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# Kazakhstan's Competitiveness in the Export of Flour Products

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**According to the International Grain Council, Kazakhstan will be the world's top exporter of flour, annually exporting roughly 3.3 million tons of flour (in grain equivalent). The global market for flour exports is roughly 11.5 million tons a year, and Kazakhstan's share is roughly 19% of the market. Improving the competitiveness of the export potential of flour is feasible though the development of public–private partnership and deep processing technologies for grain products.**

**Key words:** Deep processed grain products, Export of processed grain products, Flour market, Market conditions, Logistical constraints.

This study is motivated by the fact that the growing trend of globalization and food shortage problems has significantly affected Kazakh flour's competitiveness in the market. Kazakhstan's export potential is estimated at 20–25 million tons of grain per year. Kazakhstan's agricultural sector has great expertise and high-potential opportunities for introduction of investment. The global need for food will increase every year. We cannot miss this chance, said Kazakh President Nursultan Nazarbayev (2012) in his address entitled "Socio-economic modernization—the primary direction of Kazakhstan's development."

This study summarizes the historical development and current status of Kazakhstan's grain and flour industries, with particular attention to recent developments, opportunities, and constraints, and suggests strategies based on these conditions.

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## DISCUSSION

Let us consider the historical context within which Kazakhstan has become a leader in flour exports over the past several years. In 2005, the country ranked first in the world in the export of flour per capita, and in 2007, it was ranked the first in the world in the physical volume of flour exports. For example, Kazakhstan exported four times more than Russia, whose milling capacity is 10 times that of Kazakhstan. Today, every second ton of flour produced in the country is intended for export, with the vast majority of exported flour of first-class quality (Borbasova, 2011: 42–43).

In 2007 and 2009, Kazakhstan exported roughly 15% and 19% flour world-wide, respectively. The international community calls Kazakhstan's milling industry success the "phenomenon of Kazakhstan." According to the International Grain Council, Kazakhstan will become the world's top exporter of flour, currently exporting roughly 3.3 million tons of flour (in grain equivalent), up from 3.5 million tons in 2009/10. The global export market for flour is approximately

11.5 million tons per year, of which Kazakhstan provides roughly 19% (Arbuzova, 2010).

In recent years, export of flour has seen a steady annual increase as opposed to that of grain, which is more susceptible to the influence of objective and subjective factors. Global trade practice reveals that export of processed grain products has high economic efficiency in the global market, which suggests the feasibility of Kazakhstan's expansion of such production. Currently, 90% of the wheat market consists of a low-quality variety, indicating that most countries are focused on price. Domestic price determines wheat's competitiveness in the world markets, requiring constant domestic price control (competitiveness index calculated as the ratio of import prices and domestic prices being equal to 1.49). For comparison, Kazakhstan specialist Borbasova (2011) presents a table comparing Kazakhand North American (U.S. and Canada) wheat (Table 1).

To enter into the world market, Kazakh products must be competitive in both quality and price. For example, the Kazakh wheat ceteris paribus is competitively priced in the markets of Kyrgyzstan, China, and Iran, but cannot compete in the markets of Russia, Ukraine, Georgia, and North Africa.

As Table 2 illustrates, the export prices of grain and flour significantly vary depending on the place of shipment. The highest price has been observed at the Sarakhs, Kudukli, and Hairaton stations (Uzbekistan, Afghanistan). Compared with 2011, the 2012 prices decreased significantly, greatly increasing the competitiveness of Kazakh grain and flour.

Eighty percent of Kazakhstan's foreign trade earnings come from the export of processed agricultural products. In 2012, Kazakhstan's position in flour markets has considerably strengthened and now approaches that of Russia. Uzbekistan, Tajikistan, Afghanistan, and Kyrgyzstan are the main export markets of Kazakh flour, comprising over 95% of total exports. Kazakhstan has been these markets' major flour products supplier for the last 10 years, with the exception of the first half of 2009 when Kazakhstan's high grain prices were much higher than those of Russia and Ukraine. However, after the devaluation of the Kazakh currency, grain prices have stabilized, allowing Kazakh millers to not only recover their positions in these markets but also increase flour exports to over 2.2 million tons.

