

# Economic Growth Priorities in the Field of Grain Industry: Grain Production and Food Processing Products

## Prioridades de Crecimiento Económico en el Campo de la Industria de Granos: Producción de Granos y Productos de Procesamiento de Alimentos

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#### ABSTRACT:

This article provides scientific-based recommendations to develop grain industry (production and grain-processing products), as well as to develop the grain market in countries with economies in transition (CEIT) for them to integrate into the world markets. We have determined current problems in grain industry of the Republic of Kazakhstan that are inherent in countries with economies in transition (CEIT), impeding industry development, as well as factors and conditions that contribute to the increasing number of grain producers from the countries with economies in transition (CEIT) in the international market channels. We have used such methods as comparative analysis, scientific literature analysis on grain market development, methods of induction and generalization, extraction of specific development conditions of the countries with economies in transition (CEIT) and quantification method. In the case of the Republic of Kazakhstan, we have revealed that grain production may be a key

#### RESUMEN:

Este artículo ofrece recomendaciones científicas para desarrollar la industria del grano (producción y procesamiento de granos), así como para desarrollar el mercado de granos en países con economías en transición (CEIT) para su integración en los mercados mundiales. Hemos determinado los problemas actuales en la industria del grano de la República de Kazajstán inherentes a los países con economías en transición que impiden el desarrollo de la industria, así como los factores y condiciones que contribuyen al creciente número de productores de granos de los países con economías En transición (CEIT) en los canales del mercado internacional. Se han utilizado métodos como el análisis comparativo, el análisis de la literatura científica sobre el desarrollo del mercado del grano, los métodos de inducción y generalización, la extracción de condiciones específicas de desarrollo de los países con economías en transición (CEIT) y el método de cuantificación. En el caso de la República de Kazajstán,

element in the agriculture development mechanism of the countries with economies in transition (CEIT). It requires a proper modern situation in the industry, instruments stimulating the development, support for grain industry (production and grain-processing products). The grain market is considered as a set of exchange relations on buying and selling grain and its processing products, governed by economic ties. In terms of the character of economic relations, the grain market of the Republic of Kazakhstan can serve as a model for other agricultural markets with similar problems. In this case, the proposed recommendations for grain industry improvement in a number of countries with economies in transition (CEIT) are relevant.

**Keywords:** grain market, grain producers, farm products, countries with economies in transition (CEIT), agro-industrial complex.

hemos revelado que la producción de granos puede ser un elemento clave en el mecanismo de desarrollo agrícola de los países con economías en transición (CEIT). Requiere una situación moderna adecuada en la industria, los instrumentos que estimulan el desarrollo, el apoyo a la industria del grano (producción y productos de procesamiento de granos). El mercado del grano se considera como un conjunto de relaciones de intercambio en la compra y venta de granos y sus productos de transformación, regidos por vínculos económicos. En cuanto al carácter de las relaciones económicas, el mercado de granos de la República de Kazajstán puede servir de modelo para otros mercados agrícolas con problemas similares. En este caso, las recomendaciones propuestas para la mejora de la industria del grano en un número de países con economías en transición (CEIT) son relevantes.

**Palabras clave:** mercado de granos, productores de granos, productos agrícolas, países con economías en transición (CEIT), complejo agroindustrial.

## 1. Introduction

Grain production improvement in the Republic of Kazakhstan (as well as in other countries with economies in transition (CEIT)) will promote its large-scale entry into internal and international grain markets. Certain markets in Asia and former-Soviet countries are the most important for grain production development in the Republic of Kazakhstan. In particular, there is a potential to develop trade ties on the Russian consumer market due to deterioration of relations between the Russian Federation and one its major grain suppliers – Ukraine (Iwanski, 2014). This can significantly affect the current structure of these markets, changing them for the better by creating certain environment for competition on product quality due to diversification of product supply and on price for the end-consumer.

