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INDUSTRIAL DEVELOPMENT ORGANIZATION



STANDARDS COMPLIANCE ANALYTICS REPORT

**BORDER REJECTIONS IN MAJOR GLOBAL MARKETS
UKRAINE**

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INTRODUCTION

Technical regulations and standards are increasingly prevalent and continuously evolving in the international trade of food and nonfood (industrial) products. Moreover, there is evidence that many developing countries face challenges in complying with the safety and quality requirements that these regulations and standards lay down. Since 2008, UNIDO has regularly collected evidence about trade related challenges and their evolution over time, particularly in the area of compliance with (quality, certification, labeling, etc.) requirements set by international markets.

In their efforts to improve compliance, the challenge for national governments and donors is to allocate scarce financial and technical resources amongst a plethora of capacity building needs. There is, therefore, a need to identify where the most acute compliance challenges are faced—in a trade context this means identifying the products and markets with the highest rates of non-compliance—thus recording rejections. In this context, the Standards Compliance Analytics (SCA) tool can be used to facilitate the use of rejection data to identify the key compliance challenges faced by exporting countries and thereby en-

hance targeting of investments in building relevant compliance capacities (more details about the SCA tool can be found in the Annex).

Using the SCA tool, this report focuses on analyzing the trends and patterns of Ukrainian agri-food import rejections in five major international markets, namely Australia, China, the European Union (EU), Japan and the United States (US). The objective of this report is to gain insights about the challenges faced by Ukraine in complying with product quality and safety standards and regulations in agri-food trade towards both regional and global markets.

The report was developed under the [Global Quality and Standards Programme](#) (GQSP), funded by Switzerland through its State Secretariat for Economic Affairs (SECO).

The [UNIDO Knowledge Hub](#) offers abundant information, online trainings, and digital tools about Quality Infrastructure, including the [SCA](#) tool. Any feedback and comments on this report are welcomed and can be addressed to knowledgehub@unido.org.

CONTEXT



A. COUNTRY PROFILE



Country	Ukraine
Continent	Eastern Europe
Population	38 million (2022)
GDP	160.5 billion USD (2022)
GDP per capita	4,534 USD (2022)
Value added by Agriculture, Forestry and Fishing	8.2 % of GDP (2022)
Food Safety Index	53 (2017)
Logistics Performance Index (overall)	2.7 (2023)
3 Year Average of Food Production	398 (2015 – 2017; unit: \$1 per capita)

According to the World Bank, Ukraine is a **lower-middle income**¹ country with a Human Development Index value in 2021 of **0.773**² – which puts the country in the **high** development category positioning it at 77 out of 191 countries and territories. Between 1990 and 2021, Ukraine's HDI value rose from 0.729 to 0.773³. Due to the Russian invasion of Ukraine which started in February 2022, Ukraine's Gross Domestic Product (GDP) declined by a staggering **29.2%** in 2022. The contraction was less than expected thanks to a UN-brokered grain deal and to the return of nearly 4 million migrants which improved economic activity. However, attacks on the electricity infrastructure caused disruptions and resulted in a contraction in the fourth quarter of the year. Annual exports declined by 30%, while imports contracted by only 4%. Despite a localization of active combat, Ukraine's economic outlook is conditional on the timing and quantity of external assis-

tance receipts and the assumed duration of Russia's invasion. Under an indicative scenario that assumes active hostilities will continue throughout 2024, GDP is expected to expand modestly by 3.2% this year⁴. In addition, according to the World Bank as of April 2023, the cost of reconstruction and recovery in Ukraine is estimated to have reached £411 billion, or more than twice the size of Ukraine's pre-war economy in 2021⁵.

As a key component of a country's exports business, the **logistic performance index (LPI)** of Ukraine is shown in **Table 1**⁶. The overall LPI score is 2.7 and is ranked at number 79 among 160 countries in the study (Lower bound/2.46 | Upper bound/2.86). The LPI has decreased from 2.83 in 2018 and has receded 16 places in the past five years. This decline is most likely due to the onset of the Russian invasion in early 2022.

- 1 World Bank. World Bank Country and Lending Groups. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- 2 UNDP. United Nations Development Program. 2020. Human Development Report. The Next Frontier: Human Development and the Anthropocene. <https://hdr.undp.org/system/files/documents/hdr2020.pdf>
- 3 UNDP. United Nations Development Program. 2022. Human Development Reports. Ukraine. <https://hdr.undp.org/data-center/specific-country-data/#/countries/UKR>
- 4 World Bank Group (2022). The World Bank in Ukraine – Recent Economic Developments. <https://www.worldbank.org/en/country/ukraine/overview#3>
- 5 World Bank (April 6th, 2023). Russia's Invasion of Ukraine and Cost-of-Living Crisis Dim Growth Prospects in Emerging Europe and Central Asia. <https://www.worldbank.org/en/news/press-release/2023/04/06/russian-invasion-of-ukraine-and-cost-of-living-crisis-dim-growth-prospects-in-emerging-europe-and-central-asia#:~:text=Ukraine's%20economy%20is%20projected%20to,Russia's%20invasion%20of%20the%20country>
- 6 World Bank. Logistics Performance Index (LPI) – Ukraine. 2023 <https://lpi.worldbank.org/international/global>

TABLE 1: INTERNATIONAL LPI IN 2023 – UKRAINE

Country	Year	LPI Score	Customs Score	Infrastructure Score	International shipments Score	Logistics competence Score	Tracking & tracing score	Timeliness Score
Ukraine	2023	2.7	2.4	2.4	2.8	2.6	2.6	3.1

The Global Competitiveness Index (GCI) comprises up to 103 indicators derived from a combination of data sources from international organizations and the World Economic Forum’s survey. It encompasses various factors, including institutions, infrastructure, Information and Communications Technology (ICT) adoption, macroeconomic stability, health, skills, product market, labor market, financial system, market size, business dynamism, and innovation capability, among others. The GCI provides a score ranging between 1 to 100. In 2019, Ukraine obtained a score of 57, ranking 85th, and experienced a two-place decline compared to the previous year.

The agriculture sector, which includes the forestry and fisheries sub-sectors, contributed to **7.4%**⁷ of Ukraine’s GDP in 2023 down from 8.6% in 2022 and employed 15% of the workplace in 2021, according to the World Bank.

The industrial sector accounted for almost **18.8%**⁹ of the country’s GDP in 2023 and employed **24%**¹⁰ of the active population in 2021. This sector is focused on mining equipment, railway rolling stock, farm equipment, turbo propellers, gas turbines, machine tools, aircraft engines, metals, and non-metallic minerals. Its two main subsectors are mining and manufacturing. The latter, which refers to a segment of the economy in which raw material is converted into tangible output ‘products’ through value addition, contributed to **8%**¹² of Ukraine’s GDP in 2023. For the last decade, the services sector has continued to rise in importance in its contribution to Ukraine’s economy. Indeed, it accounted for 61.3%¹³ of the GDP in 2023 and employed 61%¹⁴ of the workforce in 2021. The services sector has significantly surpassed the agriculture and the industry sectors in terms of contribution to the GDP.



B. AGRICULTURE SECTORFILE

The agricultural sector in Ukraine has experienced considerable changes since the country gained independence in 1991, following the dissolution of the Soviet Union. In 2000, state and collective farms were formally dismantled, with farm assets being distributed to workers in the form of land shares. As a result, many shareholders chose to lease their land to newly-formed private agricultural associations. The abrupt halt of state agricultural subsidies had a profound impact on various aspects of Ukrainian agriculture. The decline in livestock inventories, which had already begun in the late 1980s, continued and intensified. Over the course of a decade, fertilizer usage decreased by 85% and grain production saw a decline of 50%. Limited funds for capital investment forced farms to continue using outdated and inefficient machinery. However, the transition away from the Soviet-era command economy empowered farmers to make more market-oriented decisions regarding their choice of crops and their management practices. This transition led to increased efficiency in both livestock and crop production. Despite these advancements, many agricultural enterprises still face significant challenges in securing credit, especially when it comes to obtaining substantial, long-term loans¹⁵.

The agricultural sector in Ukraine is characterized by two different modes of productions. First, the large-scale industrial agribusiness controls 53.9% of arable land and contributes to 54.5% of Ukraine’s gross domestic agricultural output. This mode specializes in producing grain and oilseeds for export purposes. Second, the family-based farming model is comprised diverse small and medium-sized family farms and rural households, which cultivate 45.5% of the land and produce vegetables, fruits, grains, dairy and meat products for personal consumption as well as for sale in the domestic market¹⁶.

The invasion by Russia has severely damaged Ukraine’s agricultural industry. Pre-war agricultural exports accounted for \$27.8B annually, or 41% of all Ukrainian exports¹⁷. As of February 2023, it is estimated that Russia’s war in Ukraine caused \$8.72B in damages with additional aggregate losses of \$31.05B. These damages include the partial or complete destruction of equipment, storage facilities, livestock, as well as

stolen inputs and outputs. The aggregate losses include production losses, such as unharvested crops, higher production costs, and lower selling prices of commodities destined for exports, such as wheat, corn, sunflower seeds, and barley. In 2022, Ukraine saw a reduction in agricultural activity, with only 75% of its agricultural land sown and harvested. Total agricultural production experienced a significant decline of 28.3% compared to the previous year, according to estimates provided by the State Statistics Service and the Ministry of Agrarian Policy and Food of Ukraine. This decline encompassed a 32.3% reduction in crop production and an 11.1% decrease in livestock production. Production declines were particularly evident for wheat, sunflower seeds, and maize¹⁸.

Prior to the Russian invasion, 98% of Ukraine’s grain exports were transported through the Black Sea. During the first few months of the war, this shipping route was cut off which had a marked negative impact on global food security. As a result, more than 25 million tons of grain were trapped in ports in Ukraine. In response, the UN brokered the Black Sea Grains Initiative, which allowed for the export of grains from three ports in Odessa to Türkiye. Unfortunately, despite this deal, trade volumes remain below pre-war capacity. On 17 July 2023, Russia withdrew from the Black Sea Grains Initiative. Since then, very few cargo ships carrying Ukrainian grain have traveled around the western coast of the Black Sea, through Romanian and Bulgarian territorial waters, in order to be safe from Russian attacks. Despite the grim circumstances, a glimmer of hope emerged in September 2023, courtesy of a military campaign that effectively expelled Russian warships from Ukrainian waters, thereby securing a safe shipping route. Thanks to this operation, Ukraine could resume its grain and oilseed exports, nearly reaching prewar levels. Between September 2023 and March 2024, Ukraine exported 27.6 million metric tons of grain and oilseeds via the Black Sea, representing only 0.2 million metric tons less than the average export volume recorded during the same period from 2018 to 2021.

Multiple costs will be incurred to repair or replace agricultural gear, lost cattle, and destroyed grain storage facilities²⁰. While aid from international organiza-

7 World Bank (2021). Agriculture, forestry, and fishing, value added (% of GDP) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=UA>
 8 World Bank (2021). Employment in agriculture (% of total employment) (modeled ILO estimate) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=UA>
 9 World Bank (2021). Industry (including construction), value added (% of GDP) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/NV.IND.TOTL.ZS?locations=UA>
 10 World Bank (2021). Employment in industry (% of total employment) (modeled ILO estimate) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/SL.IND.EMPL.ZS?locations=UA>
 11 United Nations Industrial Development Organization (2024). Ukraine industrial country Diagnostics 2023. Executive summary. UNIDO. https://www.unido.org/sites/default/files/unido-publications/2024-02/Executive%20summary_industrial%20diagnostic%20study_2023_0.pdf
 12 World Bank (2021). Manufacturing, value added (% of GDP) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=UA>
 13 World Bank (2021). Services, value added (% of GDP) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=UA>
 14 World Bank (2021). Employment in services (% of total employment) (modeled ILO estimate) – Ukraine. The World Bank Data. <https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS?locations=UA>

15 World Data Center. Ukraine: Agricultural Overview. <http://wdc.org.ua/en/node/29>
 16 Transnational Institute (November 9, 2023). Ukrainian agriculture in wartime: Resilience, reforms, and markets. TNI. <https://www.tni.org/en/article/ukrainian-agriculture-in-wartime>
 17 U.S Department of Agriculture (April, 2022). Ukraine Agricultural Production and Trade. Foreign Agriculture Service. <https://fas.usda.gov/sites/default/files/2022-04/Ukraine-Factsheet-April2022.pdf>
 18 Organisation for Economic Cooperation and Development. Ukraine – Support to agriculture. OECD. <https://www.oecd-ilibrary.org/sites/5aad30c5-en/index.html?itemId=/content/component/5aad30c5-en>
 19 Meheut, C. (2024, May 12). Ukraine’s seaborne grain exports bounce back to near prewar levels. The New York Times. https://www.nytimes.com/2024/05/12/world/europe/ukraine-black-sea-grain-exports.html?campaign_id=51&emc=edit_mbe_20240513&instance_id=123175&n1=morning-briefing-europe-edition®i_id=95356886&segment_id=166462&te=1&user_id=e0e9b857a389ccdf5a03df870c1bcad
 20 International Trade Administration (2023, January 11). Ukraine – Country Commercial Guide – Agribusiness. <https://www.trade.gov/country-commercial-guides/ukraine-agribusiness>

tions, other governments, and the private sector have amounted to \$8.7B as of April 2023 and have provided seeds, invested in the construction and repair of production facilities, and supported demining farmlands, the indirect toll of the war on the Ukrainian agricultural sector is estimated to amount to four times that amount or \$34.2B. In addition, due to the large-scale military invasion by Russia, the Cabinet of Ministers of Ukraine had to divert \$136M of the state budget for 2022 from supporting the agricultural sector to security and defense. Therefore, all producer-support programmes were suspended. After the war concludes, funding will need to be restored to provide producer support and to build a more sustainable agricultural sector that is adaptable and resilient in the face of challenges, such as water scarcity, climate change, etc. The Ukrainian government will be also able to resume the implementation of its Irrigation and Drainage System, encouraging farmers to invest in irrigation and drainage technologies.

Agriculture production:

Ukraine has been known as the breadbasket of Europe, thanks to being home to a quarter of the world's fertile black "chernozem" soil and 42 million hectares of agricultural land. Currently, 32 million hectares are cultivated annually. Ukraine has a highly developed crop production, due in part to its rich soils with more than 55% of the land being arable and to its suitable climate. The nation is a significant producer and exporter of staple grains, which are essential supplies for the global food system²¹. One-third of the world's **sunflower oil** is produced in Ukraine and its export was worth \$6.4B in 2021. The country is also the world's ninth-largest producer and seventh-largest exporter of **soybeans** with sales totaling approximately \$600M in 2021. It's the fourth-largest exporter of **maize**, rank-

ing as the sixth-largest producer in the world with \$5.9B worth of exported corn in 2021 with a third going to China and another third heading to the EU²². Ukraine ranks among the top European producers of grain and potatoes. Although Ukraine's livestock industry lags behind the agricultural industry, its overall output is still much higher than that of the majority of other European nations. In addition, Ukraine's black soils are ideally adapted for the production of **wheat** and **sugar beets**, a significant industrial crop. Other than wheat, which is nearly entirely planted in the fall, Ukraine also grows **barley**, which is primarily used as animal feed, **corn** and **leguminous grains** also used as animal feed, **oats**, **rye**, **millet**, **buckwheat**, and **rice**.