Recently, in response to the prevailing market conditions, Kazakhstan has been actively developing its wheat exports in the Central Asian countries, which is a traditional export market for Kazakh millers, and is now experiencing competition because active grain supplies have led to the development of millers in these countries. As a result, Tajikistan has reduced import duties on wheat and has built its own mills, and Uzbekistan has introduced a 10% excise tax on all imported flour beginning in July 1, 2010. According to the Union of Grain Processors and Bakers of Kazakhstan (Agro-industrial complex development program for 2010-2014, 2010), in the next three to five years, Kazakhstan may decrease export of flour to these countries by at least 50%. The resulting reduction in the total volume of grain exports, as much as1.0–1.5 million tons, will pressurize the domestic market. This situation is complicated by the high priority on grain export in the Central Asian countries.

However, India and China remain promising markets. The population of these two countries will increase by one billion people over the next ten years, with no capability for a corresponding increase in food production. All their agricultural land has been fully developed, and urbanization in these areas has decreased farmlands. Along with these countries' population growth, the structure of food is shifting toward higher consumption of grain products (Borlaug and Dowswell, 2003).

Flour exportation is much more profitable than wheat exportation. Processing grain into flour adds a cost of approximately $50 per ton. This figure comprises mill employees' salaries, transport, other organizations engaged in the storage and shipment of flour, energy for flour production and delivery (electricity, gasoline, diesel, fuel), and other costs. Flour processing creates new jobs, guarantees sales to grain processors, and increases food supply within the country as roughly25% of processed grain remains in the country in the form of bran.

The milling industry plans to increase the annual volume of flour exports to 2.5–3.0 million tons. If the industry receives systematic

government support, Kazakhstan can export as much as 4–4.5 million tons of flour per year.

One important competitive factor is Kazakh flour's high baking qualities. Its high gluten content is the main reason for its great demand by importing countries, which use it largely for flat breads (tortillas). Historically, Kazakh mills have always produced high-quality flour. To meet some consumers' requirements, a number of factories have started producing flour of superior quality, known as "Extra" (or "Elite"). The current trend is for flour production facilities to develop more flour classes.

Qualitative indicators of flour for export are stipulated in the export contracts. Therefore, exporters do not set their standards but rather follow their customers' requirements—one reason for such active export of Kazakh flour. Milling companies are interested in expanding the volume of exports. Therefore, it is understandable that they are working hard to increase the sales volume of flour produced for both domestic and foreign markets. This strategy demands quality improvement and development of new varieties.

However, we realize that only a public–private partnership can expand flour exports. No company alone has the capacity to seek new markets, build transport corridors, and perform a variety of other necessary tasks. The flour export business requires the government's systematic assistance.

The Union of Grain Processors and Bakers of Kazakhstan is currently working closely with the National Agency for Export and Investment (Kaznex Invest) JSC to implement this plan.

To promote the export of flour, the Union of Grain Processors and Bakers of Kazakhstan have developed the KAZNAN unified national brand that Kaznex Invest JSC helps domestic manufacturers to promote in foreign markets. In 2011, the importance of flour exports was marked at the state level. According to the government's instructions, the Union of Grain Processors and Bakers of Kazakhstan have submitted the necessary papers and calculations to the Ministry of Agriculture to start subsidizing flour exports (Arbuzova, 2010).

Kazakhstan is now actively seeking new markets for flour products beyond the current main consumers of flour: Central Asian countries such as Uzbekistan, Tajikistan, Kyrgyzstan, and Afghanistan. Half the flat bread produced in Tajikistan and a fifth of that produced in Uzbekistanis made of Kazakh flour. In 2010, Kazakhstan opened a new market for export, the United Arab Emirates, and exported roughly 400tons of flour to the UAE in the first year alone. Kazakhstan has also resumed shipments to Korea.