At the same time, grain market elements with industries, related to grain production and its processing products, as participants do not form a single and balanced system of economic relations in the Republic of Kazakhstan, significantly reducing the potential for internal and international markets activity development (Alshanov, 2006, p. 551; Sukhanova, & Amangalieva, 2010, pp. 66-72; Vershinin et al., 2016, pp. 5058-5069). Grain market is divided into several segments: grain, flour, cereals, bread and bakery products. This problem is common not only in the Republic of Kazakhstan, but also in other CEIT. For example, unstructured and unstable rules and restrictions on the grain market is a significant problem in Ukraine (Vasylieva, Vinichenko, & Katan, 2015, pp. 41-44), where grain production is one of the leading export-oriented agricultural sub-sectors and one of the main sources of foreign currency gain.

Thus, imperfection of institutional structure of grain market, the overall technical and technological backwardness, lack of innovative activity, low standardization level of product quality, poor market infrastructure, management discrepancy (both public and corporate sectors), grain market adjustment to the globalization processes are problems necessary to be solved. Internal grain market in CEIT is disorganized and unstable, as is evidenced by the observed increase in prices for grain and bakery products, as well as by grain shortage in off-season period in some regions of the country. There is also no reliable mechanism for cost control or for formation and use of regional stabilization grain funds. These problems are significant obstacles to agro-industrial complex development in the Republic of Kazakhstan and other CEIT in the context of economic globalization and threats to the global food crisis.

The problem of finding development priorities is an important problem of the grain market, reflected by modern scholars. In particular, researches consider profit increase as such a priority (Abraham, & Harrington, 2013, pp. 21-33). However, we cannot agree with them completely, as the experience of developed countries shows that the solution requires a full-

scale priority development. Besides profits, priorities may probably involve the increase of market activity, problem solving related to food supply and improving competitiveness (Diaz-Bonilla, Orden, & Kwieciński, 2014; MacDonald et al., 2015, pp. 275-289; Gray, Oss-Emer, & Sheng, 2014.).

Currently, there is an ongoing debate about the state role in grain market development (Klyukach, Altukhov, & Prolygin, 2000, pp. 10-13; Andriichuk, 2014, pp. 5-21), the validity of state regulation and smart state intervention in market processes. However, they all stand for the fact that economy efficiency is dependent on the base market development (Coléno, & Hannachi, 2015, pp. 60-65; Eitelberg, Vliet, & Verburg, 2015, pp. 1236-1248). In particular, grain market is a base market in the Republic of Kazakhstan, as in many other CEIT, like Ukraine.

In studying and generalizing the scientific works of economists, we have revealed that the aspects related to industry specifics of grain industry (production and grain-processing products) in the context of economic globalization and increased competition are less studied. In the case of the Republic of Kazakhstan, these conditions became to be under attention after entering to the WTO and after the participation in the Eurasian Economic Union; in the case of Ukraine – in European integration, conditioned by signing the Association Agreement with the EU. Similar specific is inherent in other CEIT, but with different vector of integration transformations on the market (Byerlee, & Deininger, 2013, pp. 13-34; Chikweche, & Fletcher, 2014, pp. 400-423).

Thus, we point to the fact that scientific solutions, concerning grain market improvement in CEIT, are required to be made due to specific problems of grain market development inherent in CEIT, as they will provide stable grain industry development, which is important for the economic development of these countries.

The relevance of this article is determined by the importance of grain production improvement in the countries with economies in transition (which have their own specifics) for them to integrate into the world markets. Therefore, the results of this paper are important not only for the Republic of Kazakhstan, but also for many other countries with similar economic development, structure and level of agrarian sector development in the country.

Thus, the purpose of this article is to develop scientific-based recommendations to develop grain production and grain market in CEIT for them to integrate into the world markets.

This involves certain objectives:

- to determine current problems of Kazakh grain production that are inherent in CEIT, impeding industry development;
  - to determine factors and conditions that contribute to the increasing number of grain producers from the CEIT in the international market channels;
  - to determine areas for grain market development in the CEIT for them to integrate into the world markets.
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## **2. Methods**

We have chosen the Kazakh grain enterprises (production and processing) as the object of the study. In determining current problems of Kazakh grain production sector that are inherent in CEIT, impeding industry development, we have used such methods as comparative analysis and scientific literature analysis on the subject. In determining factors and conditions that contribute to the increasing number of grain producers from the CEIT in the international market channels, we have used the induction method. In determining areas for grain market development in the CEIT for them to integrate into the world markets, we have used the following methods: synthesis and extraction of specific development conditions for CEIT.

