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PROBLEMS OF DESTABILISATION OF THE CEREAL MARKET IN POLAND RELATED TO THE WAR SITUATION IN UKRAINE

PROBLEMATYKA DESTABILIZACJI RYNKU ZBÓŻ W POLSCE ZWIĄZANEJ Z SYTUACJĄ WOJNY NA UKRAINIE

Summary: The aim of the study was to assess the current situation and prospects for counteracting the destabilisation of the cereal market in Poland as a result of importing large quantities of cereals from Ukraine. The assessment indicates a high risk of a decrease in profitability of grain production in Poland and market destabilisation, which may threaten food security in Poland. The resulting additional surplus of domestic production raised by imported grain significantly depresses the price and causes concern among farmers. Possible solutions to this problem include strict control of the quantity of imported grain from Ukraine and control of its re-export to destination countries such as the North African region. This requires infrastructural investments to improve transport and re-export through the port of Gdansk and the application of solutions already implemented by Romania, i.e. double licensing of grain quantities. In the current situation, actions aimed at increasing domestic grain consumption by increasing the stock of poultry and pigs are also beneficial, which will effectively remove the oversupply of grain from the market.

Keywords: cereal market, production profitability, cereal imports, cereal grain

Streszczenie: Celem pracy była ocena obecnej sytuacji i perspektywy przeciwdziałania destabilizacji rynku zbóż w Polsce na skutek importu znacznej ilości zboża z Ukrainy. Dokonana ocena wskazuje na wysokie ryzyko spadku opłacalności produkcji zbóż w Polsce oraz destabilizacji rynku co może zagrozić bezpieczeństwu żywnościowemu w Polsce. Powstająca dodatkowa nadwyżka ziarna krajowej produkcji podniesiona dodatkowo o importowane ziarno znacząco obniża cenę i powoduje obawy rolników. Możliwe rozwiązania tego problemu obejmują ścisłą kontrolę ilości sprowadzanego ziarna z Ukrainy i kontrolę jego reeksportu do krajów przeznaczenia jakim jest region Afryki Północnej. Konieczne do tego są inwestycje infrastrukturalne usprawniające przewóz i reeksport przez port w Gdańsku oraz zastosowanie rozwiązań wdrożonych już przez Rumunię, czyli podwójnego licencjonowania ilości zboża. W obecnej sytuacji korzystne są także działania zmierzające do zwiększenia zużycia krajowego zboża poprzez zwiększanie pogłowia drobiu oraz trzody chlewnej co w efektywny sposób będzie zdejmowało z rynku nadpodaż ziarna.

Słowa kluczowe: rynek zbóż, opłacalność produkcji, import zbóż, ziarno zbóż

Introduction

Before the war, two-thirds of Ukrainian exports were realised through ports on the Black Sea and the Sea of Azov. In terms of agricultural production, this figure was over 90%. Ukraine is one of the world leaders in cereal exports, especially maize and wheat, as well as barley and rapeseed. Important for the country was the annual sale of cereal grains to dawn markets, valued at US\$12.3 million [3]. The aggression launched by Russia resulted in the occupation of some Ukrainian ports and the blockade of other ports, which were the main trade route for the export of a significant part of grain production (European Council). This has prompted the need to find alternative export routes. To facilitate the trade, in May 2022, the EU established the so-called solidarity corridors, in which Poland and Romania played

a central role. The importance of Ukrainian ports on the Danube and transit from them via Romania became crucial (the port of Constanta handled in 2022. 8.2 million tonnes of Ukrainian grain, which accounted for approximately 21% of Ukraine's total exports of this product, estimated by Kiev at 38.3 million tonnes), with the other alternative export route being the overland route via Poland. The route through Poland was designed to deliver Ukrainian grain to the Gdansk terminal. The mentioned terminal plays an important role in the export of grain from Poland (the handling capacity of this terminal is about 5 million tonnes of grain per year), and now also in the possible transit of Ukrainian grain to European and non-European countries (mainly to North African countries). The unblocking of the corridor and efficient export of Ukrainian grain from Poland is a key issue for Polish

grain producers. Experts in the grain market, including feed, say that in the absence of any prospect of a rapid end to hostilities in Ukraine and the restoration of Ukrainian grain exports from the Black Sea ports, the need for the development of land transport of agricultural commodities through EU countries will become stronger. The very situation associated with the possibility of a significant proportion of grain transported from the Polish-Ukrainian border remaining will have a significant impact on the development of grain purchase prices on the Polish market. In 2021, grain imports from Ukraine to Poland amounted to 0.06 million tonnes, while after the situation with the port blockade, they already amounted to 2.45 million tonnes [4]. The additional oversupply of grain on the Polish market, where domestic production also has the oversupply which we have to export, is associated with a deep market destabilisation and social unrest.

