

Торайғыров университетінің
ҒЫЛЫМИ ЖУРНАЛЫ
НАУЧНЫЙ ЖУРНАЛ
Торайғыров университета

ТОРАЙҒЫРОВ УНИВЕРСИТЕТІНІҢ ХАБАРШЫСЫ

Экономикалық сериясы
1997 жылдан бастап шығады



ВЕСТНИК ТОРАЙҒЫРОВ УНИВЕРСИТЕТА

Экономическая серия
Издается с 1997 года

ISSN 2710-3552

№ 3 (2026)

Павлодар

Экономическая серия
выходит 4 раза в год

о постановке на переучет периодического печатного издания,
информационного агентства и сетевого издания
№ KZ93VPY00029686

публикация материалов в области экономики, управления,
финансов, бухгалтерского учета и аудита

<https://doi.org/10.48081/BTOUEcon3.2026/ISSN2710-3552>

Гребнев Л. С., д.э.н., профессор
Шеримова Н. М., доктор PhD

Шмарловская Г. А., д.э.н., профессор (Беларусь);
 Кунязов Е. К., доктор PhD, доцент;
 Алмаз Толымбек, доктор PhD, профессор (США);
 Мукина Г. С., доктор PhD, ассоц. профессор, доцент;
 Дугалова Г. Н. д.э.н., профессор
 Алтайбаева Ж. К., к.э.н.
 Мусина А. Ж., к.э.н., ассоц. профессор, доцент;
 Титков А. А., к.э.н., доцент;
 Искакова З. С. технический редактор.

© Торайгыров университет

<https://doi.org/10.48081/BTOUEcon3.2026/183-193>

***Y. A. Dossymzhanov**

Toraighyrov University

Republic of Kazakhstan, Pavlodar.

ORCID: <https://orcid.org/0009-0006-6110-9597>

*e-mail: y.dossymzhanov@gmail.com

EXTERNAL ECONOMIC SHOCKS AND FOOD PRICE DYNAMICS IN KAZAKHSTAN

Official statistics from the Bureau of National Statistics of the Republic of Kazakhstan formed the basis of this study. The research focuses on food price affordability in Kazakhstan during periods of external economic shocks. Price indices for the 2015 and 2020 crises and average prices for 19 socially important food products from 2022 to 2026 were examined. Food price dynamics were examined by comparing the effects of the national currency devaluation, the COVID-19 pandemic, and geopolitical instability. Changes in the prices of individual food products were analyzed, and price growth rates were calculated for the main commodity groups. The study identified the product categories most sensitive to external factors and revealed differences in price dynamics depending on the nature of the crisis. The findings indicate that currency, logistical, and geopolitical shocks accelerate food inflation and affect different groups of socially important food products unevenly. The highest price increases were observed for vegetables, dairy products, and meat products, while several non-perishable commodities demonstrated price stabilization following a period of sharp growth. The results may contribute to the evaluation of the domestic food market and support decision-making on food security in Kazakhstan.

Keywords: food security, external economic factors, food prices, socially significant food products, price index, average prices.

Introduction

Food security is one of the fundamental prerequisites for sustainable socio-economic development and national security. For Kazakhstan, this issue is of particular importance, as the domestic food market is influenced not only by

internal factors but also by external economic conditions. Fluctuations in global food prices, exchange rate volatility, disruptions in international supply chains, and geopolitical instability affect food prices and, consequently, the economic accessibility of food for the population [1, 2].

Over the past decade, Kazakhstan has experienced several external economic shocks that have significantly affected its food market. The depreciation of the national currency in 2015 led to an increase in the cost of imported food products and production inputs [3]. During the COVID-19 pandemic, disruptions in international supply chains negatively affected the stability of food supply and national food security [4]. In 2022, additional geopolitical developments contributed to food shortages in international markets and accelerated food inflation, further increasing pressure on domestic food prices [5].

Despite the extensive body of literature on food security, the impact of external economic factors has primarily been examined through individual macroeconomic indicators or within the context of specific crises. Comparative assessments of different types of external shocks and their effects on the price accessibility of socially significant food products remain limited [1].