Kazakhstan is planning to develop exports to Iran, India, and China. The latter two are of strategic interest because in the next decade, the population of these countries will increase significantly, although their potential for increasing crop production is extremely limited. The population of these countries has also recently changed their food structures toward increased grain product consumption, further increasing the demand. North Africa and Southeast Asia also present potential markets.

The market determines the milling industry's stability and market efficiency, but milling encounters two problems relating to raw materials: lack of transparency (the balance of grains) and instability of the grain market (pricing).

The balance of grains problem has persisted for the last few years. The current stock

**Table 1.** Comparison of quality of Kazakh, U.S., and Canadian varieties of wheat

| Indicators | U.S.: hard | Kazakh: winter one | Canadian: soft |
|---|---|---|---|
| Nature, kg/hl | 74.6 | 75.0 | 76.0 |
| Moisture,% | 13.5 | 14.0 | 14.5 |
| Admixture% not more: | | | |
| Grain | 5 | 3 | 3 |
| Other | 1 | 1 | 0,75 |
| Composition ofProtein | 12–13 | 13 | 13.5 |
| Gluten | 24 | 24 | 25 |
| Average price USD/FOB | 190–195 | 182–185 | 225–230 |

and grain "stock reporting" system is not perfect and cannot serve as a tool for strategic or tactical business planning. Therefore, it is necessary to have a balance of grains report for which the producers are encouraged to present accurate data on seed and fodder grains as well as data on the state reserve. With such accurate data, the balance will be presented on only the actual availability, and it will be judged on the actual number of seeds intended for processing for the domestic market, as well as the availability of grain with export potential in the form of raw grain or grain processed into flour. According to the Union of Grain Processors and Bakers, the annual capacity of flour mills is estimated at 9 million tons, with domestic demand of 3.2 million tons. The Agency for Statistics estimates the figure at 8.7 million tons. Including the export volume of processed flour, Kazakh enterprises processed roughly 5.2 million tons of wheat in 2009, most of which was exported as processed, high-value-added goods. However, the enterprises are producing at an average capacity of only 40–55%. Clearly, any restriction on export causes economic distress because it leads to massive downtime of mills and other negative consequences (Arbuzova, 2010).

To solve this problem, Kazakhstan must develop the industry's export potential through public–private partnership, including the development of new markets. Korea, Thailand, Japan, Vietnam, Bangladesh, North Africa, and the Persian Gulf present potential importing markets for Kazakh flour.

**Table 2.** Export prices of cereals and flour in dollars per ton, including VAT 0% (Franco-border) as of May 21, 2012

| Name of station | 3rd class wheat Gluten | | 4th class | 5th class | Barley | Terms of |
|---|---|---|---|---|---|---|
| | 23–24% Sell | 27–30% Sell | Wheat - Sell | Wheat Sell | 2nd class Sell | delivery |
| Petropavlovsk (South-Ural Rail way) | 173 | 189 | 145 | 136 | 151 | DAP |
| Sary-Agash | 200 | 223 | 168 | 156 | 181 | DAP |
| Lugovaya | 198 | 210 | 164 | 147 | 176 | DAP |
| Tobol | 188 | 200 | 143 | 134 | 151 | DAP |
| Port Aktau | 227 | 250 | 206 | 188 | 226 | FOB |
| Bekabad | 216 | 238 | 176 | 161 | - | CPT |
| Hairaton | 256 | 255 | 214 | 196 | 241 | CPT |
| Kudukli | 257 | 264 | 210 | 198 | - | CPT |
| Sarakhs | 261 | 266 | 224 | 206 | 256 | CPT |

The grain market's instability strongly affects the production and export of flour, a problem exhibited in marketing year 2008–2009. Executing a flour contract, as opposed to a grain contract, is very time consuming. To ship flour, the flour mill must obtain the grain, process it, and finally ship it to the customer. If the grain price fluctuates during this time, especially if it decreases, this contract becomes problematic. Therefore, flour mills must allocate not less than 1.0–1.5 million tons of wheat.