The situation regarding the blockade of cereal exports is also taking its toll on global markets and causing significant price fluctuations, especially for wheat. After almost 1.5 years of turmoil in the grain market, the price of wheat on the MATIF exchange has returned to the level of January 2022, i.e. before the outbreak of the war in Ukraine. In January 2022, the wheat price on the MATIF exchange averaged €226/tonne; the highest price had to be paid in mid-May 2022 was equal to approximately €366/tonne of wheat, i.e. higher by more than 38%. The scale of fluctuations in the price of wheat on the European market, also on the global market, was difficult to predict. Under the described conditions, food and feed wheat processors were concerned about further increases in the post-harvest period, causing the purchase price to keep climbing until last November. At present, the situation is stabilising somewhat, but price fluctuations, which are also linked to global turbulence, continue to cause significant price fluctuations. As recently as in July, wheat was fetching € 264.75 per tonne on the Paris MATIF exchange, whereas on 8 September it was fetching € 214.75 per tonne on the MATIF exchange, down by almost 19%. In July, wheat was traded at US\$ 279.34 per tonne on the CBOT in Chicago, but at the beginning of September was traded at US\$ 210.35, down by almost 25%. It is well known that grain prices in Poland are highly dependent on prices on world stock exchanges. This is because we have an overproduction of cereals in Poland and we need to export this surplus. And exports are linked to prices on global markets. The Grain and Feed Board predicts that Poland will harvest around 34 million tonnes of grain this season, of which domestic consumption will manage 24-26 million tonnes of both consumption and feed grain. A surplus of about 10 million tonnes should be exported, with another 4-5 million tonnes of grain from the previous harvest remaining in storage; a total of about 15 million tonnes. The additional surplus of cereal grain, especially wheat and maize, is putting strong downward pressure on prices in the domestic market. Representatives of Polish grain

producers are demanding from the state authorities an urgent extension of the logistic infrastructure (transport, warehouses, port wharves), which would improve grain exports – both of their own grain surplus, but also grain transit from Ukraine. The lack of interest so far in developing this infrastructure was due to the fact that most of the country's grain surplus was exported to Western European countries by land. As a result, 5-6 million tonnes of grain could be exported and this allowed the supply-demand balance, and thus prices, to be maintained on the domestic market. The authorities therefore saw no need to expand this infrastructure, and grain producers have so far not been interested in lobbying for the expansion of the road infrastructure and port handling facilities. The current uncertain situation and the failure to foresee a possible end to the conflict in Ukraine means that there is no clear decision to start investing in infrastructure expansion, especially as this would have to be done from the state budget without assistance from the European Union. In addition, looking from a long-term perspective, investment in infrastructure requires a significant amount of money and implementation time. It is also doubtful that once the transport of grain from Ukraine via the former Black Sea route is made possible, transit through Poland and the Baltic Sea would continue. Russia's temporary agreement and commitment to transport grain via the Black Sea improved the situation for a while, but it later withdrew from the grain agreement and destroyed some of the infrastructure (warehouses, handling facilities) for grain exports in Ukrainian ports. Rebuilding this infrastructure will also take time, indicating that it is necessary to seek a consensus and solution to the problem in both the short and long term.

Ukraine has stepped up its efforts in preparing alternative export routes, including overland via EU countries. However, the lack of regulation on the part of the EU authorities to safeguard the demand-supply balance and the associated profitability of production in the internal grain markets of the border countries is causing a number of additional tensions. The problem of destabilisation also affects other countries. Hungary and Romania, as countries bordering Ukraine, have the same problem of the increased exports of Ukrainian grain to their domestic markets. In the case of Hungary, imports in 2021 were equal to 0.02 million tonnes and in 2022 – 0.49 million tonnes – an increase of 24.5 times. A similar problem is faced by Romania where the scale of the increase in imports is even greater – 0.002m tonnes in 2021 to 1.3m tonnes in 2022 – an increase by 650 times. Some countries, such as Greece, have seen their imports fall by up to nine times due to the port blockade. Although such a situation is causing global turmoil and problems, there is still no will to solve it on the part of decision-makers. In particular, the European Commission is not looking for an effective solution to the overland transport of Ukrainian grain to EU countries and then – possibly - to African countries: lack of infrastructure, high

transport and storage costs and an overabundance of grain in the EU. Ukraine's neighbouring countries have announced that they will block grain imports from Ukraine if the EC does not guarantee that the grain will only transit through their territory to Baltic, Mediterranean or North Sea ports. In Poland, the above declarations are fostered by the disastrous situation on the grain market in Poland: it has been a long time since the purchase price of wheat offered by purchasers was so low. In view of this problem, the only solution in this situation seemed to be an extension of the ban on grain imports to Poland, which is also being considered by other countries struggling with intensive grain imports from Ukraine. At the same time, intensive attempts are being made to solve the problem of Ukrainian grain exports via transport routes through the Black Sea. Among others, China, India and Turkey, as well as southern European countries (Italy, Spain) are interested in importing Ukrainian grain. Any attempts to positively solve this problem are being blocked by Russia, which is demanding the early withdrawal of economic sanctions imposed on the country.