Food price dynamics constitute one of the key indicators for evaluating the influence of external factors on food security. Rising food prices directly reduce the economic accessibility of food and may undermine food security even when domestic production and food availability remain sufficient. Therefore, analysing price changes for socially significant food products provides valuable insights into the resilience of the national food system.

Unlike previous studies, this study compares the impact of four external crises on food prices in Kazakhstan using both consumer price indices and average prices of socially significant food products.

The aim of this study is to examine how external economic factors affect food security in Kazakhstan by analysing consumer price indices and price changes for socially significant food products. To achieve this aim, the study:

- examines changes in consumer price indices during periods of external economic shocks;
- compares price changes across socially significant food products;
- identifies the food products most affected by external economic shocks;
- evaluates how changes in food prices influence the economic accessibility of food in Kazakhstan.

Materials and Methods

The analysis uses official data from the Bureau of National Statistics of the Republic of Kazakhstan. Consumer price indices and average prices for 19 socially

significant food products were examined to evaluate changes in food security under external economic shocks.

The analysis covers several periods during which Kazakhstan's economy experienced major external shocks. These include the depreciation of the national currency in 2015, the COVID-19 pandemic in 2020, and the geopolitical crisis of 2022 [6]. For the first two periods, official consumer price index data were used because consistent statistics on average prices for socially significant food products were not available for all years. Therefore, the impact of the 2022 crisis was assessed by comparing prices in 2022 and 2026. This comparison showed how the prices of individual food products changed.

To keep the data comparable, the analysis included only the original 19 socially significant food products that were reported in official statistics throughout the study period. Although the official list of socially significant food products in Kazakhstan was subsequently expanded, the use of a stable commodity basket ensured the consistency of comparisons across different periods and eliminated potential biases associated with changes in the composition of the official list.

Comparative and statistical analysis methods were employed in the study. At the first stage, consumer price indices across different crisis periods were compared to identify general trends in food price dynamics. At the second stage, a comparative analysis of average prices for socially significant food products was conducted. For each commodity, the rate of price change was calculated using the following formula:

$$TT = \frac{P_t - P_0}{P_0} \times 100$$

where:

TT – price change rate (%);

P_t – price at the end of the study period (2026);

P_0 – price at the beginning of the study period (2022).

To identify general patterns, the socially significant food products were classified into several commodity groups: cereals and cereals products, meat products, dairy products, vegetables, and other food products. The average price change was calculated for each group, enabling a comparison of their sensitivity to external economic shocks.

The findings were subsequently used to assess the impact of external economic factors on the price accessibility of food as one of the key dimensions of food security.

Results and Discussion

The study includes two sets of data. Consumer price indices were used to analyse the 2015 and 2020 crises because official statistics do not report average prices for these years. For 2022–2026, average prices for 19 socially significant food products were analysed. This made it possible to compare changes in the prices of individual food products.

Official statistical data indicate that external crises were accompanied by rising food prices in Kazakhstan, while the influence of global food prices on domestic food inflation intensified during periods of international instability [2].

Consumer price indices for socially significant food products increased during both crisis periods. However, the pattern of price changes was different in each period. For example, the index increased to 109.0 % in 2015 and to 111.0 % in 2020, suggesting that inflationary pressure was greater during the COVID-19 pandemic [7]. Overall, food prices increased by 9.0 % in 2015 compared with 11.0 % in 2020 [7].

The increase in food prices in 2015 was primarily driven by the depreciation of the Kazakh tenge following the decline in global oil prices and the transition to a floating exchange rate regime. The largest price increases were recorded for sunflower oil (138.5 %), sugar (123.1 %), eggs (122.5 %), buckwheat (120.9 %), and tea (119.6 %). These products depend heavily on imports or imported production inputs. At the same time, prices for some vegetables fell. Potato prices decreased to 84.0% of their initial level, while onion prices fell to 83.1 %. This decline was mainly associated with seasonal factors and domestic production [7].

In 2020, the primary driver of food price inflation was the COVID-19 pandemic, which caused disruptions in international logistics, interruptions in supply chains, and panic buying. The largest price increases were recorded for sunflower oil (136.8 %), sugar (133.4 %), buckwheat (128.1 %), eggs (119.6 %), and potatoes (116.0 %) [7]. Unlike in 2015, inflationary pressure extended beyond import-dependent commodities to include essential staple foods, indicating a broader and more systemic price shock.