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## **3. Data, Analysis, and Results**

Grain market is a complex economic system comprising a set of economic relations between its subjects—who may be rural producers, companies, and organizations for its procurement, storage, industrial processing, as well as various structures that serve the movement of grain and its products throughout the process chain from the manufacturer to consumers.

Grain and its products are in high demand in the economy of any country, as they are used as raw material for producing food products.

It is appropriate to consider the totality of species of grain resources, as well as semi-finished products derived from these technological processes and final food products as a system of commodity relations in which there is a hierarchy, filled with material, information, and financial flows. Therefore, consistency must be maintained between the links and stages of product distribution in the volume of supply and demand, as raw materials and products, as well as price levels and profitability. Thus, the production cycle is closer to production of grain; the need of this interrelation is higher. Modern economists have expressed different views on the economic interests of farmers and enterprises for storage and processing of grain. According to agricultural scientists, the basis of the grain market is directly related to grain production, and its main economic entities are grain producers—the economic interests, which should be given priority and maintenance and should be sent to all other market structures (including state governments) (Klyukach, Altukhov, & Prolygin, 2000, pp. 10-13).

Grain market performance of the CEIT depends on the concerted practice of its enterprises and industries, on the reliability and strength of economic ties, as well as on economic relations between its subjects.

Grain procurement and storage systems destruction have resulted in local monopoly system (instead of state) that made the agriculture completely dependent on harvesting and processing enterprises (Diaz-Bonilla, Orden, & Kwieciński, 2014).

As in any process of reproduction, fully-integrated grain production ends with post-harvest processing, procurement, storage and processing. Mechanized thrashing floor is the first link in the process chain, which receives almost all the grains with high moisture and trash contents after harvest due to the specificity of the region (Robinson et al., 2012, pp. 239-274).

Thus, provision of measures on overcoming the imbalances between agricultural and processing enterprises is one of the main problems to be solved in the near future due to organizational and economic relations between them – one of the bottlenecks in grain sub-complex of the CEIT.

In this regard, various organizational and economic factors are important to consider at the current stage of Kazakh grain sub-comple development in order to avoid disruption of process in production, to avoid significant product loss and, ultimately, meet the consumer needs. Wherein, economic relations between the enterprises should be based only on mutually beneficial terms, excluding any dictates on the part of of both the state and the monopoly enterprises that consume agricultural products and produce physical resources.

Limited number of mechanized grain and seed warehouses is the another problem. The storage capacity has decreased from 5.9 to 2 million tons over the past 10 years, only 70% of warehouses are adapted to long-term storage. Thus, grain, including commercial grain, is usually kept in unsuitable and unequipped storage space (Kraemer et al., 2015). Rates of natural loss (RNL) that depend on mode of storage and on the type of storage containers indicate the extent of storage losses. Thus, RNL for wheat, rye and barley upright storage is 0.05%; for warehouses – 0.07%, for unsuitable space – 0.12%. RNL will increase by 40% if grain is stored from three to six months and by another 40% if grain is stored from six months to a year. In terms of unsuitable space, these rates are higher.

Grain cleaning and drying machinery in floor-based farming is inefficient and out-of-date – many of them are not in operation. Almost all thrashing floors have no modern laboratory equipment to conduct a preliminary assessment of grain quality in the fields after harvest and before putting in the uprights.

Therefore, grains with different quality are mixed together, a large number of strong and valuable wheat goes into the category of ordinary or waste, grain losses increase and the infection probability eventually leads to its loss in value, to reduced efficiency of production and marketing. For example, wheat of first and second classes are practically not being bought in the Republic of Kazakhstan; wheat share of fourth and fifth classes has increased and ranged from 5% to 35% over the years. As a result, grain producers face a serious problem: they have either to take the grain to the upright storage for safekeeping or to sell/deliver it for processing to certain enterprises, or to leave in their possession based on favorable market conditions, gradually encasing it.