Agriculture exports:

In terms of exports, Ukraine exported a total of **\$47.1B** in 2022, making it the 61st exporter in the world. The most recent exports comprised corn (\$6.02B), seed oils (\$5.54B), wheat (\$3.27B), iron ore (\$2.97B), and rapeseed (\$1.55B)²³. The most common destinations for these exports were Poland (\$6.7B), Romania (\$3.94B), Türkiye (\$3.02B), China (\$2.6B), and Germany (\$2.43B). Ukraine exported a total of \$14.3B in vegetable products, making it the 15th largest exporter of vegetable products in the world. The main destinations were Romania (\$1.99B), Türkiye (\$1.43B), Poland (\$1.31B), China (\$1.13B), and Spain (\$1.03B). Ukraine also exported \$6.07B in animal and vegetable bi-products, making it the 8th largest exporter in the world. The main destination were Poland (\$805M), India (\$774M), Türkiye (\$671M), Romania (\$430M), and the Netherlands (\$394M). This category covers seed oils, soybean oil, rapeseed oil, and margarine. The export of agriculture food and feed products to the EU as shown in **Figure 1**²⁵ has significantly increased by 71% from 2021 to 2023.



21 Foreign Agricultural Service — U.S. Department of Agriculture (April 2022). Ukraine Agricultural Production and Trade. USDA. <https://www.fas.usda.gov/sites/default/files/2022-04/Ukraine-Factsheet-April2022.pdf>

22 Observatory of Economic Complexity. Ukraine. OEC. <https://oec.world/en/profile/country/ukr>

23 Observatory of Economic Complexity. Animal and vegetable Bi-products in Ukraine. OEC. <https://oec.world/en/profile/bilateral-product/animal-and-vegetable-bi-products/reporter/ukr>

24 EU Commission Directorate-General for Agriculture and Rural Development (2023, April 18). AGRI-FOOD TRADE STATISTICAL FACTSHEET

25 European Union — Ukraine. EU Commission. https://agriculture.ec.europa.eu/system/files/2023-05/agrifood-ukraine_en_0.pdf

FIGURE 1: Structure of EU Agri-Food trade with Ukraine, 2013 – 2023

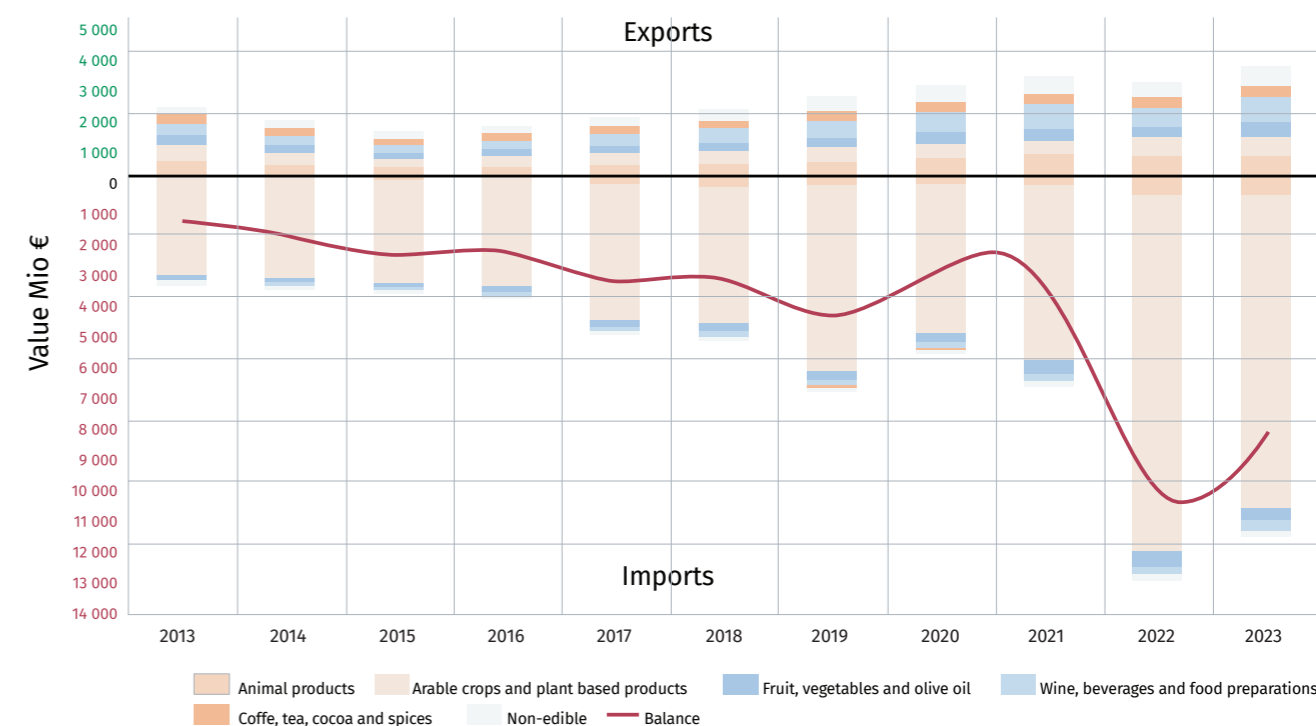
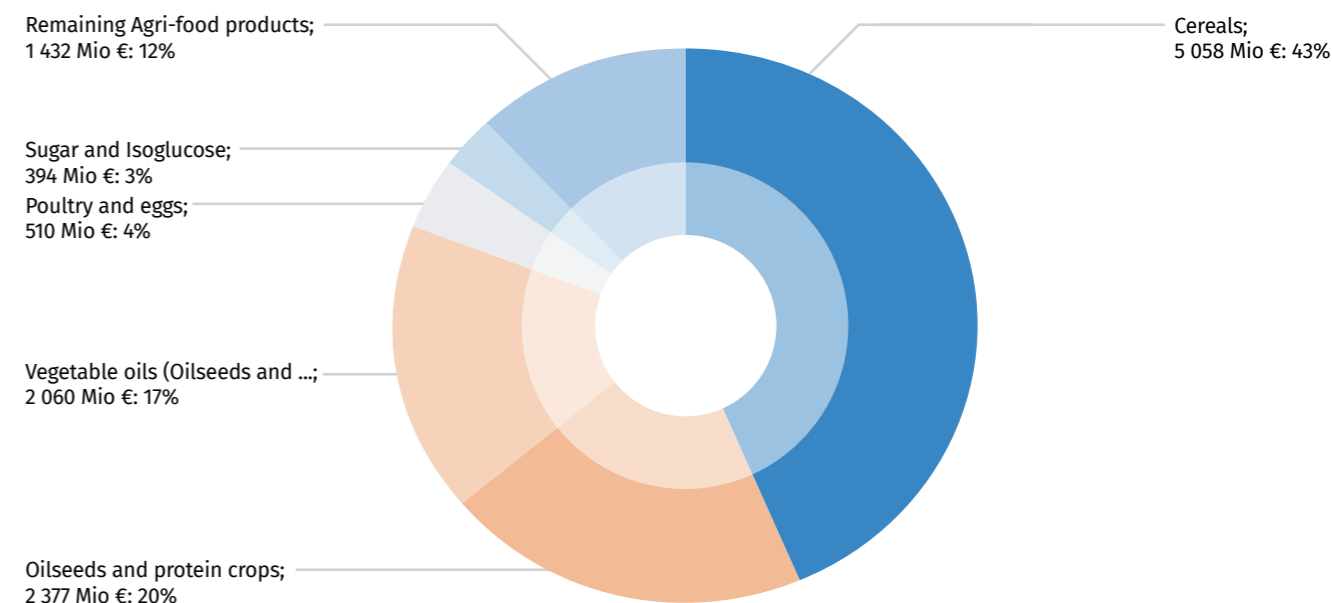


FIGURE 2: Top EU imports from Ukraine in 2023



On 8 April 2024, the EU announced a tentative agreement with representatives from the European Parliament to prolong the suspension of import duties and quotas on Ukrainian exports to the EU until June 2025. However, this extension comes with revised restrictions on imports of certain agricultural products. If officially approved, these new limitations would re-

impose tariff quotas on the import of poultry, eggs, sugar, oats, maize, groats, and honey, provided that the average export volumes surpass those of previous years. The EU's rationale for implementing these restrictions is to address potential adverse effects on the market of one or more member states²⁶.

26 The Kyiv Independent. (2024). EU to impose restrictions on export of Ukrainian agriculture products, agrees to free trade extension. <https://kyivindependent.com/eu-agrees-to-extend-trade-deal-with-ukraine-impose-restrictions-on-agriculture-products/>

C. INTERNATIONAL TRADE

In 2008, Ukraine became a member of the World Trade Organization (WTO), setting its agricultural bound tariffs at an average of 10.8%, increasing its export opportunities, and making changes to the system of state support for the agricultural sector. In March 2016, Ukraine formally acceded to the WTO Agreement on Government Procurement (GPA). This allowed Ukraine to join the 21 parties (covering 48 WTO members, counting the EU and its 27 member states as one party) who had already acceded to the agreement. This agreement required Ukraine to adhere to WTO regulations for public procurement in addition to accessing foreign markets for government procurement²⁷.

In March 2014, the EU and Ukraine signed the Deep and Comprehensive Free Trade Agreement (DCFTA). The agreement went into effect in September 2017 and involved tariff reductions and duty-free import quotas to facilitate trade between the EU and Ukraine, including the trade in agricultural products. Under the agreement, the EU agreed to open tariff rate quotas (TRQs) for duty-free imports for the top Ukrainian agri-food products, such as grain, meat and milk products, and sugar and to grant free access for others. Ukraine would, in turn, reduce import duties for several goods coming from the EU. The DCFTA includes provisions for technical regulations, conformity assessments, and standards to harmonize with those of the EU, as well as technical cooperation in the field of standards and related issues between Ukraine and the EU. In line with these provisions, the “Comprehensive Strategy of Implementing Legislation on Sanitary and Phytosanitary Measures”, which was approved in 2016, specified the process for Ukraine’s harmonization of its SPS legislation with the EU requirements. As of 2021, 64% of Ukraine’s obligations under the SPS section of the agreement have been completed²⁸.

Ukraine is engaged in other Free Trade Agreements (FTAs), such as an FTA with the European Free Trade Association (EFTA), which comprises the States of Iceland, Liechtenstein, Norway, and Switzerland, and came into force in June 2012. In 2020, an FTA between Ukraine and the United Kingdom was also concluded. An FTA with Israel entered into force on January 2021. On 3 February 2022, an FTA between Ukraine and Türkiye was signed in Kyiv. Finally, a Bilateral Investment Treaty (BIT) between the US and Ukraine went into effect in 1996. The BIT ensured non-discriminatory treatment, the freedom and promptness of financial transfers, and the application of international expropriation norms, including compensation and access to international arbitration in case of an investment dispute for U.S. investors. The US and Ukraine later signed a Trade and Investment Cooperation Agreement (TICA) in April 2008²⁹. In March 2017, Ukraine signed the OECD Declaration on International Investment and Multinational Enterprises, making it the 47th nation to do so. According to the Declaration, Ukraine has to provide an environment that is open and transparent for foreign investment and to promote the good impact that foreign investment can have on societal and economic advancement.

27 European Commission. EU-Ukraine Deep and Comprehensive Free Trade Area. European Union. <https://trade.ec.europa.eu/access-to-markets/en/content/eu-ukraine-deep-and-comprehensive-free-trade-area>

28 Organisation for Economic Cooperation and Development. Ukraine – Support to agriculture. OECD. <https://www.oecd-ilibrary.org/sites/5aad30c5-en/index.html?itemId=/content/component/5aad30c5-en>

29 International Trade Administration (2023, January 11). Ukraine – Country Commercial Guide – Trade Agreements. <https://www.trade.gov/country-commercial-guides/ukraine-trade-agreements>



STANDARDS COMPLIANCE ANALYSIS

A. COMPLIANCE WITH REGULATIONS IN AGRI-FOOD TRADE

Agriculture and the food processing industries have a long and illustrious history in Ukraine. While the country's natural resources provide it with many advantages, the sector's performance still has definite room for improvement. Ukraine's potential in agribusiness is constrained by out-of-date food safety laws and procedures, which obstruct investments and exports. There has however been an improvement in the last couple of years in the implementation of the Hazardous Analysis Critical Control Points (HACCP), a widely used system for managing food safety which ensures product safety all along the food chain, by Ukrainian food companies.

The work of the Technical Committees on Standardization (hereinafter referred to as "TC") is an important aspect of international collaboration in the area of standardization. Ukraine has been a full member of the International Organization on Standardization (ISO) and the International Electrotechnical Commission (IEC) since 1993. The Ukrainian Agency of Standardization (SE "UkrNDNC"), which serves as the country's National Standardization Body (NSB), confirmed its participation in these global organizations in 2015. 319 technical units of ISO were cooperating with 83 national TCs as P- and O- members at the start of 2017. Ukrainian TC participate in the development of draft standards, vote for ISO standard projects at various stages of project development, submit various types of comments for consideration, and complete the computerized voting processes at the ISO Balloting Portal.

Furthermore, Ukraine has been a member of the CEN and CENELEC European Committees for Standardization since 1997 and since 2001 respectively. Within these organizations, Ukraine held a variety of positions, and in 2017 it was granted the position of organization-companion on standardization. Such a status is anticipated for nations who are candidate states or could become candidates for EU membership. In addition to Ukraine, Moldova and Georgia now hold this status. As of 2 June 2017, the corresponding treaties have been signed. 23 structural units of CENELEC and 324 structural units of CEN provide technical resources to 43 Ukrainian TCs. The information on harmonized standards, which were adopted by Ukraine, is uploaded into the databases of CEN and CENELEC in order to fulfill its membership obligations to the European organizations for

standardization³⁰. Ukraine is also a member of the Interstate council on standardization, metrology, and certification. Ukraine is represented in ISC not by the Ukrainian Agency of Standardization but by the Ministry of Economy of Ukraine. Lastly, Ukraine's participation in ISO, IEC, and CEN CENELEC offers TC the chance to receive standardization projects, recently published standards, and other technical documents promptly and without charge, as well as the chance to receive up-to-date information on international and regional standardization and take part in meetings of international and European technical committees on standardization³¹.

Quality Infrastructure for Sustainable Development Index:

The Quality Infrastructure for Sustainable Development (QI4SD) Index, developed by UNIDO, provides a framework of indicators which summarizes the overall state of development of a country's and/or region's Quality Infrastructure (QI) readiness to support the Sustainable Development Goals (SDGs). Countries are grouped into GDP groups and within these groups, countries are then ranked based on their QI readiness to implement the SDGs. It's important to note that some of the ranking information relates to ranks within these groups and that even within the same GDP groups, countries vary considerably in size and other growth indicators. The data from the INetQI organizations was collected from February to June 2021. However, the data year might differ from the year of collection as these organizations have different timeframes to update their own information. QI is a multidimensional concept and is decomposed into the following five dimensions which are captured with 36 indicators from combined data sources: Metrology, Standardization, Conformity assessment, Accreditation, and Policy. Ukraine has a QI4SD Index score of 46.3 placing it in the 49th position for the countries assessed. With regard to the five dimensions, Ukraine has a value of 35.5 for Metrology, 49.9 for Standardization, 17.9 for Conformity assessment, and 81.8 for Accreditation (no data is currently available for the Policy dimension).