The consequences of external shocks can also be assessed through changes in the average prices of socially significant food products during 2022–2026. Over this period, the prices of most food commodities increased substantially. The highest growth was observed for animal-based products. The average retail price of beef increased from 2,304 to 3,777 KZT per kilogram, chicken meat from 1,232 to 1,752 KZT per kilogram, milk from 335 to 660 KZT per litre, and butter from 3,518 to 5,582 KZT per kilogram [7].

Significant price increases were also recorded for vegetables. The average price of potatoes rose from 153 to 280 KZT per kilogram, carrots from 142 to

277 KZT, onions from 125 to 184 KZT, and cabbage from 100 to 175 KZT per kilogram [7]. These findings indicate that price growth affected not only livestock products but also essential food commodities consumed on a daily basis.

Nevertheless, price dynamics varied across commodity groups. Following the sharp price increases observed in 2022, several products experienced relative price stabilisation. For example, the average price of sunflower oil declined from 904 to 891 KZT per litre, while the price of granulated sugar decreased from 478 to 439 KZT per kilogram [7]. This trend may be associated with the gradual recovery of supply chains and the implementation of government measures aimed at stabilising the domestic food market.

Table 1 – Comparative price table for 19 socially significant food products

Product	2022	2026	Change, %
Rice	346	532	+53,8
Buckwheat	511	409	−20,0
Flour	243	252	+3,7
Bread	194	229	+18,0
Pasta	299	504	+68,6
Beef	2304	3777	+63,9
Chicken	1232	1752	+42,2
Milk	335	660	+97,0
Kefir	358	606	+69,3
Eggs	476	575	+20,8
Sunflower oil	904	891	−1,4
Butter	3518	5582	+58,7
Cabbage	100	175	+75,0
Onion	125	184	+47,2
Carrot	142	277	+95,1
Potato	153	280	+83,0
Sugar	478	439	−8,2
Salt	64	99	+54,7
Cottage cheese	1877	2457	+30,9
Source: https://stat.gov.kz/ru			

* Compiled by the author

Note: The table lists prices in tenge per kg.

The analysis of the data presented in Table 1 shows that the intensity of price growth varies considerably across individual food products. To summarize

the results and identify the most vulnerable segments of the food market, the average price growth rates were calculated for the main product groups presented in Table 2.

Table 2 – Average price increase by product group

Group	Average increase, %
Cereals and cereals products	+24,8
Meat products	+53,1
Dairy products	+64,0
Vegetables	+75,1
Other food products (eggs, sugar, salt, oil)	+24,9
Source: https://stat.gov.kz/ru	

* Compiled by the author

The obtained results indicate that external crises have an uneven impact on different groups of food products. Meat and dairy products, as well as vegetables, were found to be the most sensitive categories. Their production and distribution depend to a greater extent on the costs of feed, fuel, electricity, transportation, and logistics [8]. At the same time, the price situation for certain non-perishable food products stabilized more rapidly [9].

Thus, external economic crises not only lead to an overall increase in food prices but also affect individual groups of socially significant food products in different ways. This reduces the economic accessibility of food and creates additional risks for ensuring Kazakhstan's food security [10].

Conclusion

The analysis demonstrated that external economic factors have a significant impact on Kazakhstan's food market. The depreciation of the national currency, the COVID-19 pandemic, and the geopolitical crisis of 2022 were all accompanied by increases in food prices; however, the magnitude of their impact varied.

A comparison of consumer price indices and average prices for socially significant food products made it possible to identify the most sensitive product groups. Substantial price increases were observed across a wide range of food products, whereas price changes for certain non-perishable products were less pronounced. These findings indicate that different categories of food products respond differently to external economic shocks.

The results confirm that rising food prices reduce the economic accessibility of food, which is one of the key dimensions of food security. Therefore, assessments of food security should consider not only production volumes and the adequacy of food supply but also price changes for socially significant food products.