It costs a pretty penny for commodity producer to keep grain in the uprights under current pricing for storage, drying and processing, as well as under high tariffs on transportation. Calculations show that if the commodity producer keeps 100 tons of grain for six months under current pricing, the volume of grain reserves for storage services can range from six to ten tons. In this case, the loss is 18 tons from depositing grains over basal condition, for example – with moisture content 8% and trash content 10%. In addition, producers have to pay for drying and processing services, as well as for bringing the grain quality to the relevant standards (60 thousand tenge or 8.0 tons). There are also transport costs for wet and impure grain transportation in volume terms: 50 km – 30 tons. Thus, the total amount of grain left by the grain storage bin for rendered services with due account for transport costs could reach 35-39 tons (Fellmann, H elaine, & Nekhay, 2014, pp. 727-742).

Matters get even worse because the grain owner is forced to rely on the objective assessment of grain quality by the laboratory at the grain-collecting station due to no ability to conduct quality analysis at the farm. In practice, however, this approach is not always appropriate, as grain enterprises create unaccounted offsets of grain by lowering the quality of harvested grain. Thus, they improve their performance by means of agriculture. The imperfect state standards are contributing to this situation, allowing up to 2% error in determining the gluten content in grain (Fellmann, H elaine, & Nekhay, 2014, pp. 727-742). The grain is loaded at the grain-collecting station almost without determining its physical weight due to the lack of weight lifting equipment. This may also cause an abusive activity. In the context of weakening state approach to control the grain quality and grain-storage facilities, the infringement of rural producer's interests (artificial lowering grain quality, changing grain grades, price raising for unreasonable service etc.) is not only preserved, but also increased.

This situation negatively affects the grain quality, which has a downward trend in CEIT in recent years. The solution is related to technical re-equipment of grain production and processing in CEIT, as well as to transition towards international quality standards to have native products (products of CEIT) in the developed grain markets.

The economic mechanism of mutual interest in ensuring the necessary grain range and high quality is the central problem in improving economic relations between grain producers and grain-storage facilities.

In the context of wheat predominance in the grain production of the Republic of Kazakhstan, the price has to be used to stimulate the production of other food, cereal and forage crops, as it is a determining factor in production efficiency for grain sub-complex.

The study of the institutional structure of the grain products market allowed to prove the necessary changes that can fully ensure the market function. The competitive advantage of market participants is achieved within the cluster. In the last decade, clusters are an effective tool for economic development in the Western countries (Sukhanova, & Amangalieva, 2010, pp. 66-72).

Grain product cluster is characterized by a variety of links in the production and processing of products that allows to trace the movement of grain flow and to submit it to a functional structure. Some components of the grain products cluster are underdeveloped and do not meet the requirements of the other participants. Thus, the relationship with the producers of seeds

and fertilizers, water supply organizations, and research institutes is characterized as weak, while the remaining relationships are characterized as strong.

The structure of economic functions include: the production volume of grain and grain products sufficient for the full and complete satisfaction of needs; ensuring the availability of the money supply needed for production, consumption, distribution, and exchange of grain and grain products of the highest quality and necessary range; development of mechanisms to encourage competition among grain producers; planning and forecasting production, consumption, distribution, and exchange of grain and grain products; increasing the share of wages for workers who are engaged in the production of grain and grain products in the total volume of work; and, accurate accounting and control of wealth.

Financial functions must ensure: functioning of the tax credit system, which provides domestic production of grain and grain products; insurance and financial investment risks, as well as the supply of grain and grain products—as well as pay for them; and, the creation of the pricing mechanism that would ensure effective prices parity for grain, means of production, and labor.

Commercial functions include: free sale of grain by various producers and their purchase by consumers with relevant license; ensuring the timely receipt of funds for the sale of grain and grain products; development of a network of commercial structures, providing an approximation of products to consumers; and, development of a network of futures trading, providing a guaranteed price for grain to its producers. The social functions include: meeting the needs for different bread products in the assortment; improving the living standards of the enterprise workers by addressing their material, cultural, welfare, health, and spiritual needs; creating conditions for the purchase of environmentally pure bread; and, the creation of a safe working environment.