30 International Organization for Standardization (2003, August 21). SE UkrNDNC. ISO. <https://www.iso.org/member/2172.html>
31 Eastern Partnership Civil Society Forum (2017, August 1). European Standardization in Ukraine. European Union. <http://eap-csf.eu/wp-content/uploads/Final-Draft-analysis-Ukraine.pdf>

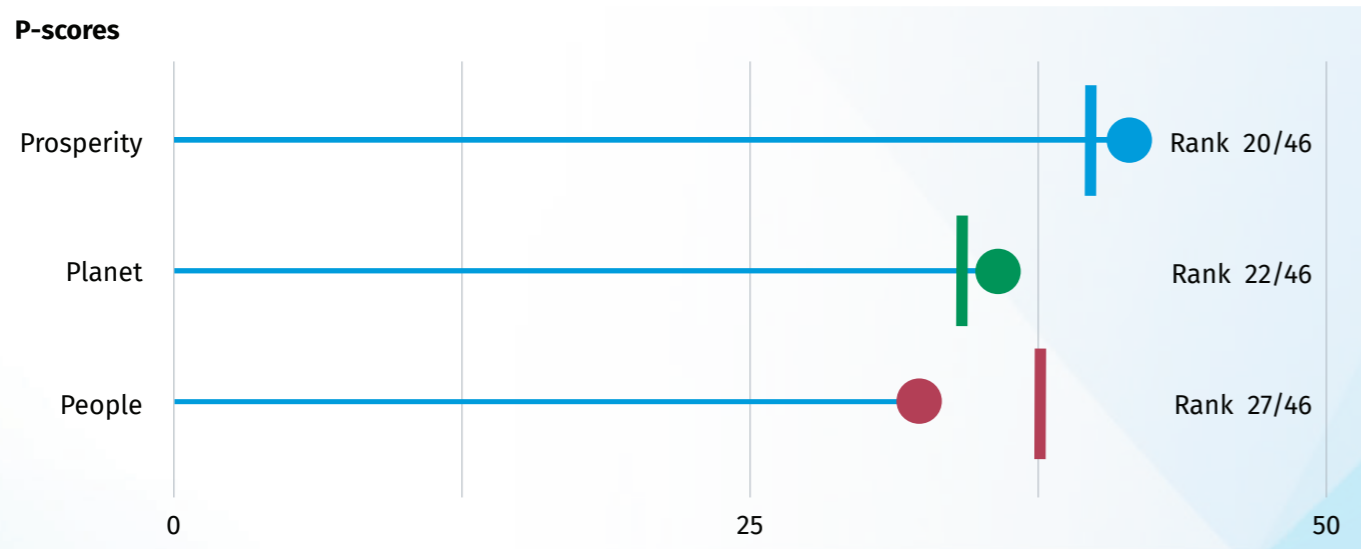
Ukraine has done well in the following areas:

Strengths	Dimension	Rank	Value	Unit
Number of IECEE certificates recognized	Conformity	7	1,860	Number
Breadth of CMCs	Metrology	22	27	Number of types
Scopes of IAF accreditation bodies	Accreditation	28	9	Number

While Ukraine should focus on improving the values of the following indicators:

Weaknesses	Dimension	Rank	Value	Unit
Involvement in OIML project groups	Metrology	52	5	Composite score
Membership of ITU	Standards	53	3	Composite score
Adopted ISO standards	Standards	82	3	Number

While Ukraine should focus on improving the values of the following indicators:



More details about the QI4SD Index can be found at <https://hub.unido.org/qi4sd/>.



REJECTION ANALYSIS

Sanitary and phytosanitary (SPS) measures are aimed at protecting the safety and health of consumers and complying with them applies to both domestic products as well as exports. When food and feed products get rejected at the borders, the consequences can be extremely dire and costly. The total cost of these rejections includes the loss of the export products (as they are usually destroyed by the importing country), transportation costs, freight and insurance, and related expenses. In addition to the loss of earnings, rejections damage the exporting country's reputation and the importing country may lose trust in the quality and safety of products coming from the exporting nation, thereby reducing the country's export competitiveness in the long term. Exporters may need to sell rejected products at a discount to account for the risk and risk joining the list of producers facing reinforced checks (as in the case of exports to the EU)³². The data set of border rejections covers the period of 2010 to 2022. However, data for the Chinese market is currently not available for the years 2021 and 2022.

Aggregate Rejection Rate:

The Quality Infrastructure for Sustainable Development (QI4SD) Index, developed by UNIDO, provides a framework of indicators which summarizes the overall state of development of a country's and/or region's Quality Infrastructure (QI) readiness to support the Sustainable Development Goals (SDGs). Countries are grouped into GDP groups and within these groups, countries are then ranked based on their QI readiness to implement the SDGs. It's important to note that some of the ranking information relates to ranks within these groups and that even within the same GDP groups, countries vary considerably in size and other growth indicators. The data from the INetQI organizations was collected from February to June 2021. However, the data year might differ from the year of collection as these organizations have different timeframes to update their own information. QI is a multidimensional concept and is decomposed into the following five dimensions which are cap-

tured with 36 indicators from combined data sources: Metrology, Standardization, Conformity assessment, Accreditation, and Policy. Ukraine has a QI4SD Index score of 46.3 placing it in the 49th position for the countries assessed. With regard to the five dimensions, Ukraine has a value of 35.5 for Metrology, 49.9 for Standardization, 17.9 for Conformity assessment, and 81.8 for Accreditation (no data is currently available for the Policy dimension).

The Aggregate Rejection Rate (ARR) is the simple sum of the annual number of rejections over the study period. Increases in the number of rejections can reflect both increases in the volume of exports and in the rate of non-compliance to product quality and safety standards and regulations. While the ARR is used to compare how well Ukrainian food exports are performing in the various markets, it is important to note that each country can apply different approaches to inspection. For instance, the US rejection data excludes meat, poultry, and their products. Additionally, not all importing countries included in the data set track the volume, size, and value of the consignments in their rejection data. Consequently, a more in-depth sub-analysis is necessary to facilitate the comparison of the number of rejections of a specific country's food and feed exports with the volume of food and feed products exported by that country to a particular market.

Although analyzing border rejection data proves quite useful in determining some of the causes of non-compliance to food safety standards, it is important to use caution and keep in mind that it is not the only indicator of non-compliance. For instance, if a certain food and feed product cannot get exported due to an inability to access a certain market for non-compliance reasons, it will not be included in the border rejections data set that is being analyzed (as no exports means no rejections). Accordingly, this analysis should be used hand-in-hand with other sets of data and indicators to get a broader picture of the short-term and long-term issues plaguing the quality infrastructure landscape of a specific country.

32 Kareem, F. O., Brümmer, T. L., & Martinez-Zarzoso, I. (2015). Food safety standards, compliance and European Union's rejection of African exports: The role of domestic factors. *GlobalFood Discussion Papers*, 74. <https://www.econstor.eu/bitstream/10419/121845/1/837623928.pdf>

TABLE 2: Aggregate Number of Rejections HS 1-23 Food and Feed Ukrainian exports during 2010 – 2020

Markets Weaknesses	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	%
Australia	3	0	7	2	0	1	0	2	2	0	2	19	2%
China	0	0	1	4	12	1	7	14	0	32	5	76	10%
EU-28	44	94	67	14	23	17	18	9	16	60	38	400	51%
Japan	0	1	1	0	0	0	1	1	0	1	0	5	1%
USA	27	49	27	30	15	15	43	26	13	9	29	283	36%
Total	74	144	103	50	50	34	69	52	31	102	74	783	100%

Table 2 and **Figure 3** show that the total number of rejections has remained the same from 2010 to 2020. However, there was major spikes in rejections from the EU-28 in 2011, 2012, and 2019. Per **Table 2** and **Figure 4**, during the period of 2010 – 2020, the European market accounted for almost half of the rejections (51%) of Ukrainian agricultural exports while the American one accounted for over a third of them (36%). As the exports of agri-food products with the EU amounted to over 75% of the total Ukrainian food exports, this high rate of 48% makes sense. The Chinese, Australian, and Japanese markets cover the remaining share of rejections (14%). It can be noted that the aggregate number of rejections for food and feed Ukrainian exports for the five markets has decreased by 16% from 74 to 58 during the studied period. This is considered an improvement that deserves to be acknowledged and commended as the number of exports has increased during that decade.

FIGURE 4: Share of rejections by market, 2010 – 2020

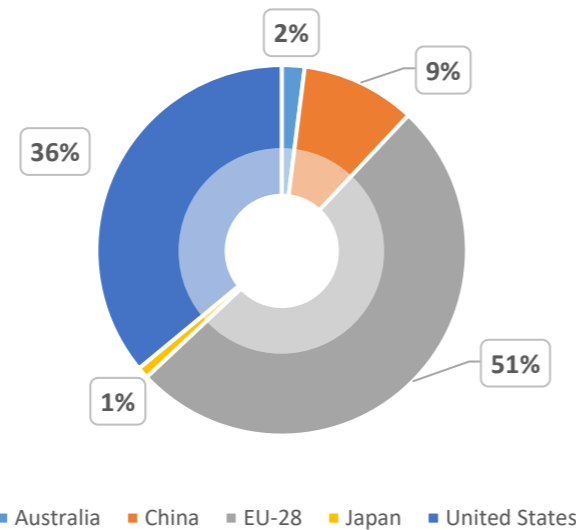


Table 2 and **Figures 5 and 6** show that rejections from the EU-28 market have fluctuated during the 2010 to 2020 period. In addition, according to **Figure 7**, we note that its share of total rejections has actually decreased during the studied period (60% in 2010 versus 38% in 2020). One reason for this is that Ukraine may not have been exporting a lot of its food products to the other markets in 2010. For the Chinese market, there was a peak in the share of total rejections in 2019, with China accounting for 45% of rejections that year. In the following sections, we will investigate further these fluctuations and find out if the high number of rejections is related to the increase in exports or if there are other reasons that led to a rise in non-compliance with food quality and safety standards.

FIGURE 3: Evolution of the global number of rejections for Ukrainian for the 5 markets, 2010 – 2020



FIGURE 5: Evolution of ARR by market, 2010 – 2020

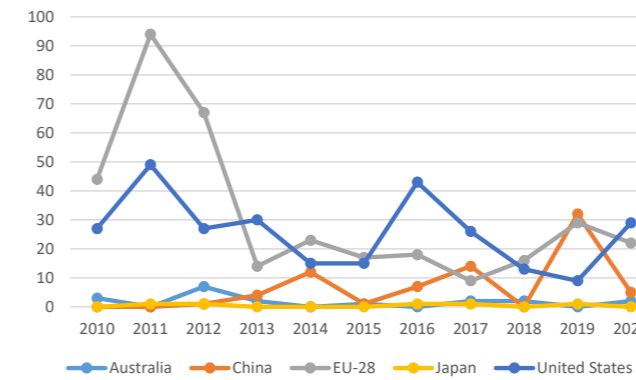


FIGURE 6: Global number of rejections for all markets, 2010 – 2020

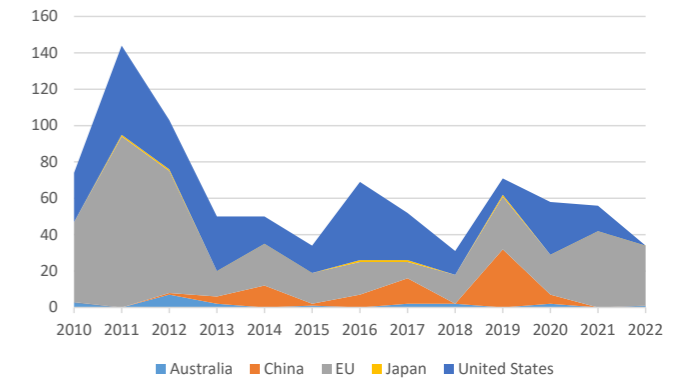


FIGURE 7: Share of rejections for Ukrainian export by market, 2010 – 2020

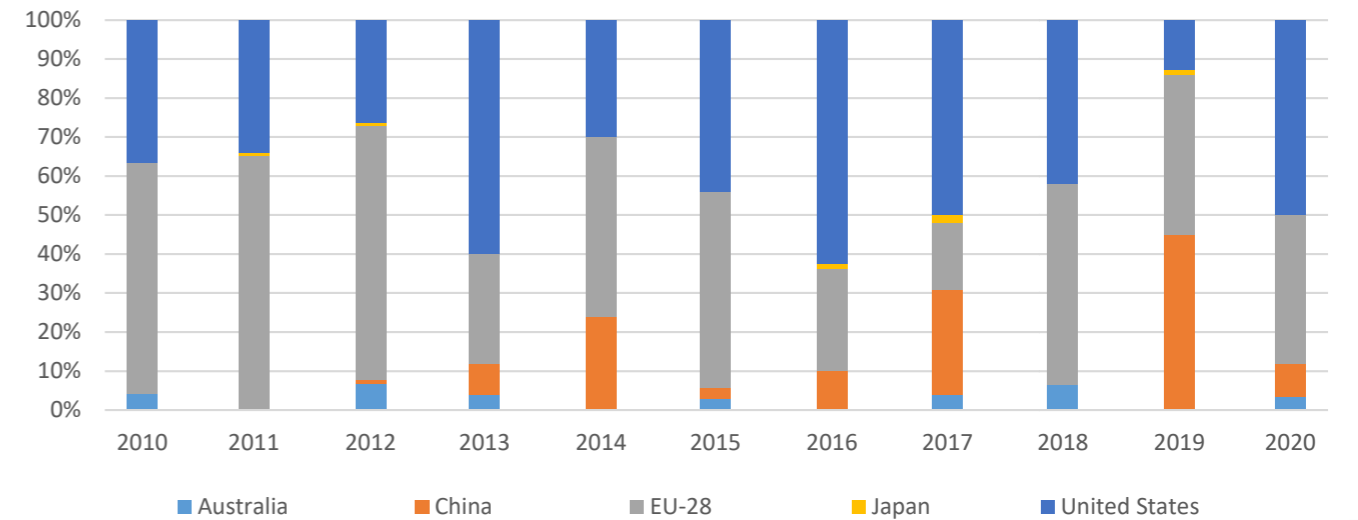


Table 3 includes the rejection data sets for 2021 and 2022 for all the markets except for the Chinese market.

TABLE 3: Aggregate Number of Rejections HS 1-23 Food and Feed Ukrainian exports during 2010 – 2022

Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Australia	3	0	7	2	0	1	0	2	2	0	2	0	1	20
China	0	0	1	4	12	1	7	14	0	32	5	N/A	N/A	76
EU	44	94	67	14	23	17	18	9	16	29	22	42	33	475
Japan	0	1	1	0	0	0	1	1	0	1	0	0	0	5
USA	27	49	27	30	15	15	43	26	13	9	29	14	0	297
Total	74	144	103	50	50	34	69	52	31	71	58	56	34	873

Table 3 shows that there was an increase in rejections in the EU market in 2021 compared to the previous year. However, in 2022, even though the export of agriculture food and feed products to the EU increased by 91%, the ARR value decreased from 42 in 2021 to 33 in 2022. For the American market, a decrease from 14 to 0 can also be noted. As the Russian invasion started in early 2022, there was a 15% decrease of agricultural products exported from Ukraine to the US in 2022 compared to the previous year³³. Therefore, it can be concluded that Ukraine has improved its compliance with food safety regulations set by the EU and the US.