The practical significance of this study lies in the proposed approach, which combines official consumer price indices with data on average prices for socially significant food products to assess the impact of external economic factors on food security. This approach can be applied to monitor the domestic food market and to support the development of public policies aimed at mitigating the adverse effects of external crises.

REFERENCES

- 1 Дуйсенбекова, А. А., Хамульчук, К. М., Тлеужанова, М. А., Даниловка, А. Эконометрическая оценка детерминант продовольственных цен: кейс Казахстана // Вестник университета «Туран». – 2025. – (3). – С. 171–186. – <https://doi.org/10.46914/1562-2959-2025-1-3-171-186>.
- 2 Дуламбаева, Р., Демешева, Т. Оценка влияния мировых цен на продовольствие на продовольственную инфляцию в Республике Казахстан // Kazakhstan-Spectrum. – 2025. – № 2 (113). – С. 117–131. – <https://doi.org/10.52536/2415-8216.2025.114.2.008>
- 3 Omarova, A., Oralbaeva, Zh., Turlybekova, A., Marat, A. Influence of inflation on long-term economic growth in the context of the raw material orientation of the national economy // E3S Web of Conferences. – 2020. – (159). – P. 6003–6003. – <https://doi.org/10.1051/e3sconf/202015906003>
- 4 Дуйсенбекова, А. А. Оценка продовольственной безопасности в условиях пандемии: пример Республики Казахстан // Вестник университета «Туран». – 2023. – (3). – С. 238–252. – <https://doi.org/10.46914/1562-2959-2023-1-3-238-252>
- 5 Саханова, Г. Б., Садыкова, Ж. Е., Залучёнова, О. М., Кыдырхан, М. А. Актуальные вопросы обеспечения продовольственной безопасности Республики Казахстан // Вестник университета «Туран». – 2023. – № (1). – С. 63–75. – <https://doi.org/10.46914/1562-2959-2023-1-1-63-75>
- 6 Tulegenova, M. Temerbulatova, Zh., Baimukhametova, A., Rakhmatullayeva, D. Contradictions of institutional and economic environment: Experience of Kazakhstan // Przedsiębiorczość Międzynarodowa. – 2021. – № 4 (7). – P. 75–88. – <https://doi.org/10.15678/IER.2021.0704.06>
- 7 Официальные данные сайта Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан [Электронный ресурс]. – URL: <https://stat.gov.kz/ru/> (Дата обращения 07.07.2026).

8 **Popa, I., Stanescu, G., Duica, A., Molnar, I.** Cost Optimisation of Supply Chains in the Food Industry: Cost Function Modelling // *Amfiteatru Economic.* – 2025. – № 69 (27). – P. 293. – <https://doi.org/10.24818/EA/2025/69/293>

9 **Baumeister, C., Kilian, L.** Do oil price increases cause higher food prices? // *Bank of Canada.* – 2013. – P. 13–52. – <https://doi.org/10.34989/swp-2013-52>

10 **Raymond, A. B., et al.** Systemic risk and food security. Emerging trends and future avenues for research // *Global Food Security.* – 2021. – (29). – P. 100547. – <https://doi.org/10.1016/j.gfs.2021.100547>

REFERENCES

1 **Dujsenbekova, A.A., Hamul'chuk, K. M., Tleuzhanova, M. A., Danilovka, A.** Jekonometricheskaja ocenka determinant prodovol'stvennyh cen: kejs Kazakhstana [Econometric assessment of food price determinants: the case of Kazakhstan] // *Vestnik universiteta «Turan».* – 2025. – (3). – P. 171–186. – <https://doi.org/10.46914/1562-2959-2025-1-3-171-186> [in Russian]

2 **Dulambaeva, R., Demesheva, T.** Ocenka vlijanija mirovyh cen na prodovol'stvie na prodovol'stvennuju infljaciju v Respublike Kazahstan [Assessment of the impact of world food prices on food inflation in the Republic of Kazakhstan] // *Kazakhstan-Spectrum.* – 2025. – № 2 (113). – P. 117–131. – <https://doi.org/10.52536/2415-8216.2025.114.2.008> [in Russian]

