cambridge, MA: Harvard University Press.
- De Benedictis, L. and Tamberi, M. (2004). Overall specialization empirics: techniques and applications. *Open Econ. Rev.* 15 (4), pp.323-346.
- Dornbusch, R. et al. (1977). Comparative Advantage, Trade and Payments in a Ricardian Model with a Continuum of Goods, *American Economic Review*, 67, No. 5, December, pp.823-839.

- Ferto, I. and Hubbard, L. (2003). Revealed Comparative Advantage and Competitiveness in Hungarian Agri-Food Sectors. *The World Economy*, 26, 2, pp.247-259.
- Greenaway, D. and Milner, C. (1993). Trade and Industrial Policy in Developing Countries: A Manual of Policy Analysis. The Macmillan Press, esp. Part IV Evaluating Comparative Advantage, pp.181-208.
- Haque, A. et al. (2014). Export Performance of Malaysian Furniture Industry: Rethinking Competitiveness, *Middle East Journal of Business*, 9, 1.
- Keynes, J. (1937). The General Theory of Employment. *Quarterly Journal of Economics*, 51(2), pp.209-223.
- Khatibi, A. (2008). Kazakhstan's Revealed Comparative Advantage Vis-À-Vis the EU-27, ECIPE Working Paper. No. 03.
- Krugman, P. (1994). Competitiveness: A Dangerous Obsession. *Foreign Affairs* (March/April 1994), pp. 28-44.
- Kumar, A. (2010). Exports of Livestock Products from India: Performance, Competitiveness and Determinants, *Agricultural Research Review*, vol. 23, no. June, pp. 57-67.
- Leishman, D., et al. (2013). Revealed comparative advantage and the measurement of international competitiveness for agricultural commodities: an empirical analysis of wool exporters // Western agricultural economics association.
- Liesner, H. (1958). The European Common Market and British Industry. *Economic Journal*, 68, pp.16-302.
- Marconi, D. (2006). Comparative Advantage Patterns and Domestic Determinants in Emerging Countries // Banca d'Italia, Servizio Studi.
- Mikulis, J. and Ruzevicius, J. (2011). Management systems and competitiveness of a country-Lithuanian context. *Current Issues in Business Law*, 3, 0, pp.26-46.
- O'Donnell, R. (1997). The Competitive Advantage of Peripheral Regions: Conceptual Issues and Research Approaches. In B. Fynes & S. Ennis (eds), *Competing from the Periphery. Core Issues in International Business*. The Dryden Press, pp.47-82.
- Porter, M. (1990). *The competitive advantage of nations*. New York: The Free Press.
- Razumnova, L., Prusova S. (2009). Russia's competitiveness on the global product market and regional market in the BRIC countries // *Audit and financial analysis*. No. 6, pp. 1-6.
- Ricardo, David (1817), *On the Principles of Political Economy and Taxation* (1 ed.), London: John Murray, retrieved 2012-12-07 via Google Books
- Schumpeter, J. (1954). *History of Economic Analysis*, Oxford University Press, New York.
- Toming, K., (2007). The Impact of EU Accession on the Export Competitiveness of the Estonian Food Processing Industry, *Post-Communist Economies*, 19, 2, pp.187-207.
- Tyson, L. (1992). Who's bashing whom? Trade conflicts in High-technology industries.
- Utkulu, U. and Seymen D. (2004a). Trade and Competitiveness between Turkey and the EU: Time Series Evidence. *Europe in Global World-blending differences*, OPEN MINDS Conference, University of Lodz, Lodz-Poland, September.
- Utkulu, U., and Seymen, D., (2004b). Revealed Comparative Advantage and Competitiveness: Evidence for Turkey vis-à-vis the EU/15, *European Trade Study Group 6th Annual Conference, ETSG 2004*, Nottingham, September.
- Vollrath, T. (1991). A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed, *Weltwirtschaftliches Archive*, 127, 2, pp.265-280.