Technical features suggest the following issues: the production of high quality products in the range, similarly produced in highly developed countries, taking into account the peculiarities of the national food culture; the use of resource-efficient technologies for the production of grain and grain products; use of scientific achievements and technological progress in the world. With regard to the current market conditions, let us specify control functions on the macro and micro levels.

The analysis of cereals market segments showed a lack of security by product category, so that it becomes import-dependent. Despite the formed segments in the country, grain producing enterprises have unrealized reserves. Over the past three years, the marketability of cereals produced in the local enterprises was 78.7%.

Effective functioning of grain industry economic entities is not possible without the establishment of appropriate infrastructure, which is a complex of industries and services, providing a stable relationship between producers and consumers, thus facilitating the promotion, preservation, and rational use of this product in the country and abroad (Klyukach, Altukhov, & Prolygin, 2000, pp. 10-13).

For the solution of the market development tasks for grain products, it is necessary to involve exchange mechanisms on the basis of transition from transactions with cash goods to forward and future operations. Insurance market is a special socio-economic environment—a defined sphere of monetary relations where insurance protection acts as the object of sale and purchase—and the offer and demand formed for it. This kind of activity in Kazakhstan is still in its infancy. The subjects of grain products market do not fully exploit the potential of insurance, lending, investing to solve existing problems. In these conditions, it is possible to propose the following measures to reduce risks in the grain products cluster organization:

- 1) creation of fund for agricultural insurance;
- 2) measures for the financial stability of insurance operations;
- 3) compensation from the state budget in the amount of 40-50% insurance premium;
- 4) creation of a mutual insurance system for agricultural enterprises.

It is necessary to use special preferential lending program in the grain sub-complex of Kazakhstan. The perspective form of solution to the problem of agricultural producers credits is to create cooperative banks with support from the budget. At this stage, the only promising form of long-term investment attraction is leasing. However, high interest rates make leasing advantageous mainly for large grain companies and agricultural companies (Ushakov, 2007, pp. 2-7).

It is necessary to introduce a differentiated scale of interest rates. An important direction in the development strategy of the grain market is the expansion of foreign trade. Kazakhstan has a great potential to become a major supplier of grain to the world market. The results showed that some businesses are benefiting from the lack of awareness of rural producers. In general, grain prices in the domestic market is much lower than the world markets. Based on the experience of the world, the sale of grain crops pools eliminates unnecessary intermediaries, through whose services the grain prices are rising.

Thus, opportunity creation for direct relationships between producers and consumers is an important area of grain market development in CEIT in order to minimize intermediation costs as part of final product cost, adversely affecting its competitiveness in international grain markets.

Geography of Kazakhstan grain export is presented in more than 70 countries. This includes Middle East, North Africa, the European Union, and mainly the CIS countries. However, the deep-continental location of Kazakhstan and, as a consequence, the lack of direct access to sea ports create a major barrier to the advancement of our grain to the traditional markets. Only due to transit tariffs, every ton of Kazakh grain becomes more expensive by about \$50. In addition, there is a problem of timely access of local exporters to sea grain terminals. In order to solve the problems of transporting grain to the world markets, it is necessary for exporters to start creating their own export infrastructure that will allow them to go directly to the largest markets.

As part of these measures, the capacity of grain terminals is expanded in the Caspian Sea port of Aktau (Kazakhstan), Baku (Azerbaijan), and Amirabad (Iran). At present, the power of these infrastructures allow a monthly shipment of 50 - 55 th. tons of grain to Iran and Azerbaijan.

The construction of grain terminals is carried out on par with the Iranian partners at the port of Imam Khomeini (Iran) with access to the Gulf countries. It is planned to involve terminals in Aktau and Amirabad to export Kazakh wheat in swap operations to the third-world countries through the Southern ports of Iran. There is a plan to build a railroad grain terminal on the border with China. The agreement was reached for the delivery of test consignment of wheat and providing Kazakhstan by annual quotas for the supply of grain in China.