3 **Omarova, A., Oralbaeva, Zh., Turlybekova, A., Marat, A.** Influence of inflation on long-term economic growth in the context of the raw material orientation of the national economy // *E3S Web of Conferences.* – 2020. – (159). – P. 6003–6003. – <https://doi.org/10.1051/e3sconf/202015906003>

4 **Dujsenbekova, A. A.** Ocenka prodovol'stvennoj bezopasnosti v uslovijah postpandemii: primer Respubliki Kazahstan [Assessment of food security in a post-pandemic environment: the example of the Republic of Kazakhstan] // *Vestnik universiteta «Turan».* – 2023. – (3). – P. 238–252. – <https://doi.org/10.46914/1562-2959-2023-1-3-238-252> [in Russian]

5 **Sahanova, G. B., Sadykova, Zh. E., Zaluchjonova, O. M., Kydyrhan, M. A.** Aktual'nye voprosy obespechenija prodovol'stvennoj bezopasnosti Respubliki Kazahstan [Current issues of ensuring food security of the Republic of Kazakhstan] // *Vestnik universiteta «Turan».* – 2023. – (1). – P. 63–75. – <https://doi.org/10.46914/1562-2959-2023-1-1-63-75> [in Russian]

6 **Tulegenova, M. Temerbulatova, Zh., Baimukhametova, A., Rakhmatullayeva, D.** Contradictions of institutional and economic environment: Experimete of Kazakhstan // *Przedsiębiorczość Międzynarodowa.* – 2021. – № 4 (7). – P. 75–88. – <https://doi.org/10.15678/IER.2021.0704.06>

7 Oficial'nye dannye sajta Bjuro nacional'noj statistiki Agentstva po strategicheskomu planirovaniju i reformam Respubliki Kazahstan [Official data of the website of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan] [Electronic resource]. – URL: <https://stat.gov.kz/ru/> (Date of access 07.07.2026) [in Russian]

8 **Popa, I., Stanescu, G., Duica, A., Molnar, I.** Cost Optimisation of Supply Chains in the Food Industry: Cost Function Modelling // *Amfiteatru Economic*. – 2025. – № 69 (27). – P. 293–293. – <https://doi.org/10.24818/EA/2025/69/293>

9 **Baumeister, C., Kilian, L.** Do oil price increases cause higher food prices? // *Bank of Canada*. – 2013. – P. 13–52. – <https://doi.org/10.34989/swp-2013-52>

10 **Raymond, A. B., et al.** Systemic risk and food security. Emerging trends and future avenues for research // *Global Food Security*. – 2021. – (29). – P. 100547–100547. – <https://doi.org/10.1016/j.gfs.2021.100547>

Received 14.07.26.

Received in revised form 27.07.26.

Accepted for publication 15.08.26.

**Е. А. Досымжанов*

Торайгыров университеті,

Қазақстан Республикасы, Павлодар қ.

14.07.26 ж. баспаға түсті.

27.07.26 ж. түзетулерімен түсті.

15.08.26 ж. басып шығаруға қабылданды.

КАЗАҚСТАНДАҒЫ СЫРТҚЫ ЭКОНОМИКАЛЫҚ КҮЙЗЕЛІСТЕРДІҢ АЗЫҚ-ТҮЛІК БАҒАСЫНЫҢ ДИНАМИКАСЫНА ӘСЕРІ

Қазақстан Республикасы Ұлттық статистика бюросының ресми статистикалық деректері Қазақстандағы әлеуметтік маңызы бар азық-түлік тауарларының бағалық қолжетімділігін талдау үшін пайдаланылды. Зерттеу 2015 және 2020 жылдардағы дағдарыс кезеңдерін қамтиды, сондай-ақ 2022–2026 жылдар аралығындағы әлеуметтік маңызы бар 19 азық-түлік тауарының орташа бағаларына жүргізілген талдауды қамтиды. Азық-түлік бағасының динамикасы ұлттық валютаның құнсыздануы, COVID-19 пандемиясы және геосаяси тұрақсыздық салдарларын салыстыру арқылы зерттелді. Жекелеген азық-түлік түрлерінің құнының