As there were very few rejections recorded for the Australian and Japanese markets during the period of 2010 to 2020 for Ukrainian food and feed exports, these two markets will not be discussed any further and the focus of the analysis will solely include the European, American, and Chinese markets. It's however interesting to note that since 2017, there has been a concerted effort to certify Ukrainian agricultural products in order to ensure their entry into the Japanese market, which has

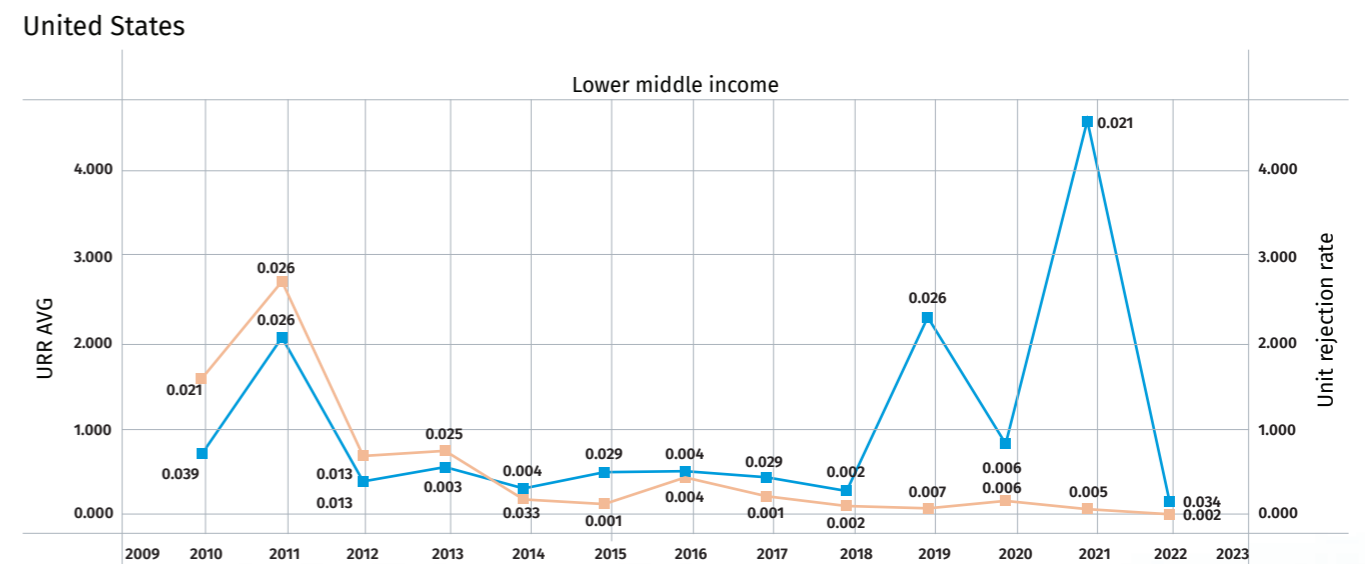
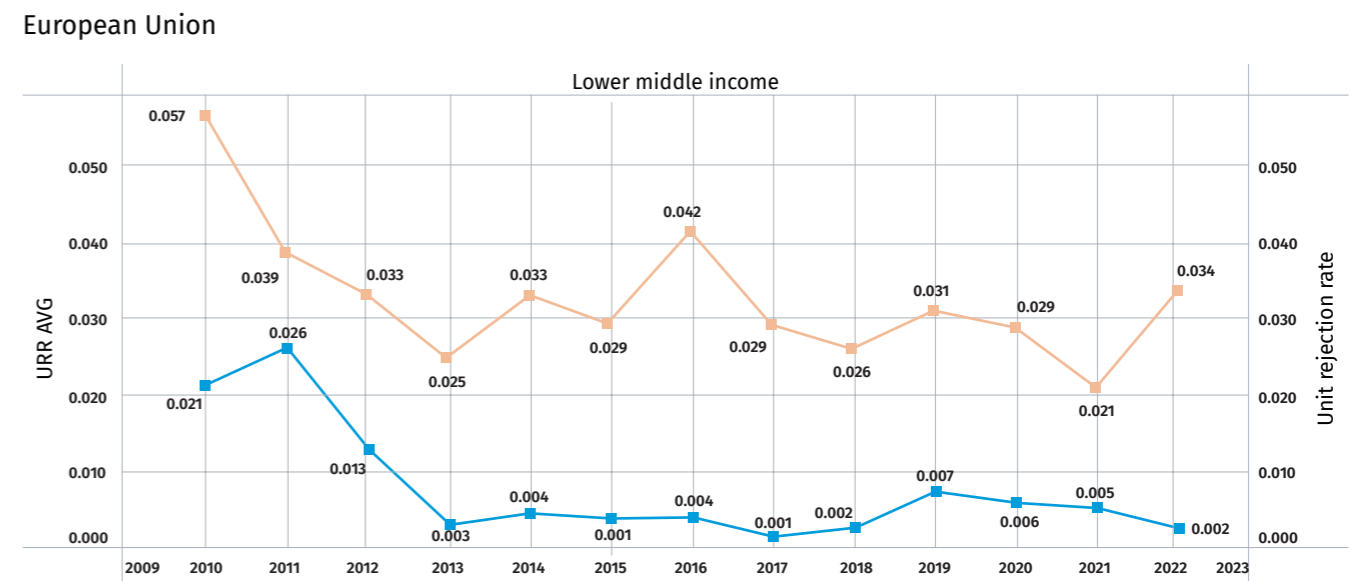
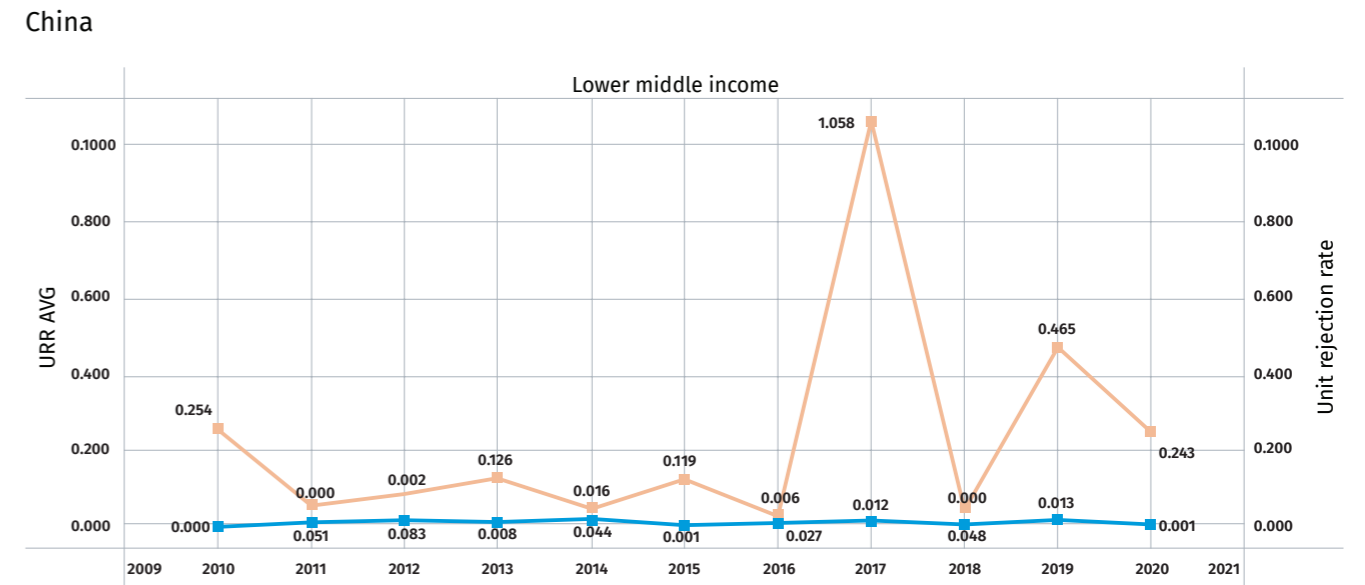
had increased quality and safety requirements for food products. Permits to allow the import of Ukrainian dairy products to Japan were agreed on in 2017. Subsequently, health certificates for the export of poultry, meat, and fresh eggs were also granted in 2019³⁴.

Aggregate Rejection Rate:

The Unit Rejection Rate (URR) is defined as the number of rejections per US\$ 1 million of imports. The colored charts represent the URR for Ukraine over the period of 2010 to 2022 for HS 1-23 food and feed products for a specific market. Ukraine's URR (the colored line) is being compared with the average URR for the World Bank income bracket to which Ukraine belongs to, which is the lower-middle income level (the grey line). The URR indicator accounts for changes in the volume of exports such that it provides a direct measure of the rate of non-compliance. A higher URR shows a higher rate of non-compliance of Ukraine with regard to food safety and quality regulations.



FIGURE 8: URR for Ukrainian Food and Feed HS 1-23 exports to the 3 markets, 2010 — 2022



33 Statistica. (2023). Export values of agricultural products from 2017 to 2022. <https://www.statista.com/statistics/1403371/ukraine-agricultural-exports/#:~:text=Agricultural%20export%20value%20from%20Ukraine%202017%202022&text=Ukraine%20exported%20agricultural%20products%20worth,percent%20from%20the%20previous%20year>

34 Embassy of Ukraine in Japan (2021, January 26). Japan-Ukraine Bilateral Trade. Trade and Economic Cooperation. <https://japan.mfa.gov.ua/en/partnership/trade-and-economic-cooperation/japan-ukraine-bilateral-trade>

According to **Figure 8**, Ukraine's URR in the European market for food and feed products fluctuated between 0.001 and 0.026 during the period of 2010 – 2022 with an average of 0.008, which means that for every US\$ 1 billion of imports from Ukraine to the EU, there was about eight rejections. This rate is very low and is lower than the average URR of all lower middle-income countries as classified by the World Bank. This indicates that Ukraine has made significant efforts to comply with the European food safety and quality regulations. In 2022, in particular, the URR value was lower than in the previous year. In the Chinese market, Ukraine's URR is stable, close to zero, and lower than the average URR for all lower middle-income countries. For the American market, Ukraine's URR was higher than the average URR for all lower middle-income countries from 2010 to 2016 and then became lower than the average. It also experienced peaks in 2011 (2.671), in 2013 (0.736), and in 2016 (0.442) and it'd be interesting to investigate fur-

ther the root causes behind these increases. Ukraine has clearly made efforts to reduce rejections in the US market as its URR value has continued to decrease since 2020 and reached a value of 0 in 2022.

Aggregate Rejection Rate:

The bar charts in **Figure 9** display the distribution of the Relative Rejection Rate (RRR) (log ratio) across markets for Ukraine for H1-23 food and feed export products in 2020. The RRR shown (log ratio) is the natural logarithm of the ratio of Ukraine's share of total rejections to share of total imports. The indicator provides a convenient measure of the performance of countries relative to one another in a year or over a period of time. A higher RRR (log ratio) for Ukraine implies poorer performance with regard to food safety and quality standards in that market relative to other markets.

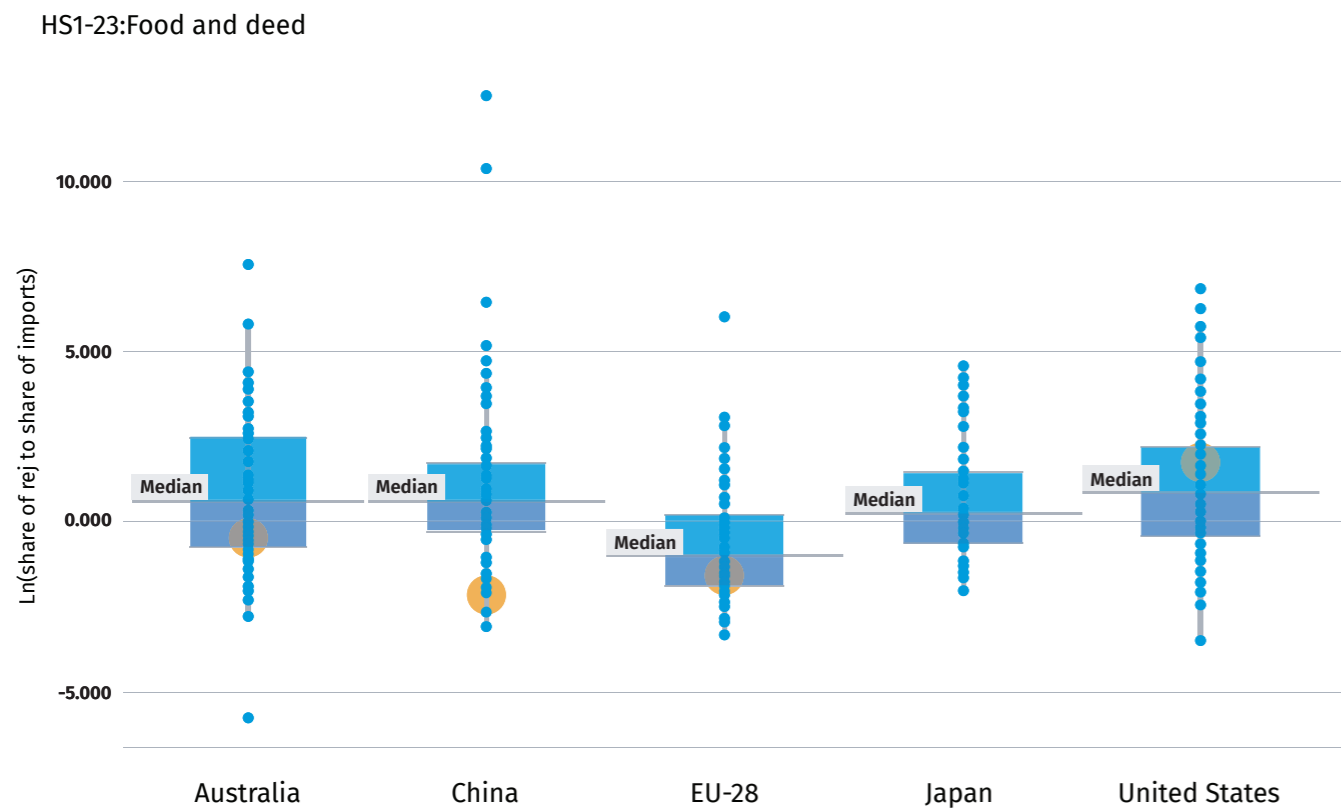
TABLE 4: RRR for HS 1-23 Food and Feed Ukrainian exports in 2020

China		EU-28		United States	
Median	Ukraine	Median	Ukraine	Median	Ukraine
0.541	-2.203	- 1.031	-1.629	0.858	1.697

The RRR as shown in **Figure 9** and **Table 4** is higher for Ukraine in 2020 in the American market compared to the other markets which implies a poorer performance with respect to food safety and quality standards in that market (median = 0.858 and Ukraine's RRR = 1.697) compared to other markets. Therefore, efforts must focus on improving the compliance with the American food safety regulations. Ukrainian ex-

ports performed better in the European market than in the other markets as well as better than other exporting countries to the same market on average and much better in the Chinese market (median = 0.541 and Ukraine's RRR = -2.203) in 2020. The RRR value for the European market further improved in 2022 as it reached a value of - 2.128, while the median value was -0.275.

FIGURE 9: RRR for HS 1-23 Food and Feed Ukrainian exports in 2020



REASONS FOR REJECTION

Frequency of reasons for rejection:

The frequency of reasons for rejections is the total counts of consignments rejected at the border of entry for a particular reason. Examples of possible reasons for rejection include labeling, hygienic condition, adulteration, missing document, additive, bacterial contamination, pesticide residues, veter-

inary drugs residues, mycotoxins, heavy metal, and packaging. The “aggregate frequency of reasons of rejections” can be different from “aggregate number of rejections” as a single consignment can be rejected on multiple grounds.