The construction is continued for the elevator complex in the southwestern part of the country (Beyneu station), with the result that the conditions will be created to increase the grain export in the direction of Turkmenistan and Afghanistan. The joint construction is carried out for the railway from the border of Kazakhstan through Turkmenistan and Iran with access to the ports of the Indian Ocean.

However, the largest private system companies are searching for their own markets and creating their own export infrastructure in the Baltic Sea, Black Sea and Sea of Azov, the port of Ventspils, Azov, and Kherson (Altuhov, 2012, p. 485). In the future, such an area may have an impact on the current grain market structure of the Azov-Black Sea region and could be one of the factors, contributing to Kazakhstan's entrance to the markets of Turkey and, therefore, of entire South-West Asia.

As world trade practice shows, export grain processing products has a high economic efficiency in the global market, indicating the feasibility of its expansion. It should be noted that 90% of the wheat market accounts for its low-quality varieties; therefore, the majority of countries focused on price by importing the products. The internal price predetermines the competitiveness of wheat in the world market and needs a constant control (the

competitiveness index of 1.49 is calculated as the relation of the price of import and the price of domestic market) (Alshanov, 2006, p. 551). To enter the world market, the domestic products must be competitive not only in quality but also in price. For example, with all things being equal, the Kazakh wheat at a competitive price in the markets of Kyrgyzstan, China, and Iran cannot compete in the markets of Russia, Ukraine, Georgia, and North Africa.

The State takes appropriate measures to support agricultural producers and domestic exporters of grain. Its role is reinforced in supporting and regulating grain products market. In Kazakhstan, the purchase of grain at the state level is vested in the JSC "NC" Prod Corporation. It annually holds a purchase of grain from agricultural producers into the state resources at fixed prices, including spring and summer of advances. Such measures prevent dumping of grain prices.

Licensing mechanism allows the state to regulate the work of grain enterprises for grain storage. The introduction of cereal grain receipts allows the use of grain as collateral instrument, and accordingly, involves credit resources of second-level banks and international financial tools in the grain production.

JSC "Fund of guaranteeing performance of obligations for grain receipts" is created and functioning, the task of which is to protect the rights and interests of grain receipts holders from the inability of the company to return the grain in quality and quantity specified in the grain receipts.

In recent years, the price in the world markets was significantly dropped, which was one of the main reasons for the slow pace of grain exports. The cost of wheat in the Black Sea ports decreased from 190 to 160 dollars. In order to make Kazakh grain competitive, it is necessary to increase the subsidies—for its transportation through the territory of Russia and China—from 20 to \$40 per ton, which will involve another 4 million tons of wheat until the next harvest.

In addition, it is necessary to rethink the agricultural production potential in Kazakhstan and the transition to the diverse plant growing due to changes in cropping patterns. We can compare the structure of crops in the Northern Kazakhstan (in the main grain region) and Saskatchewan province, which is, in fact, an analog of the Northern region of Kazakhstan by its soil and climatic conditions.

In Kazakhstan, namely the intensity of inter-regional movement of goods defines the term saturation of the food market and its effectiveness, which is characterized by territorial continuity, a variety of conditions that do not allow food supplies to form in its entirety and range from domestic production regions.

Therefore, one of the main development directions of economic cooperation between regional markets is to encourage: effective territorial division of labor, with the natural and economic conditions of the regions; the accumulation of the necessary food resources to create a sustainable flow of movement of goods; and, allowing not only to meet the demand for food in any region of the country, but also to reduce the penetration of imported products (Eschenbach, 2006, p. 24).

Development of inter-regional exchange requires the creation of specific conditions for the movement of goods. It is necessary to eliminate the randomness of inter-regional movement of food, which leads to high losses, as the product itself, as well as money spent on its production and transportation.

The development strategy of inter-regional relations should be based on the formation of specialized areas, characterized by a line production of standard products with rationed amount of expenses. Otherwise, the delivery to other regions will not always be effective.