өзгеруі талданып, негізгі тауар топтары бойынша бағаның өсу қарқыны есептелді. Сыртқы факторлардың ықпалына неғұрлым сезімтал өнім санаттары және дағдарыстардың табиғатына байланысты баға өзгерістерінің ерекшеліктері анықталды. Зерттеу нәтижелері валюталық, логистикалық және геосаяси күйзелістердің азық-түлік инфляциясының жеделдеуіне алып келетінін және әлеуметтік маңызы бар тауарлардың әртүрлі топтарына біркелкі әсер етпейтінін көрсетті. Бағаның ең жоғары өсуі көкөніс, сүт және ет өнімдерінде байқалды, ал ұзақ сақталатын кейбір тауарлар бойынша күрт қымбаттаудан кейін бағалардың тұрақтануы орын алды. Зерттеу нәтижелері ішкі азық-түлік нарығының жағдайын бағалауға ықпал етіп, Қазақстандағы азық-түлік қауіпсіздігін қамтамасыз ету саласында шешім қабылдауды қолдай алады.

Кілтті сөздер: Азық-түлік қауіпсіздігі, сыртқы экономикалық факторлар, азық-түлік бағасы, әлеуметтік маңызы бар азық-түлік тауарлары, баға индексі, орташа бағалар.

**Е. А. Досымжанов*

Торайғыров университет,
Республика Казахстан, г. Павлодар.

Поступило в редакцию 14.07.26.

Поступило с исправлениями 27.07.26.

Принято в печать 15.08.26.

ВЛИЯНИЕ ВНЕШНЕЭКОНОМИЧЕСКИХ ШОКОВ НА ДИНАМИКУ ЦЕН НА ПРОДОВОЛЬСТВИЕ В КАЗАХСТАНЕ

Официальные статистические данные Бюро национальной статистики Республики Казахстан были использованы для анализа ценовой доступности социально значимых продовольственных товаров в Казахстане. Исследование охватывает кризисные периоды 2015 и 2020 годов, а также включает анализ средних цен на 19 социально значимых продовольственных товаров за 2022–2026 годы. Динамика цен на продовольственные товары исследована путем сопоставления последствий девальвации национальной валюты, пандемии COVID-19 и геополитической нестабильности. Проведен сравнительный анализ изменения стоимости отдельных видов продовольствия и рассчитаны темпы роста цен по основным

товарным группам. Выявлены категории продукции, наиболее чувствительные к воздействию внешних факторов, а также различия в характере ценовых изменений в зависимости от природы кризисных явлений. Полученные результаты показывают, что валютные, логистические и геополитические шоки приводят к ускорению продовольственной инфляции и неодинаково воздействуют на отдельные группы социально значимых товаров. Наиболее высокий рост цен отмечен по овощной, молочной и мясной продукции, тогда как по отдельным товарам длительного хранения после резкого повышения наблюдалась последующая стабилизация цен. Полученные результаты могут способствовать оценке состояния внутреннего продовольственного рынка и поддерживать принятие решений в области обеспечения продовольственной безопасности Казахстана.

Ключевые слова: продовольственная безопасность, внешнеэкономические факторы, цены на продовольствие, социально-значимые продовольственные товары, индекс цен, средние цены.

Теруге 07.09.2026 ж. жіберілді. Басуға 30.09.2026 ж. қол қойылды.

Электронды баспа

3,25 Mb RAM

Шартты баспа табағы 30,2

Компьютерде беттеген: З. С. Исакова

Корректоры: А. Р. Омарова, Д. А. Кожас

Тапсырыс № 4598

Сдано в набор 07.09.2026 г. Подписано в печать 30.09.2026 г.

Электронное издание

3,25 Mb RAM

Усл.п.л. 30,2

Компьютерная верстка: З. С. Исакова

Корректорлар: А. Р. Омарова, Д. А. Кожас

Заказ № 4598

«Toraighyrov University» баспасынан басылып шығарылған

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 137 каб.

«Toraighyrov University» баспасы

Торайғыров университеті

140008, Павлодар қ., Ломов к., 64, 137 каб.

8 (7182) 67-36-69

e-mail: kereku@tou.edu.kz

www.vestnik.tou.edu.kz

www.vestnik-economic.tou.edu.kz