As grain is a food commodity of strategic importance to the people of many countries, especially North Africa, many countries are looking for individual strategies to address the possibility of importing grain from Ukraine. North African countries in particular need significant imports of wheat from Ukraine. They fear internal conflicts due to the lack of bread, and it was the lack of bread that was the spark that ignited the revolutionary changes in the North African countries a few years ago. Nowadays, too, grain can be an important impetus for change even of a political nature, as evidenced by the unexpected resignation of the Prime Minister in Tunisia due to a shortage of bread, or rather a shortage of wheat to bake it. The consequences of the Ukrainian grain blockade so far can also be seen in other countries in North Africa and the Middle East [9]. This is especially true for countries that are highly dependent on grain imports from Ukraine, such as Somalia and Benin, which has 100 per cent of its wheat from Ukraine, and Egypt with 82 per cent. In view of this, in order to prevent destabilisation of the region, Israeli ships have appeared in the Black Sea and are ready, despite Russian threats, to take Ukrainian grain from the Danube ports of Romania. Cover for the mentioned ships is provided by US military aircraft. The return of Ukraine to effective food exports is very important not only for EU countries, but also for third countries. For the EU it is a fundamental security factor, but also on Ukraine's role in food supplies, for many countries which ensures relative political stability in the world [7].

Another problem facing Polish cereal producers, which is linked to the war situation in Ukraine, is the rising cost of fertilisers. Russia plays a key role in the fertiliser trade. Almost 17% of Russia's total fertiliser exports go to EU countries. As a result of the economic sanctions imposed on Russia, the loss

of 17% of the existing supply of fertilisers on the market has resulted in a significant increase in their price by the cost of grain production. Thus, a situation has been created in which the costs of cereal production increase as a result of the higher price of fertilisers, while the purchase price of grain decreases due to oversupply on the internal market, and the situation is further aggravated by grain imported from Ukraine.

Possibility of stabilising grain prices on the Polish market

Domestic cereal grain production, as in other European Union countries, is mainly used for feed purposes. On average, approximately 17 million tonnes of cereals were used for feed purposes in the 2017/2018- 2019/2020 seasons, or 62% of total domestic consumption. Wheat, maize and barley were mainly used for feed, with 20.8; 17.6 and 14.7% of the total cereals used for feed, respectively. It should also be noted that in the case of maize and barley, about 70% of the national harvest was used for feed, and in the case of wheat, 39% [1]. Wheat is used to a lesser extent for fodder purposes due to its extensive food use for baking bread, rolls and cakes. In addition, it has a higher price, which is why triticale is used more for fodder. Cereal grains are the basic raw material for the production of feed used in the feeding of various livestock. They account for 60 to 80 % of the raw material composition of compound feeds, which depends on their current price and quality. This high proportion in the feed is due to their high nutrient content, especially starch, which is a very good source of energy. In addition, cereal grain also contains a certain amount of protein. According to data from the Central Statistical Office [10], in 2021 the total feed production was 10, 598 million tonnes. A decisive share, 60%, was feed mixes for poultry, 24% for pigs. These two branches of livestock production - poultry production related to the production of eggs and poultry meat and pig farming are among the most grain-intensive. The production of feed for these groups of animals requires a constant supply of grain raw materials, which form the basis (up to 70% of the raw material composition) of the feed mixture [11]. The increase in poultry production has led to changes in the demand for the species structure of grain. Species that are less useful in the production of feed for this group of animals have seen a decrease in cultivated area. In the structure of industrial feed production, poultry feeds have the largest share, which is related to the significant population of this group of livestock. The share of poultry mixtures in the overall production of industrial feeds for livestock varies from year to year, but is at the level of 58-66% [8]. The significant poultry population in Poland is conducive to the significant use of domestic grain production has a positive effect on the stabilisation of its prices. In addition, the significant export of broiler chicken meat, with Poland being the leading producer in the European Union of this meat, positively