For the development of farms, whose specialty is zonal responsibility, certain privileges are required (land, tax, credit, etc.). In order to deepen zone specialization, it is not necessary to create mono-production and to adhere to a system of optimum production combinations (diversification) that will sustain the stability of the producers' income. Thus, the geographical



division of the producing and consuming regions will lead to high volumes of commodity streams.

In order to minimize the cost of merchandising, it is necessary: to ensure the shortest and optimal routes; to choose the most efficient modes of transport and transport companies with regard to their mobility and reliability; to identify intermediaries with the timely execution of orders, reliability, and efficiency of pricing for goods and services (Rutherford, 2006, p. 64).

The fragmentation of businesses and their own inability to form a consignment of products for efficient use of capacity of vehicles (excluding grain) is an obstacle to the development of inter-regional trade flows, optimal agricultural raw materials, and food. Therefore, the prevalence of small-scale production conditions is effective to create an intermediate distribution in the form of points (centers) for the reception and storage of agricultural products, purchasing, and marketing cooperatives.

Moreover, in remote areas of the markets on the basis of these structures, it is advisable to form a department for processing of milk, meat, and vegetables. On the one hand, it is an incentive to increase production of agricultural products, and, on the other, it is an important factor in strengthening the integration process, forming consignments of products coming into the wholesale markets, which should become a leading element in inter-regional trade. By calculations, 70% of fruit and vegetable products and a half of the realized heads of cattle and sheep can become available in the wholesale food markets. They will become the center of the formation of internal regional prices, which subsequently serve as a reference point for all other channels of sales and, in particular, at the conclusion of the inter-regional supply contracts.

Another problems in inter-regional market are transport tariffs and pricing—the deterrent as specialization of regions and their effective cooperation. Transportation costs are currently 1.5 to 2 times higher than the rates in the EU (Anderson, 2005, p. 75). In addition, the low density of the transport network and the poor quality of roads make it difficult to organize trade flows across regions. In fact, the total length of railways and highways is 37 m per sq. km in the country, which is 15 times lower than that of Europe. The growth rate of transport tariffs is also higher than the rise in agricultural product prices.

The transport component has become a major obstacle to the development of specialized areas because long distance transportation makes the products uncompetitive in the regions of consumption, and consumers are guided by suppliers or close to cheaper imported goods—neglecting quality.

In order to coordinate inter-regional trade flows, it is necessary to solve the problem of information support for the movement of goods by enhancing the functions of the national information and marketing center. This will create a portfolio of orders for the purchase of similar products from agricultural producers within certain government quotas, including discount due to their consolidation, as well as an effective mutual marketing strategy and physical distribution of products with producers.

In the context of inter-regional goods movement optimization, there is an opportunity to import food substitute in some regions, and, thereby, extend the market for local products. Studies have shown that in solving the problems of goods movement, products market capacity for Kazakh producers can be increased by 31% for tomatoes, 21% for onions, 4% for grapes, 6% for beef, and 17% for poultry meat.

On the one hand, this will make it possible to take into account the interests of grain producers and buyers more fully, to eliminate conflicts between them; on the other – to reflect the product quality of individual private producers by the joint grain sales of grain cooperatives and farmers. This special service on determining the grain quality will contribute to organizational environment for batch analysis. This requires generating average daily samples for each agroformation and farm.

There is a need for government involvement in regulating the interaction of regional agri-food systems taking into consideration the complexity of inter-regional trade flows of agricultural raw

materials and food.

Lean agricultural production is the choice of priorities. Priority determination and substantiation involves a deep analysis of external environment, a comprehensive study of the internal potential of the enterprise and a detailed study of individual products according to their criteria of economic efficiency, competitiveness in agro-food market and the long-term development prospects.