General reasons for rejection:

TABLE 5: Frequency of reasons for rejection (Number & %) of HS 1-23 Food & Feed Ukrainian exports to 3 markets during 2010 – 2020

Ukraine	China		EU		US		Total	
	Numbers	%	Numbers	%	Numbers	%	Numbers	%
Additive	8	10%	19	5%	135	13%	177	11%
Adulteration / missing document	45	57%	16	4%	204	19%	276	17%
Bacterial contamination	4	5%	51	14%	50	5%	136	8%
Heavy metal	7	9%	5	1%	0	0%	12	1%
Hygienic condition / controls	5	6%	16	4%	41	4%	71	4%
Labeling	1	1%	1	0%	590	56%	617	37%
Mycotoxin	0	0%	21	6%	0	0%	28	2%
Other contaminants	5	6%	142	38%	0	0%	151	9%
Other microbiological contaminants	0	0%	29	8%	0	0%	72	4%
Others	4	6%	56	15%	12	1%	81	5%
Packaging	0	0%	4	1%	0	0%	6	0%
Pesticide residues	0	0%	8	2%	14	1%	0	0%
Veterinary drugs residues	0	0%	6	2%	13	1%	20	1%
Total	79	100%	505	100%	1,093	100%	1,647	100%

FIGURE 10: Aggregate Frequency of Reasons for Rejection (%) for Food & Feed HS 1-23 Ukrainian exports for 3 markets during 2010 – 2020

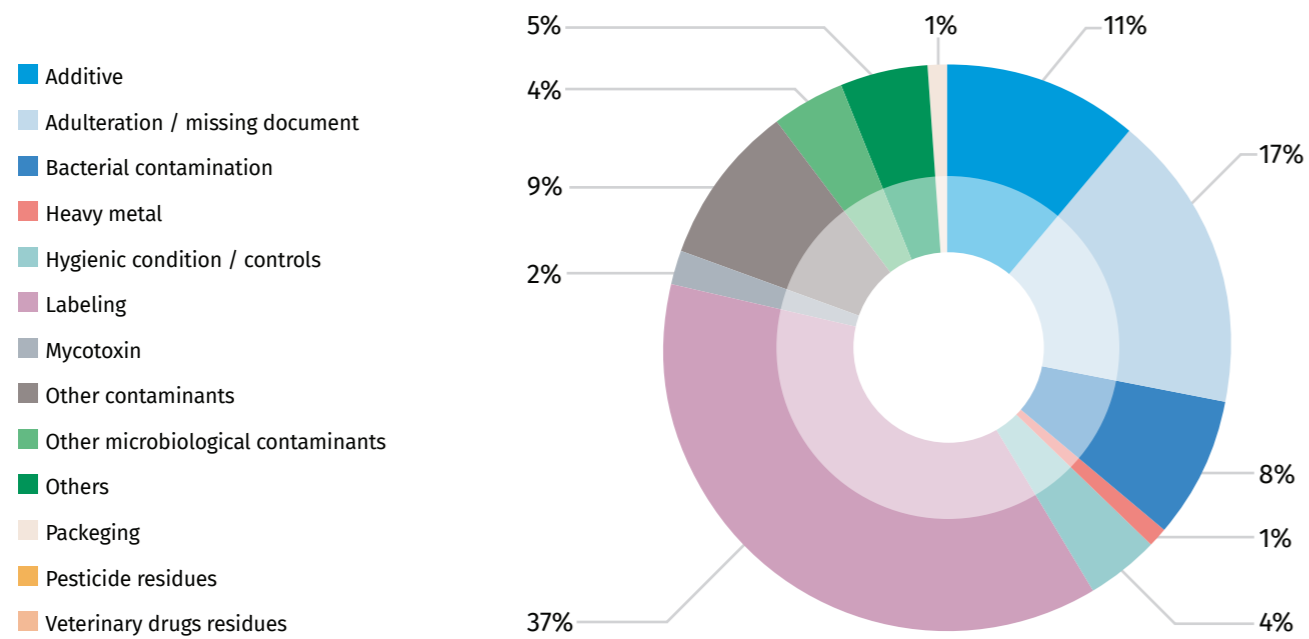


Figure 10 and **Table 5** show the aggregate frequency of reasons of rejections of food and feed products exported from Ukraine into the three markets during 2010 to 2020. The frequency of reasons for rejection is the total counts of consignments rejected at the border of entry for a particular reason. This indicator helps exporting countries identify areas of capacity building (solving key reasons for rejection) to attain or improve international trade standards compliance. The main causes of rejections for Ukraine during the

stated time period were labeling (37%) and adulteration/missing document (17%). Other causes were additive (11%), other contaminants (9%), and bacterial contaminants (8%). Ukraine therefore needs to strengthen its capacity in safety, hygiene, assessment and control techniques to comply with international regulations on the main causes of rejections: **labeling, adulteration/missing document**, and to a lesser degree **additives**.

TABLE 6: Frequency of reasons for rejection (Number & %) of HS 1-23 Food & Feed Ukrainian exports to 2 markets during 2010 – 2022

Ukraine	EU		US	
	Numbers	%	Numbers	%
Additive	34	7%	135	13%
Adulteration / missing document	21	4%	210	19%
Bacterial contamination	82	16%	50	5%
Heavy metal	5	1%	0	0%
Hygienic condition / controls	22	4%	44	4%
Labeling	1	0%	615	56%
Mycotoxin	28	6%	0	0%
Other contaminants	146	29%	0	0%
Other microbiological contaminants	72	14%	0	0%
Others	65	13%	12	1%
Packaging	6	1%	0	0%
Pesticide residues	16	3%	14	1%
Veterinary drugs residues	7	1%	13	1%
Total	505	100%	1,093	100%

Aggregate Rejection Rate:

Figure 11 illustrates the reasons for rejection of Ukrainian food and feed products in the EU and US markets.

FIGURE 11: illustrates the reasons for rejection of Ukrainian food and feed products in the EU and US markets

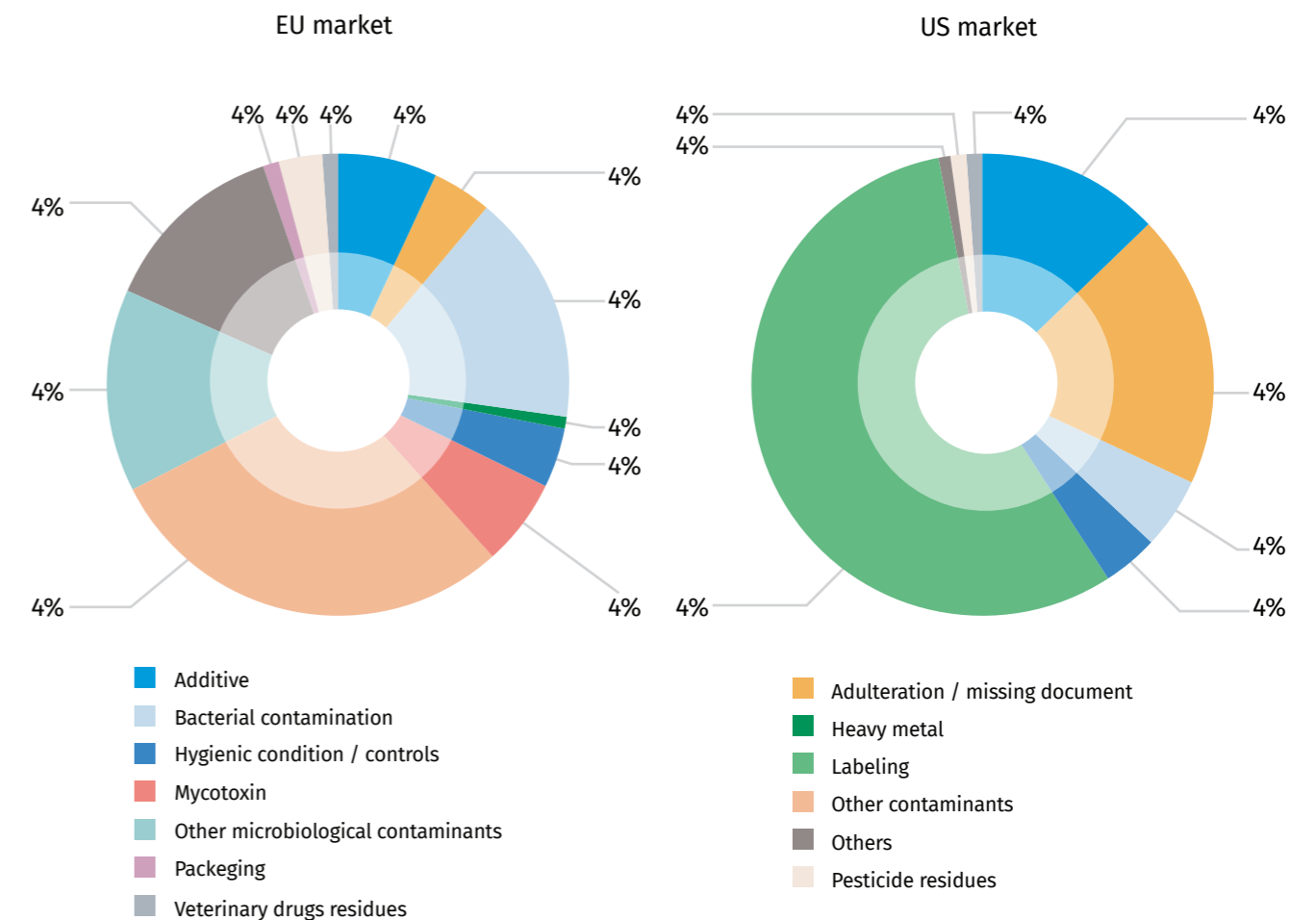


Table 6 and **Figure 11** demonstrate that for the American market, the most common reasons for rejection of food and feed Ukrainian exports during the period of 2010 to 2022 were **labeling** (56%), **adulteration/missing document** (19%), and additives (13%). The U.S. Department of Agriculture inspectors and the Food and Drug Administration oversee the production on U.S. soil of more than 80% of foodstuffs – fish, seafood, produce, and dairy products. The measures enforced by the USDA and FDA cost a total of \$2 billion (2019). This high price tag is justified by the excellent performance of the US inspection regime. Ukraine must strengthen its capacity to export agricultural products that comply with the US labeling requirements. In the EU market, the most common rea-

sons for rejections during the same time period were other contaminants (29%), bacterial contamination (16%), and other microbiological contaminants (14%), and others (13%). The rejections caused by **bacterial, microbiological, and chemical contamination** represent almost two-third of the total causes of rejections in the European market. In order to prevent the risk of bacterial contamination such as the one that caused the E. coli 0104 outbreak in Germany and 15 other countries in 2011 which affected 3,900 people and resulted in 51 deaths, safety practices should be followed at each step of the food chain from growing to harvesting to processing and storing. This is particularly important for produce as it's consumed raw³⁵.

35 Faour-Klingbeil, D., & Todd, E. C. D. (2018). A Review on the Rising Prevalence of International Standards: Threats or Opportunities for the Agri-Food Produce Sector in Developing Countries, with a Focus on Examples from the MENA Region. *Foods* (Basel, Switzerland), 7(3), 33. <https://doi.org/10.3390/foods7030033>

Reasons for rejection for fruit and nuts, edible, peel of citrus fruit or melons (HS 08) by market:

Fruit and nuts products are among the most exported products from Ukraine and in the first quarter of 2024 the revenue from the export of Ukrainian fruits and nuts increased by 47% compared to the same period the previous year, reaching \$87 million. The highest revenue stemmed from walnuts with \$38 million,

frozen strawberry crops and fruits with \$20 million, and apples and pears with \$11 million³⁶. As export rejections are more likely to occur for fruit and nut products than for other products such as processed food, it is worthwhile delving into the main reasons for rejections of these commodities.

TABLE 7: Frequency of reasons for rejection (Number & %) of Ukrainian fruit and nuts, edible; peel of citrus fruit or melons (HS 08) exports to the 2 markets during 2010 – 2022

Ukraine HS 08	EU		US	
	Numbers	%	Numbers	%
Additive	0	0%	5	7%
Adulteration / missing document	0	0%	26	37%
Bacterial contamination	5	22%	0	0%
Heavy metal	2	9%	0	0%
Hygienic condition / controls	1	4%	6	9%
Labeling	0	0%	33	47%
Mycotoxin	4	17%	0	0%
Other contaminants	3	13%	0	0%
Other microbiological contaminants	5	22%	0	0%
Others	3	13%	0	0%
Packaging	0	0%	0	0%
Pesticide residues	0	0%	0	0%
Veterinary drugs residues	0	0%	0	0%
Total	23	100%	70	100%

FIGURE 12: Frequency of reasons for rejection (%) of Ukrainian fruit and nuts (HS 08) exports to the 2 markets during 2010 – 2022

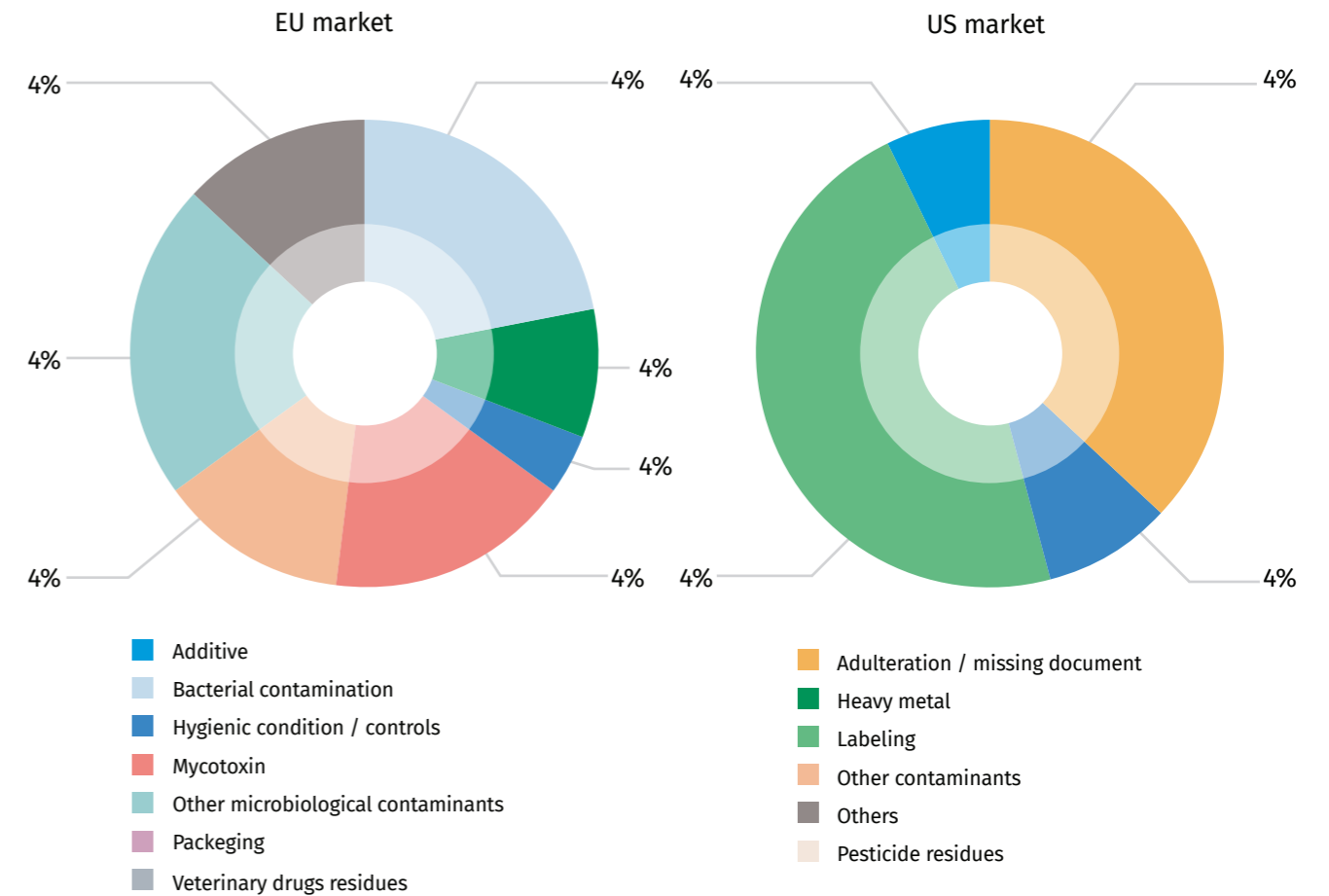


Table 7 and **Figure 12** demonstrate that for the American market, the most common reasons for rejection of Ukrainian fruit and nuts exports during the 2010 to 2022 period were **labeling (47%)** and **adulteration/**

missing document (37%). In the European market, the reasons for rejection during the same time period were quite varied but mostly caused by **bacterial, microbiological, and chemical contamination**.