affects the economy. The increase in poultry production results in significant stabilisation and has prevented the collapse of the cereal market as a result of the reduction in the pig population in Poland. Intensive and large-scale poultry production consumes significant amounts of domestic grain production for feed for this group of animals [8]. The purchase costs and the relation of its price to the price obtained per kg of livestock have a significant share in the overall costs, and are therefore the main element of the profitability calculation of this branch of production, while they may be subject to direct control by the poultry livestock producer [5]. Adequate supply of impact cereals and their favourable price have influenced increasing poultry meat production over the years. However, large-scale poultry production requires the consumption of significant amounts of energy especially for the process of artificial egg incubation, as well as heating buildings in autumn, winter and spring and cooling in summer. Increased energy prices have resulted in increased production costs and an apparent reduction in the poultry population relative to 2020 [10]. This fact will further reduce cereal consumption and has exacerbated somewhat the problems of the cereal market. Therefore, in order to maintain stability on the cereal market, it is important to provide state support to poultry breeders so that the stocking of animals is maintained at the current level, which should prevent the negative situation on the cereal market from worsening. In addition, it is also necessary to support pig breeders in order to increase the number of pigs, which should also increase the consumption of cereals for feed and have a positive impact on the stabilisation of the cereal market. The need to support pig farmers was also recognised by the Ministry of Agriculture and Rural Development, which supported this group of agricultural producers in 2022. Agricultural producers at risk of losing their financial liquidity due to restrictions on the agricultural market caused by the war in Ukraine [6] could apply for funding. The development of pig farming is important from the point of view of stabilising the cereal market, the more so is the prospect of its development, as less pork is produced in Poland than the market demand shows. The meat shortage is supplemented by imports from other EU countries. In 2021, pork imports reached 574.365 tonnes and were 4 per cent higher than in the same period in 2020. This indicates that there is an opportunity for domestic pork production to expand, which will increase the consumption of grains from domestic production. In particular, this is an opportunity to reduce the amount of grain from smallholder farms that grow cereals. The maintenance of pigs by these farms, which will be used for feed for them, reduces the amount of grain on the market balancing the supply and demand situation.

The European Union policy imposes an obligation on member states to use raw materials from renewable sources for energy purposes. Under Polish climatic and economic conditions, raw

materials of plant origin are becoming more important. In this context, cereal grain that does not meet the quality requirements for milling and bakery and feed processing can be used for energy purposes. The grain is a valuable raw material for bioethanol production [2]. It is extracted from agricultural renewable feedstocks and then used as a fuel additive. Cereal grain is a very efficient feedstock for bioethanol production. However, different cereal species have different grain energy yields. In the context of Ukraine's significant imports of two cereal species-wheat and maize-these have the highest bioethanol yields.

In addition to the aforementioned solutions to the surplus of grain on the Polish market and the destabilisation of grain prices associated with grain imports from Ukraine, the fall in grain prices and farmers' fears about the profitability of grain production are creating pressure to seek ad hoc solutions, isolating the domestic market within the Community framework, which further disrupts the flow of goods within the single market and increases the risk of economic activity on the domestic market. Spotty road and rail investments at border crossings are not enough. What is needed is cooperation, a long-term strategy and decision-making. Otherwise, Poland will cease to be competitive on world markets in an area that is today the engine of our economic development – the export of agri-food goods. One of the most important investments is to be an agri-food terminal in the port of Gdansk. It is expected to improve the export of agri-food goods by sea, but also to be an effective solution to the problem of grain imports from Ukraine to Poland and its re-export to North African countries. The dual licensing procedure currently introduced by Romania may also be a beneficial solution. This procedure consists of a bilateral licence for a certain amount of grain from Ukraine and a second licence from Romania for the same amount of grain as the Ukrainian licence. This is a much more favourable solution than a total ban on grain imports, offering the chance to control the internal grain market and maintain good bilateral relations between the countries.

Conclusions

The armed conflict between Russia and Ukraine has destabilised the grain market in Poland, which is linked to the closure of the current export routes for Ukrainian grain via the Black Sea to the countries in the North Africa. The alternative route goes through Poland and onward transportation from the port of Gdansk. Investment in infrastructure and streamlining the re-export of Ukrainian grain with a simultaneous system of double licensing of the quantities imported to Poland seems to be the best solution in the current situation, when there is no possibility of resolving the conflict and unblocking the Black Sea ports in the short term. At the same time, in order to protect

Polish farmers from low grain prices and destabilisation of the market, actions should be taken to stimulate animal production, mainly of poultry and pigs, which should ensure stabilisation of the grain market due to the removal of a significant surplus of grain. An increase in the consumption of cereal grain, especially of grain that does not meet the quality requirements, may also be supported by the production of biofuels; in an energy crisis, they may further improve the situation in this respect.

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