The current capacity of flour mills is 8,423.6 thousand tons per year in Kazakhstan. Because the existing mills' capacity is almost three times higher than the domestic demand for flour, they can export a large amount. Russian producers believe that only logistics prevents Kazakh producers from increasing shipments to the importing regions of Russia. For example, the Union of Altai Grain Processors, located in one of Russia's largest flour producing regions, has predicted a significant reduction in the prices of grain and flour in Siberia in early 2012 due to Kazakhstan's expected large-scale supply of these products. However, the Russian Federation's Ministry of Agriculture experts believe that the Russian market is not threatened because logistics constraints will prevent Kazakhstan from increasing its grain and flour exports.

In December 2011, Viktor Fomin, chief of the Altai Union Grain Processors, said, "Kazakhstan today lacks free rail cars. They are engaged in the inland transportation of grains to the

elevators. But beginning in early 2012, the rail cars will be available, and the grain for flour can pour into the Russian market, primarily into the Siberian Federal District" (Sapozhkov, 2011). Fomin thus predicted that the appearance of Kazakh products on the Russian domestic market would trigger a major decline in grain and flour prices, significantly decreasing the demand for Altai grain that costs more than that from Kazakhstan.

Kazakhstan's subsidizing grain and flour exports at $40 per ton may further weaken the position of the Altai producers' price. The Altai grain processors also recognize the possibility that they will have to forego positions in Central Asia, where Kazakh producers also sell their products.

In general, the Kazakh enterprises are not yet significantly present in the Russian market. In 2011, Kazakhstan's flour exports totaled 2.23 million tons, of which roughly 800 tons went to Russia. However, Kazakh producers are aggressively seeking ways to increase Kazakhstan's presence in the Russian market.

Establishment of a powerful transport and logistics international company proposed by the Kazakh President Nursultan Nazarbayev may strengthen the competitiveness of Kazakh flour in the world markets.

Currently, Kazakhstan's flour production substantially covers its own needs, as the rapid development of mill production in the 1990s has demonstrated the efficiency of the decision made at that time. Kazakhstan leads the world in flour production per capita primarily owing to the developed processing system (grain into flour). However, the main market for Kazakh flour has traditionally emerged from Central Asia—Uzbekistan, Tajikistan, and Turkmenistan. Moreover, owing to the simplicity of the process, these countries began to start production and now primarily use domestically grown grain. However, owing to their grain's poor quality, they will continue to purchase high-quality Kazakh grain, although their volumes of flour acquisition will decrease.

According to foreign economic activity (FEA) indicators, in 2010, Kazakhstan exported 155,439.8 tons of flour in January and 184,943.7 tons in February. These numbers decreased in 2011, with only 110,466.1 tons of flour exported in January and 108,851.1 tons in February. The year-over-year decreases for January and February were 29% and 41%, respectively (Shaimerdenova, 2011).

Deep processing is an alternative to the primary processing of corn and can not only significantly enhance the range of products but also considerably increase the price and hence profitability of the processed products. Deep processed products include amino acids, starch (modified starches, sweeteners, hydrolysates, organic acids, polymers, ethanol).

Recently, many countries have mastered the deep grain process, with the main producers of starch and starch products being the U.S., Canada, Germany, France, Denmark, Holland, Japan, and Thailand. Overall, these countries produce 20 kg of starch per capita, including sugary products from starch, and the U.S. production exceeds 50 kg per capita.

Russian companies were the first to recognize the importance of developing deep processing of grain in the CIS. Thus, the Russian Union for flour and cereal companies estimates that the volume of deep processed grain with the application of innovative technologies from 2012 to 2020 will increase 50-fold, from 51 tons to 2.55 million tons per year. To achieve this level of production, companies plan the construction of 20 deep processing plants in the regions with excessive production of wheat, primarily Siberia, the North Caucasus, and Central Chernozem zones. The new technologies applied will determine the level of export.

## CONCLUSIONS

On the basis of the Russian Union's prediction, Kazakhstan can similarly increase its export potential for deep processed products. These suggestions comprise the report's contribution to both the industry literature and Kazakhstan's agricultural economic policies.

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