We propose to focus grain production development on the following areas:

- consistency of production specialization with the natural and climatic conditions of CEIT. In particular – coarse grain production and processing is advisable to develop in the Republic of Kazakhstan; in Ukraine – mass cereal production for premium grade products in order to meet export requirements; in the Rostov region (Russia) – durum wheat production.
- incentives for introduction of innovative and resource saving grain production technologies (like government support, carried out in the countries of central and eastern Europe (Griffiths et al., 2013) in the form of tax benefits, product purchase at a fixed price even if the market price is lower than this fixed price is, soft lending) that would contribute to resourcesaving and reduction of product unit cost with a high level of quality;
- production capacity integration (creation of industrial clusters for grain production and processing, final product production in order to save on the fixed costs of enterprises and to improve the competitiveness in the international markets);
- elimination of imbalances between agricultural and processing enterprises by avoiding disruption of process in production, forming economic relations between enterprises based on mutually beneficial terms, excluding any dictates on the part of both the state and the monopoly enterprises that consume agricultural products and produce physical resources;
- opportunities for direct relationships between producers and consumers, in order to minimize intermediation costs as part of final product cost, adversely affecting its competitiveness in international grain markets.

These actions should be comprehensive and specific within the framework of organizational and economic mechanism of grain production development. This mechanism is a set of institutional structures, methods and incentives for their interaction, levers of organizational, economic and legal impact on production, distribution, exchange and consumption of grain processing products through their production, processing and marketing network.

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## **4. Discussions**

In contrast to many other studies of grain production development by incentives (Klyukach, Altukhov, & Prolygin, 2000, pp. 10-13), this study is focused on improving the mechanism of effective grain market formation and development based on specific areas. They were selected in terms of analyzed current situation and development problems in the grain market: interaction between enterprises, technical re-equipment, state support, direct relationship formation between the market participants, introduction of innovations. Wherein, theoretical developments presented in the article are related to practice and have a direct impact on methodological proposals of the article (in particular, on recommendations on the mechanism formation for grain production development).

Grain farming in CEIT is advisable to reorient on large-scale, integrated production (clustering) with due account for nature and climatic conditions of the region. Namely, this is production based on territorial grouping of farms for growing, storing and processing certain types of products, formed according to the criteria of profitability, sustainability and efficiency in using natural resources and production capabilities.

The obtained results are applicable for countries with economies in transition; the level and dynamics of grain development is limited due to specific institutional, technological, technical, organizational and managerial problems that are common in these countries. These countries have also problems related to poor transportation provision that significantly limits the opportunities to improve the competitiveness of grain production for internal and international

market activity development.

Issues of state regulation of the grain market should focus primarily on exchange and interest areas of the bakery enterprises activity because the grain market is considered as a set of exchange relations, which are governed by economic ties to buying and selling grain and its products.

In the context of the functioning of Kazakhstan to the WTO, the Eurasian Economic Union, the state should create the necessary conditions for effective operation of the domestic agricultural producers and related trade and purchasing, procuring, grain processing, and other enterprises secondary to grain market and infrastructure.

Only in this case, the goal of protecting the interests of grain products end-users (population) will be achieved within the framework of food security.

Thus, it is necessary to understand regulation not as introduction of any restrictions, but stimulation of all market subjects by using direct and indirect methods.

Complex solution of these priority areas will bring the Kazakhstan grain products market to a competitive level from the perspective of the global economy.

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## 5. Conclusion

Kazakhstan's grain market analysis, as well as analysis results of the countries with economies in transition, reveals:

- the importance of consistency of production specialization with the natural and climatic conditions of CEIT;
- the need to promote at the national level, the introduction of innovative and resource-saving technologies of grain production and grain processing;
- the necessity to promote the production capacity integration (creation of industrial clusters);
- the feasibility of measures on overcoming the imbalances between agricultural and processing enterprises;
- the necessity to create conditions for direct relationships between producers and consumers in the field of production and production distribution in the world market.

The development and formation of the grain market depend on the effectiveness of the methods, means and methods of control used at various stages of wealth creation of society: national, sectoral, and regional. At these levels, the organizational, economic, commercial, financial, social, technical, and other tasks for managing production, consumption, distribution, and exchange of grain and grain products are resolved. The organizational and support functions include state regulation of the market, the development and use of standards corresponding to the world level in the conditions of accession to the WTO, the Eurasian Economic Union, and other measures.

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