36 Tridge (2024, April 24). Revenues from the export of fruits and nuts from Ukraine jumped by nearly 50 percent. <https://www.tridge.com/news/revenues-from-the-export-of-fruits-and-nuts--jlalsu>

Reasons for rejection for oil seeds and oleaginous, miscellaneous grains, seed and fruit, industrial or medicinal plants, straw and fodder (HS 12) by market:

In 2022, the EU was Ukraine's largest trading partner, accounting for 55.2% of its trade in goods amounting to €57.8 billion. Ukraine's top exports to the EU by value were cereals (representing 16.5% of total exports), oil seeds (11.7%), animal or vegetable fats and oils (10.7%), iron and steel (9.3%), and ores, and slag

and ash (8.4%). In 2022, Ukraine managed to overtake the US and became the third-biggest source of EU agrifood imports³⁷. Therefore, as one of the top exported agrifood commodity, it's useful to examine in greater detail the reasons for rejections of Ukrainian oilseeds exported to the EU and to the US.

TABLE 8: Frequency of reasons for rejection (Number & %) of Ukrainian oil seeds and oleaginous, miscellaneous grains, seed and fruit, industrial or medicinal plants, straw and fodder (HS 12) exports to 2 markets during 2010 – 2022

Ukraine HS 12	EU		US	
	Numbers	%	Numbers	%
Additive	0	0%	0	7%
Adulteration / missing document	2	1%	18	69%
Bacterial contamination	3	2%	0	0%
Heavy metal	0	0%	0	0%
Hygienic condition / controls	0	0%	0	0%
Labeling	0	0%	8	31%
Mycotoxin	4	3%	0	0%
Other contaminants	131	84%	0	0%
Other microbiological contaminants	7	4%	0	0%
Others	4	3%	0	0%
Packaging	0	0%	0	0%
Pesticide residues	5	3%	0	0%
Veterinary drugs residues	0	0%	0	0%
Total	156	100%	26	100%

FIGURE 13: Frequency of reasons for rejection of Ukrainian oil seeds and oleaginous, miscellaneous grains, seed and fruit (HS 12) exports by market during 2010 – 2022

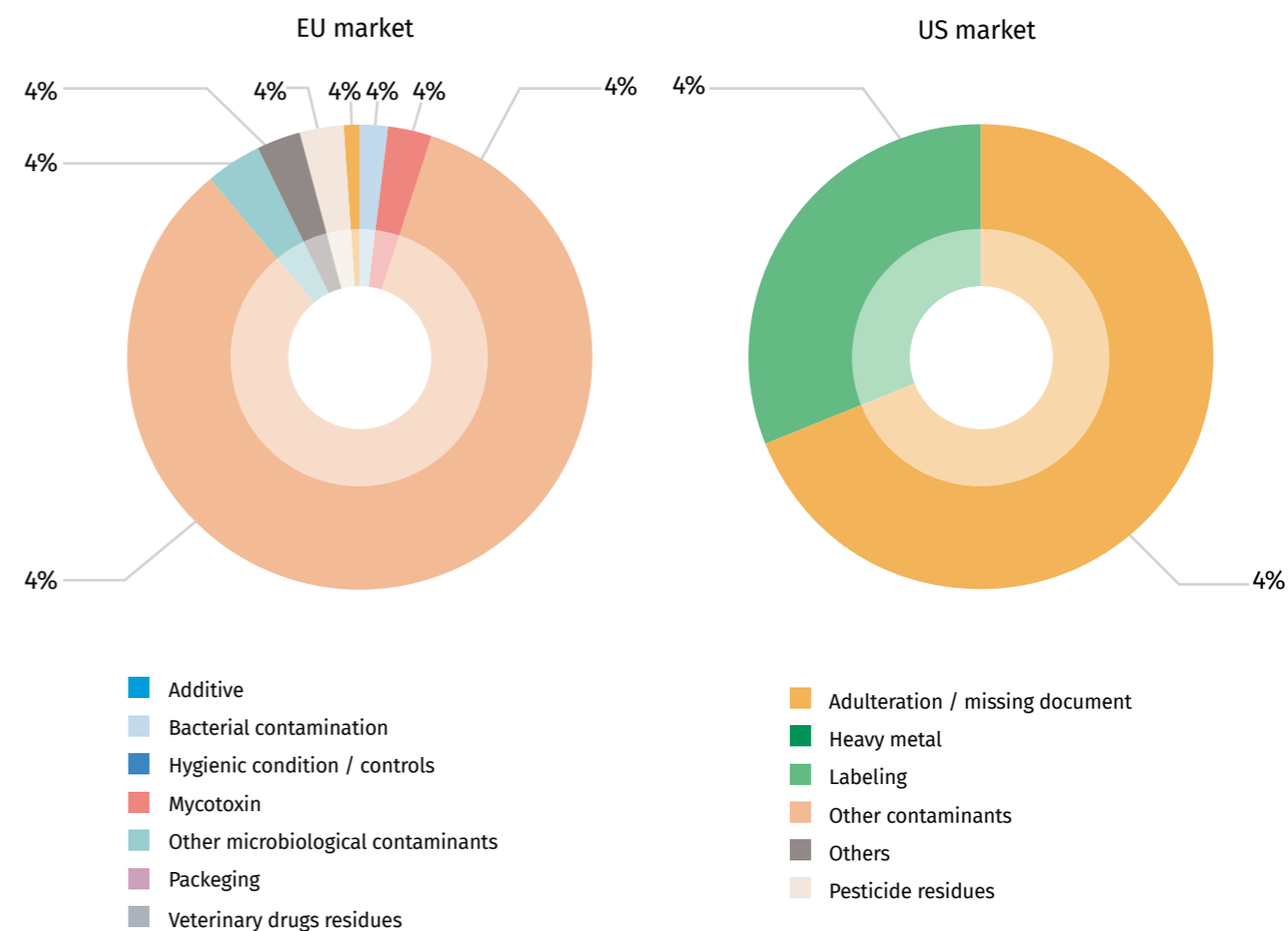


Figure 13 and Table 8 illustrate that for the European market, the most common reason for rejection of Ukrainian oilseeds exports during the period of 2010 to 2022 was other contaminants (84%). For the American market, the most common reasons for rejection

during the same time period for HS 12 exports were **adulteration/missing document** (69%) and **labeling** (31%). It's also interesting to note that the number of rejections from the European market for oilseeds far exceeded the ones from the American market.



37 European Commission. Ukraine. https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/ukraine_en

A. COMPARATIVE ANALYSIS

Country comparison:

TABLE 9: Main indicators of the 3 countries – Ukraine, Georgia and Moldova

	Ukraine	Georgia	Moldova
GDP in billion USD – 2022	160.5	24.78	14.51
Total population in million – 2022	38	3.71	2.54
GDP per capita in USD – 2022	4,534	6,675	5,714
Value added by Agriculture, Forestry and Fishery – 2022	8.2%	6%	8.3%
Human Development Index – 2022	0.734	0.814	0.763
Logistics Performance Index (Overall) – 2023	2.7	2.7	2.5
Food Safety Index – 2020	60	40	N/A
Percentage of population employed in agriculture – 2021	15%	40%	55%
Main exporting agricultural products – 2022	Corn, seed oils, wheat, rape-seed, sunflower seeds	Wine, hard liquor, other nuts, flavored water, rolled tobacco	Corn, sunflower seeds, seed oils, wine, apples and pears, wheat
Main trading partners – 2022	Poland, China, Germany, Türkiye, Romania	Russia, China, Türkiye, Azerbaijan, USA	Ukraine, Romania, Italy, Russia, Türkiye, Germany, China

While Ukraine has the largest economy among the three countries of Ukraine, Georgia, and Moldova, these nations share multiple economic indicators and enjoy a privileged trade relationship with the EU. Additionally, since 2014, the three countries have implemented the Deep and Comprehensive Free Trade Area (DCFTA), which includes tariff reductions and

duty-free import quotas aimed at facilitating trade between them and the EU, including the trade in agricultural products. Hence, it is interesting to compare the global performance in complying with the food safety regulations of major markets of Ukraine with that of Georgia and Moldova.



Aggregate rejection rate:

The Aggregate Rejection Rate is shown for Ukraine, Georgia, and Moldova in Table 10.

TABLE 10: Aggregate number of rejections of Food and Feed (HS 1-23) exports during 2010 – 2020

Ukraine													
Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	%
Australia	3	0	7	2	0	1	0	2	2	0	2	19	2%
China	0	0	1	4	12	1	7	14	0	32	5	76	10%
EU-28	44	94	67	14	23	17	18	9	16	60	38	400	51%
Japan	0	1	1	0	0	0	1	1	0	1	0	5	1%
United States	27	49	27	30	15	15	43	26	13	9	29	283	36%
Total	74	144	103	50	50	34	69	52	31	102	74	783	100%

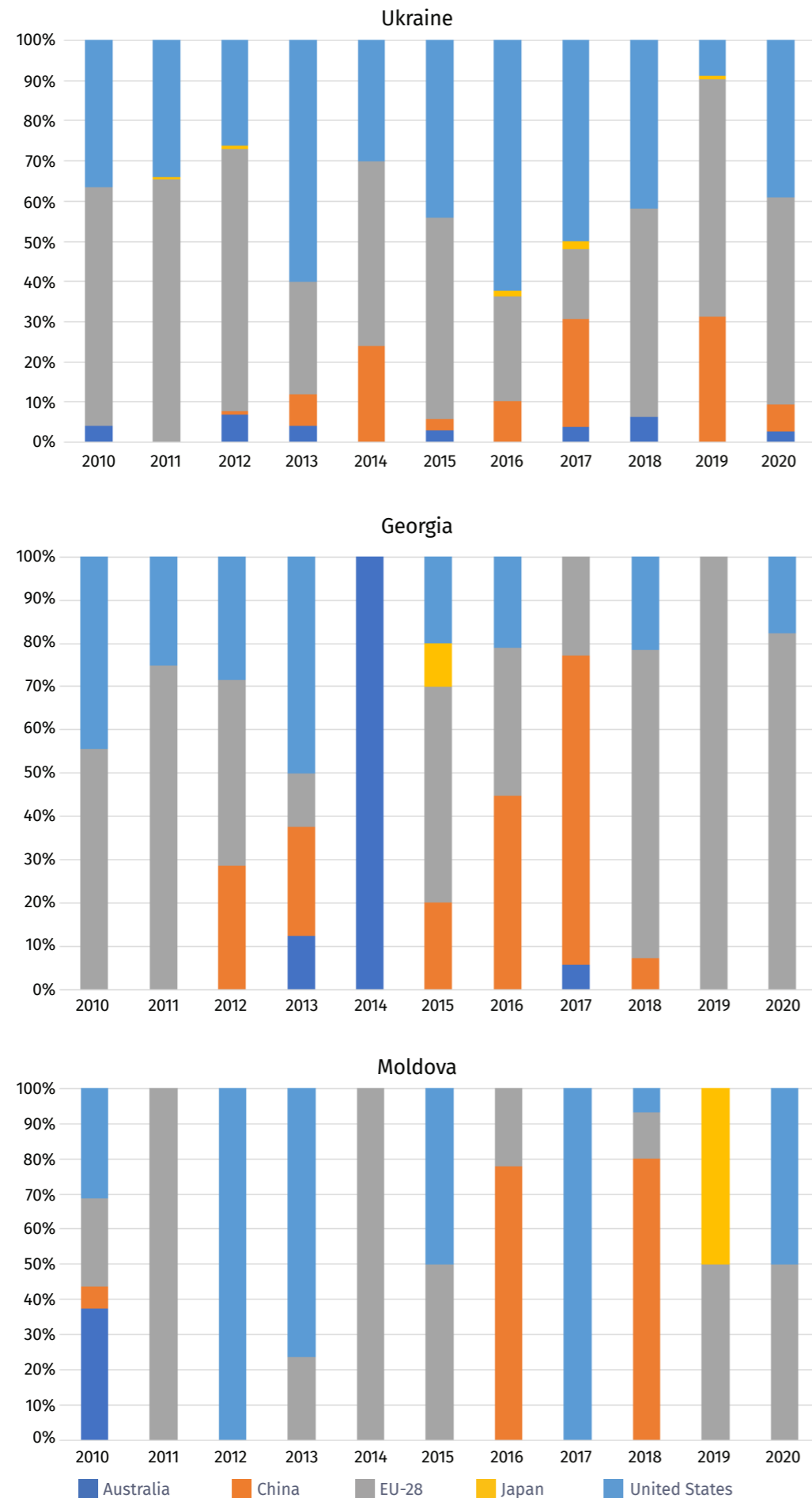
Georgia													
Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	%
Australia	0	0	0	1	2	0	0	2	0	0	0	5	3%
China	0	0	2	2	0	2	17	25	1	0	0	49	29%
EU-28	5	9	3	1	0	5	13	8	10	17	14	85	50%
Japan	0	0	0	0	0	1	0	0	0	0	0	1	1%
United States	4	3	2	4	0	2	8	0	3	0	3	29	17%
Total	9	12	1	8	2	10	38	35	14	17	17	169	100%

Moldova													
Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	%
Australia	6	0	0	0	0	0	0	0	0	0	0	6	6%
China	1	0	0	0	0	0	7	0	12	0	0	20	20%
EU-28	4	24	0	4	4	1	2	0	2	2	3	46	46%
Japan	0	0	0	0	0	0	0	0	0	2	0	2	2%
United States	5	0	1	13	0	1	0	1	1	0	3	25	25%
Total	16	24	1	17	4	2	9	1	15	4	6	99	100%

Table 10 and Figure 14 illustrate that the EU border rejections have the highest share of all rejections in the five markets during 2010 to 2020 for Ukrainian, Georgian, and Moldovan exports at 51%, 50%, and 46% respectively. For the other markets, border rejections for goods entering the US market represent a

third at most of total rejections during the same time period (36% for Ukraine, 17% for Georgia, and 25% for Moldova). We can therefore conclude that Ukraine, Georgia, and Moldova should first focus on reducing border rejections of food and feed exports by the European authorities.

FIGURE 14: Share of rejections of Food and Feed (HS 1-23) exports by market, 2010 – 2020



Based on **Figure 14**, the share of EU rejections, compared to other markets, has consistently been high for Ukrainian and Georgian exports from 2010 to 2020. In the case of Moldova, the overall number of rejections has been decreasing since 2019, which is commendable considering the increasing volume of Moldovan food and feed exports during the studied decade. While both Georgia and Moldova had no rejections in the Chinese market in 2019 and 2020, Ukraine experienced a spike with 32 rejections in 2019 in the same market. As for the American market, the number of

rejections for Moldovan and Georgian exports has remained consistently low. In the next section, another indicator, known as the Unit Rejection Rate, will be presented. This metric allows for a true measure of non-compliance of products from a specific country in a particular market, regardless of whether the number of exports into that market has increased or decreased.

Table 11 includes the rejection data sets for 2021 and 2022 for all the markets except for the Chinese market.

FIGURE 14: Share of rejections of Food and Feed (HS 1-23) exports by market, 2010 – 2020

Ukraine

Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Australia	3	0	7	2	0	1	0	2	2	0	2	0	1	20
China	0	0	1	4	12	1	7	14	0	32	5	N/A	N/A	76
EU	44	94	67	14	23	17	18	9	16	60	38	42	33	475
Japan	0	1	1	0	0	0	1	1	0	1	0	0	0	5
United States	27	49	27	30	15	15	43	26	13	9	29	14	0	297
Total	74	144	103	50	50	34	69	52	31	102	74	56	34	873

Georgia

Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Australia	0	0	0	1	2	0	0	2	0	0	0	0	0	5
China	0	0	2	2	0	2	17	25	1	0	0	N/A	N/A	49
EU	5	9	3	1	0	5	13	8	10	17	14	9	9	132
Japan	0	0	0	0	0	1	0	0	0	0	0	0	0	1
United States	4	3	2	4	0	2	8	0	3	0	3	0	0	30
Total	9	12	1	8	2	10	38	35	14	17	17	9	9	217

Moldova

Markets	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Australia	6	0	0	0	0	0	0	0	0	0	0	0	0	6
China	1	0	0	0	0	0	7	0	12	0	0	N/A	N/A	20
EU	4	24	0	4	4	1	2	0	2	2	3	1	7	54
Japan	0	0	0	0	0	0	0	0	0	2	0	0	0	2
United States	5	0	1	13	0	1	0	1	1	0	3	0	0	25
Total	16	24	1	17	4	2	9	1	15	4	6	1	7	107

Table 11 shows that there was an increase in rejections in the EU market in 2021 compared to the previous year for Ukraine and in 2022 compared to the previous year for Moldova. However, Georgia managed to decrease its number of rejections in the same market in 2021 and

2022 compared to 2020. For the American market, a decrease from 14 to 0 can also be noted from 2021 to 2022 for Ukraine. For Moldova and Georgia, there were no rejections during those years for the American market.

Unit Rejection Rate:

The Unit Rejection Rate (URR) is defined as the number of rejections per USD 1 million of imports. The URR indicator accounts for changes in the volume of exports such that it provides a direct measure of the rate of non-compliance. The URR is shown for Ukraine, Georgia, and Moldova in **Figure 15**.

FIGURE 15: URR for Food and Feed (HS 1-23) exports to the 5 Markets, 2010 – 2022



Relative Rejection Rate Indicator:

According to **Figure 15**, all three countries have URR well below the average URR for their respective World Bank income groups across the five markets. Ukraine consistently maintains a URR below the average URR for lower middle-income countries, except for the Australian market during 2012 and 2013. However, there is room for improvement in the American market. Similarly, Georgia demonstrates a comparable performance to Ukraine, with some URR values being low or below average, except for a couple of instances of high URR values in the Australian market. Despite reaching the status of an upper middle-income country in 2021, Moldova's URR values remained well below the average URR of that income group. The only exception is the Chinese market, where there were spikes in URR values in 2010, 2016, and 2018.

The bar charts in **Figure 16** display the distribution of the Relative Rejection Rate (log ratio) across markets for the exporting countries (Ukraine, Georgia, and Moldova) for food and feed (HS 1-23) exports in 2022. The Relative Rejection Rate (RRR) shown (log ratio) is the natural logarithm of the ratio of a country's share of total rejections to share of total imports. The indicator provides a convenient measure of the performance of countries relative to one another in a year or over a period. A higher RRR (log ratio) for a country implies poorer performance with regards to food safety and quality standards in that market relative to the other markets.

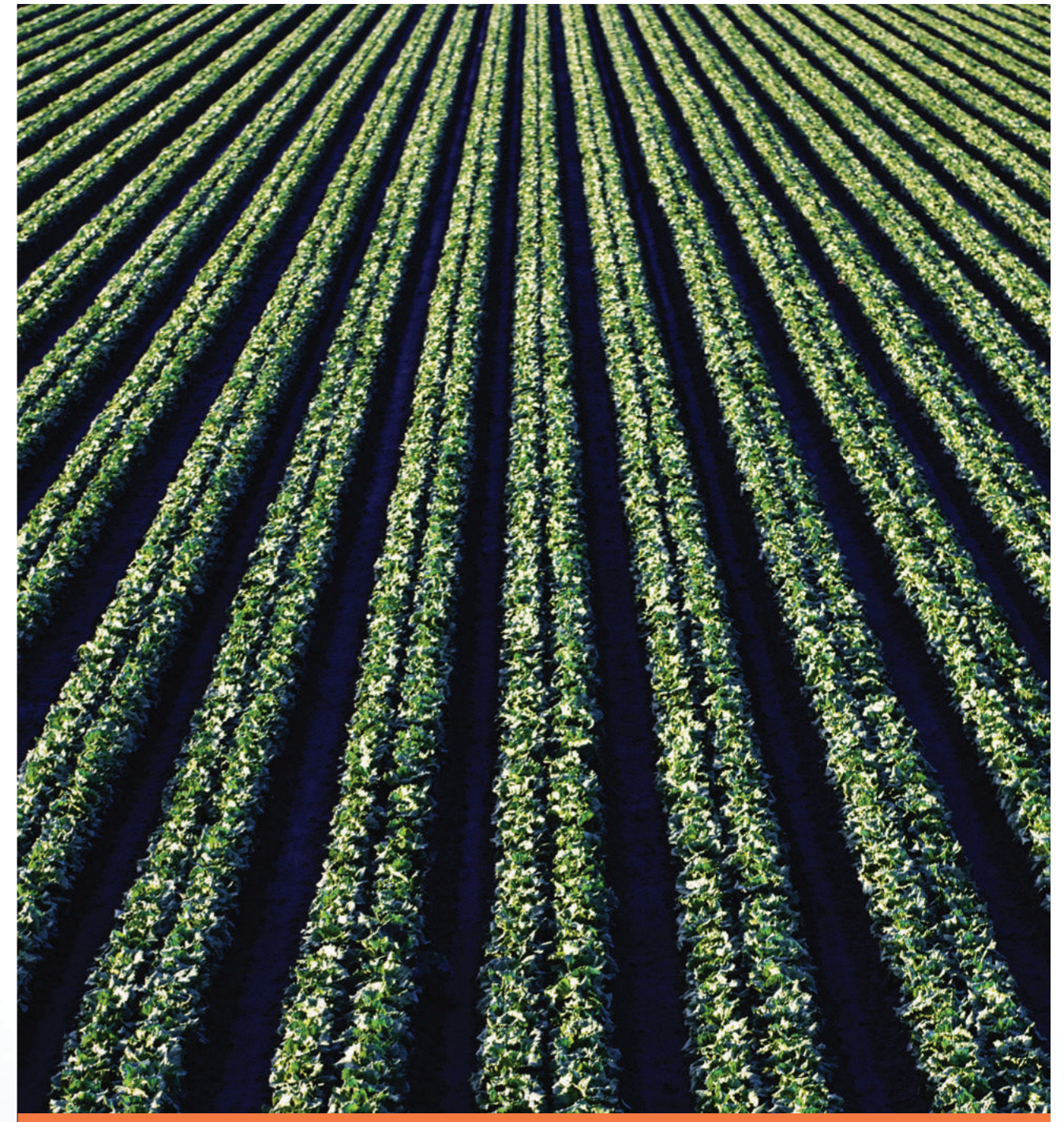
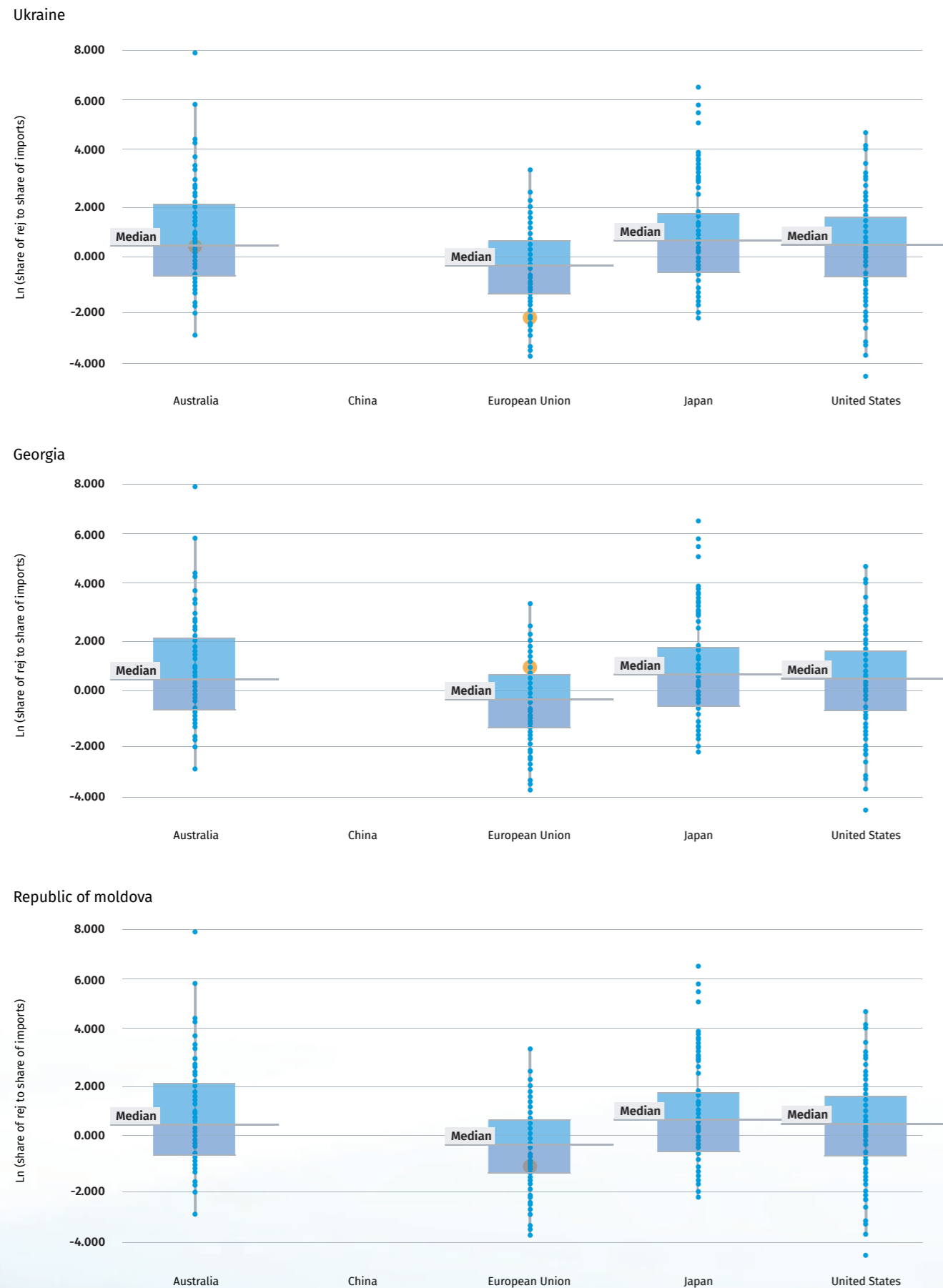


FIGURE 16: RRR for Food and Feed (HS 1-23) exports for Ukraine, Georgia and Moldova in 2022



As only RRR values for the European market are available for 2022, this analysis will focus solely on this market. According to **Figure 16**, in the European market, Ukraine and Moldova demonstrate a comparable performance, with both countries having RRR values

significantly lower than the median RRR. Ukraine's performance slightly surpasses that of Moldova. Conversely, Georgia needs to enhance its compliance with European food safety regulations, as its RRR was 0.949, whereas the median value was -0.275.

Relationship between the natural logarithm of share of rejections to the natural logarithm of share of imports

The scatterplot in **Figure 17** presents the relationship between the natural logarithm of share of rejections to the natural logarithm of share of imports for the food and feed (HS 1-23) products for 2022 for a given market. In the scatterplot, exporting countries are identified using ISO two-letter abbreviation codes. In

addition, the countries above the 45-degree line are considered worse performers [i.e. $\ln(\text{share of rejections})$ is greater than $\ln(\text{share of imports})$] than those below the line, as their $\ln(\text{share of rejections})$ is less than $\ln(\text{share of imports})$.

FIGURE 17: Relationship between the natural logarithm of share of rejections to the natural logarithm of share of imports for HS 1-23 Food and Feed exports in 2022

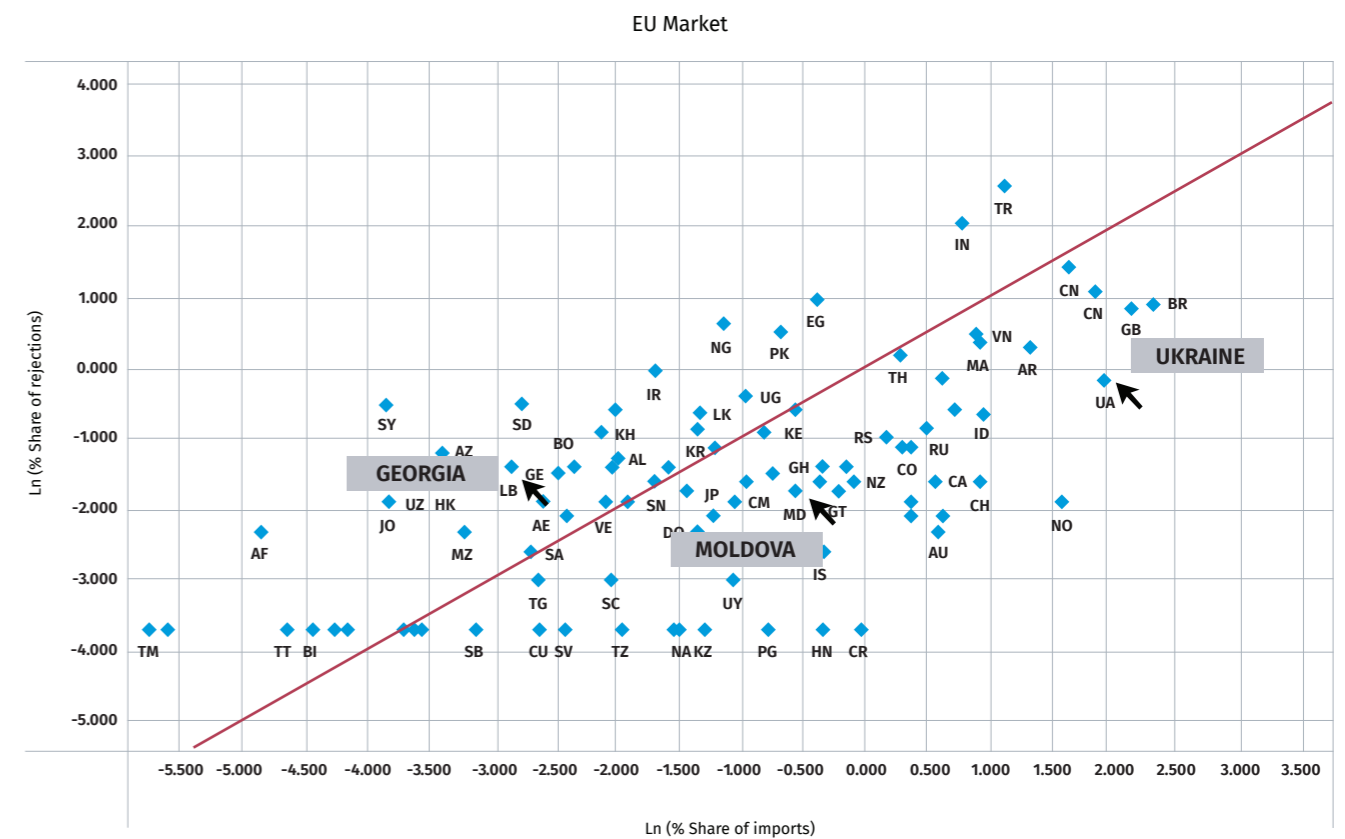


Figure 17 demonstrates that Ukraine outperformed Moldova and Georgia in the European market. Although Moldova was positioned below the 45-degree line due to its $\ln(\text{share of rejections})$ being lower than $\ln(\text{share of imports})$ in 2022, it still lagged behind Ukraine in terms of performance. On the other

hand, Georgia was positioned above the 45-degree line. These findings align with the other indicators analyzed above, confirming that Georgia needs to enhance its compliance with the European food safety regulations.

Reasons for rejection – comparative analysis:

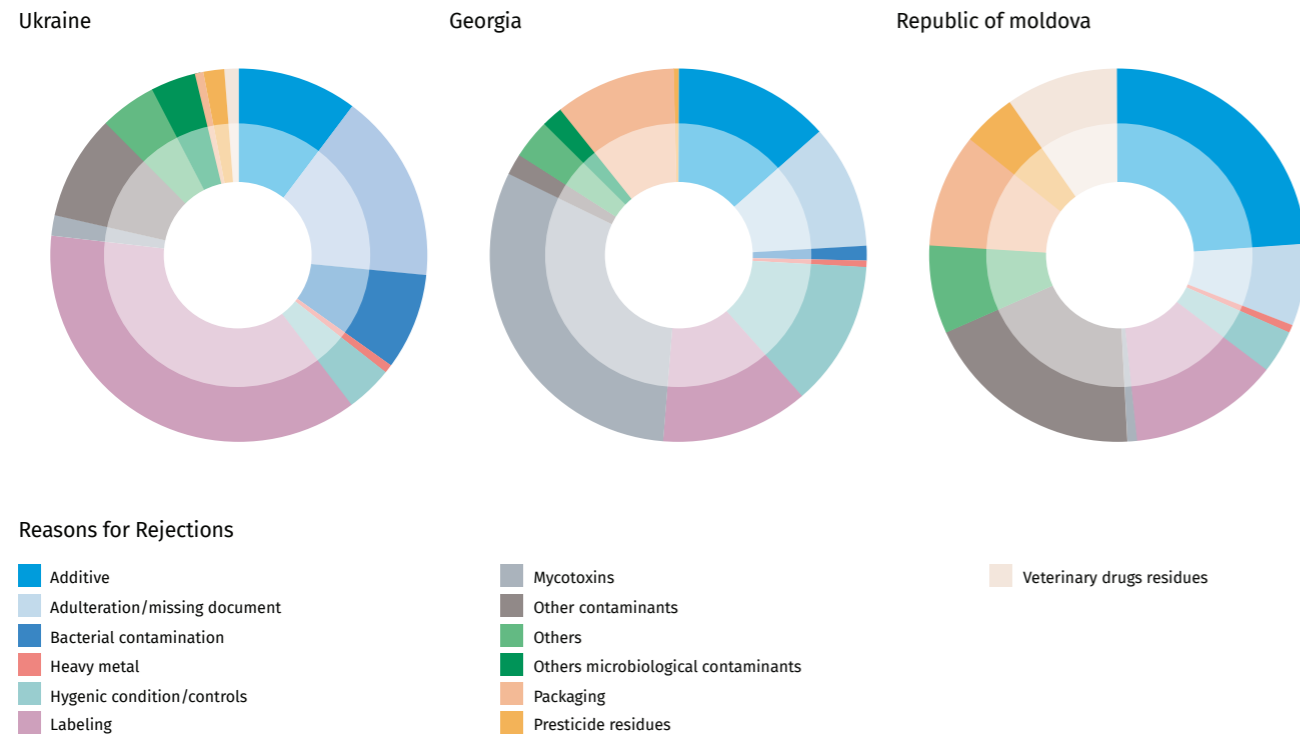
TABLE 12: Frequency of reasons for rejection (Number & %) of Food & Feed (HS 1-23) exports to the 3 markets during 2010 – 2022

Ukraine	China		EU		US		Total	
	Numbers	%	Numbers	%	Numbers	%	Numbers	%
Additive	8	10%	34	7%	135	12%	177	11%
Adulteration / missing document	45	57%	21	4%	210	19%	276	17%
Bacterial contamination	4	5%	82	16%	50	5%	136	8%
Heavy metal	7	9%	5	1%	0	0%	12	1%
Hygienic condition / controls	5	7%	22	4%	44	4%	71	4%
Labeling	1	1%	1	0%	615	56%	617	37%
Mycotoxin	0	0%	28	6%	0	0%	28	2%
Other contaminants	5	6%	146	29%	0	0%	151	9%
Other microbiological contaminants	0	0%	72	14%	0	0%	72	4%
Others	4	5%	65	13%	12	1%	81	5%
Packaging	0	0%	6	1%	0	0%	6	0%
Pesticide residues	0	0%	16	3%	14	2%	0	0%
Veterinary drugs residues	0	0%	7	2%	13	1%	20	1%
Total	79	100%	505	100%	1,093	100%	1,647	100%

Moldova	China		EU		US		Total	
	Numbers	%	Numbers	%	Numbers	%	Numbers	%
Additive	0	0%	3	5%	33	47%	36	27%
Adulteration / missing document	2	10%	3	5%	6	9%	11	8%
Bacterial contamination	0	0%	0	0%	0	0%	0	0%
Heavy metal	0	0%	1	2%	0	0%	1	1%
Hygienic condition / controls	0	0%	6	10%	0	0%	6	5%
Labeling	0	0%	0	0%	14	20%	14	11%
Mycotoxin	0	0%	1	2%	0	0%	1	1%
Other contaminants	1	5%	28	49%	0	0%	29	22%
Other microbiological contaminants	0	0%	0	0%	0	0%	0	0%
Others	3	15%	9	16%	0	0%	12	9%
Packaging	14	70%	1	2%	0	0%	15	11%
Pesticide residues	0	0%	4	7%	3	4%	7	5%
Veterinary drugs residues	0	0%	1	2%	14	20%	0	0%
Total	20	100%	57	100%	70	100%	132	100%

Georgia	China		EU		US		Total	
	Numbers	%	Numbers	%	Numbers	%	Numbers	%
Additive	11	23%	18	13%	15	11%	44	16%
Adulteration / missing document	1	2%	1	1%	32	25%	34	12%
Bacterial contamination	0	0%	2	1%	2	2%	4	1%
Heavy metal	1	2%	1	1%	0	0%	2	1%
Hygienic condition / controls	0	0%	2	1%	39	30%	0	0%
Labeling	0	0%	0	0%	36	28%	36	13%
Mycotoxin	0	0%	100	72%	0	0%	100	36%
Other contaminants	1	2%	3	2%	1	1%	5	2%
Other microbiological contaminants	0	0%	6	4%	0	0%	6	2%
Others	2	4%	5	4%	3	2%	10	4%
Packaging	33	67%	0	0%	1	1%	34	12%
Pesticide residues	0	0%	1	1%	0	0%	1	0%
Veterinary drugs residues	0	0%	0	0%	0	0%	0	0%
Total	49	100%	139	100%	129	100%	276	100%

FIGURE 18: Frequency of Reasons for Rejection of Food and Feed (HS 1-23) exports for Ukraine, Georgia, and Moldova during 2010 – 2022



As the rejection data sets for 2021 and 2022 in the Chinese market are not yet available, caution should be exercised when interpreting the total percentages calculated in **Table 12**. This is because the values for the aggregate reasons for rejections for Ukraine, Georgia, and Moldova are missing for the Chinese market in 2021 and 2022. According to **Table 12** and **Figure 18**, the percentage of rejections due to **labeling** is relatively high for all three countries in the US market from 2010 to 2022, with Ukraine having the highest

rate at 56%. Georgia can learn from both Ukraine and Moldova on how to reduce rejections due to **mycotoxins** in the EU market, as it accounted for 72% of its reasons for rejections in that market. As for Moldova, its most prominent issue stems from **additives**, followed by other contaminants. In the Chinese market, both Georgia and Moldova's rejections primarily occur due to **packaging**. Both countries could therefore collaborate to target this non-compliance issue.



RECOMMENDATIONS

In the light of the global pandemic, the relevance of quality and standards has become apparent highlighting the need for adequate infrastructure and internationally recognized conformity assessment services. As the EU is currently Ukraine's main trading partner accounting for the majority of its exports of agricultural products, it is necessary for Ukraine to develop its infrastructure at a national level in order to ensure that European and international market requirements are met and that producers can prove that their products comply with international standards and technical regulations through the entire value chain from production to packaging, conservation, transport, export procedures, etc. Based on the analysis of the border rejection data for Ukrainian food and feed exports, several recommendations can be made:

Strengthen the Quality Infrastructure System:

- » **Standards promotion and development:** In order to reduce the number of export rejections, it is imperative to increase the compliance of farmers with international environmental and food safety standards by launching trainings, workshops, and coaching programs on standards, on the role of accredited conformity assessment activities and practical methodologies on how to implement standards. A large proportion of farmers in Ukraine lack knowledge about standards and the role of accreditation. Sectoral trainings are also important, as well as close cooperation with associations and technical committees.
- » **Standards acquisition:** Most European and international standards are adopted in Ukraine by a method of confirmation, which presents a significant challenge for businesses as the original language is English. This language barrier hinders the use of these standards in their activities. Therefore, there is a pressing need to translate these standards into Ukrainian. Additionally, there is potential to enhance the situation by facilitating the selection of necessary standards for companies, including Small and Medium Enterprises (SMEs), enabling them to choose internationally relevant standards for entering international markets. Moreover, the digitalization process of the Ukrainian Accreditation System (UAS) should be completed to ensure easy and straightforward access for acquiring standards.

» **National food safety surveillance system:** Strengthening the national food safety surveillance system and mobilizing all official controls in collaboration with all relevant stakeholders. Moreover, the effectiveness of control depends on the competencies of government officials as well as farmers. Their expertise can be improved by providing trainings on food sanitary risk analysis and on learning how Good Manufacturing Practices (GMP) and Good Hygiene Practices (GHP) could be applied in various food chains. Knowledge of international standards, such as Global GAP, organic standards for primary production, ISO 22000, HACCP, SQF, IFS for processing enterprises, applying modern TXNG technology such as QR code, blockchain, etc. should also be taught and promoted. Due to the Russian invasion, market surveillance inspections and controls have been suspended which has limited the effectiveness of surveillance and may affect the safety of products³⁸. Once the war is over, support could be provided to the State Service of Ukraine on Food Safety and Consumer Protection to strengthen the national food safety system and improve and increase the number of market surveillance inspections.

» **Addressing regulatory changes and future standards:** Apart from hygiene factors, a significant number of rejections came from regulatory changes. This does not indicate a lack of compliance as an issue but rather serves as evidence of the ever-evolving nature of trade relations. To better equip exporting countries in complying with potential new standards and regulations, UNIDO could incorporate a projection of forthcoming standard changes by harnessing the power and knowledge found using innovative digital solutions and gathering insights stemming from mining large trade data sets. For Ukraine, UNIDO could facilitate the implementation of GRP to support government institutions often overwhelmed by ongoing changes to food safety regulations. Consequently, as these institutions are responsible for issuing the regulations that agri-SMEs must comply with, this would result in better coordination between the central government and local authorities regarding food and safety regulations. It is important to note that the current analysis of the SCA tool does not encompass voluntary standards, such as sustainability and traceability standards. However, it is essential to recognize that these standards, particularly in terms of traceability and sustain-

38 Food Safety News. (2023). EU reports on food safety progress in Ukraine and other nations. <https://www.foodsafetynews.com/2023/12/eu-reports-on-food-safety-progress-in-ukraine-and-other-nations/>

ability, have the potential to evolve into future regulations. For instance, lawmakers in the European Parliament and the European Council reached an agreement on regulations supporting deforestation-free supply chains. The objective is to ensure that products imported to or exported from EU markets no longer contribute to global deforestation and forest degradation. The European Union Deforestation-Free Regulation (EUDR) took effect on 29 June 2023, after formal adoption by the EU Council, granting operators and traders an 18-month period to implement the new rules, with smaller enterprises receiving a longer implementation period.³⁹ The regulation sets mandatory due diligence rules for all traders exporting commodities, such as palm oil, cattle, wood, coffee, cocoa, rubber, soy and certain derived products like chocolate and specific palm oil based derivatives, from the EU market.⁴⁰ Additionally, on 31 July 2023, the European Commission adopted the European Sustainability Reporting Standards (ESRS) for use by all companies subject to the Corporate Sustainability Reporting Directive (CSRD). As the ESRS consist of mandatory requirements and principles for companies to comply with and report on sustainability matters, covering a wide range of environmental, social, and governance (ESG) issues, it is vital for countries to start aligning their processes with these sustainability regulations. Even though the ESRS currently primarily apply to large EU-based companies, this may change in the future and directly impact agri-SMEs in Ukraine seeking to export their products to the EU market.

- » **Traceability:** Focusing on implementing the concept of traceability, by improving transparency along the food chain in order to enhance the detection of the presence of unsafe food. This would allow detection of issues, such as missing documents along the supply food chain. Support could be provided to Ukraine to enhance the traceability of food throughout the supply chain and implement a digitized tracing system that produces electronic whole-chain tracing data shareable in a real-time manner⁴¹. Currently, a research is being conducted analyzing the benefits of introducing traceable dairy supply chain

processes. As the exports of Ukrainian skim milk powder, butter and milk fat grew significantly in 2022, introducing a traceability system through the dairy value chain could bring in tremendous benefits and improve compliance with food safety regulations, thereby reducing the risk of exports being rejected⁴².

Enhance industry compliance, competitiveness and sustainability:

- » **Compliance with labeling requirements:** Labeling represents 40% of the causes of rejection of exports of Ukrainian food and feed products and 56% of the reasons for rejection in the American market during the 2020 to 2022 period. Labeling is the most important way to present information about a product to a consumer. Labels can be mandated from governments and will include basic information about a product, such as the list of ingredients, net quantity, country of origin, name of manufacturer/importer, expiry date, etc. Labels may also include health and safety information, such as instructions for safe handling, storage conditions, nutritional value, etc.⁴³ For the nutritional value, it is recommended to use the nutritional labeling system with a colored logo which allows consumers to know at a glance the nutritional value of food. This is done in order to align with other European countries' requirements⁴⁴. The European Action Plan for Food and Nutrition Policy has invited countries to develop and implement front-of-package labelling systems which are easy to understand and provide consumers with a complementary interpretation of nutritional information. Some labeling issues are directly related to food safety and food products that will have incomplete or incorrect labels will be rejected at the border. An additional issue with labeling is that importing countries don't always have clearly prescribed labeling requirements in their legislations so products that don't have an expiry date/best before date can end up entering their markets. The additional challenge is that if such requirements were to be specified,

from the exporting country's perspective having to comply with labeling standards that differ across national markets means that suppliers will have to produce and pay for the costs of having different labels. These increased costs would prevent some foreign producers from competing in certain markets.

- » **Financial incentives:** Providing more fiscal and financial incentives to farmers to allow them to make investments to comply with international standards as a large proportion of farmers do not have the financial resources to upgrade their technology and improve their facilities in order to meet standards. SMEs could also be provided with financial incentives and capacity building support to increase compliance with food safety regulations, to encourage sustainable agriculture practices, and to promote the hiring of more women and vulnerable people. Support could be provided to improve the state of facilities, such as warehouses and processing plants, which would in turn help maintain hygiene standards and reduce the likelihood of contamination or spoilage. Prior to the war, Ukrainian agribusinesses were the recipients of approximately 60 to 70% of state agricultural subsidies, while small householders were overlooked. In addition, the conflict has markedly exacerbated the financial situation of small and medium-sized family farmers. Despite their relatively lower reliance on international trade and global value chains, the destruction of infrastructure, escalating fuel and agricultural input costs, and a decline in consumer purchasing power have caused severe liquidity challenges for numerous farms⁴⁵.
- » **Reasons for rejection:** As for the reasons for rejection, Ukraine has to concentrate its effort on reducing rejections caused by labeling (37%), adulteration/missing document (16%), additive (11%), and other contaminants (9%). In addition, for the European market which is a priority export market for Ukraine, efforts should be focused on reducing rejections due to bacterial and biological contamination, which represented almost 60% of the total causes of rejections during the period of 2010 to 2022.

- » **Support on causes of rejections:** Supporting farmers, producers and SMEs who have had rejections in the past by performing inspections to check how they've improved their procedures, tests, etc. to reduce the likelihood of facing future rejection of their products. The support could entail providing expertise, root cause analysis and capacity building trainings as well as funding to purchase equipment, ameliorate their facilities, etc.
- » **Food safety management system implementation:** Supporting companies in their implementation of food safety management systems such as the HACCP system by providing diagnostic visits, food safety audits, and support to undergo the certification process.

Promote a conducive policy environment and culture for quality:

- » **Quality awareness campaigns:** Addressing the lack of awareness of the importance of quality and food safety among most agricultural producers by conducting informational campaigns on standards, regulations, and national quality infrastructure. These awareness campaigns should target the general public as well as government institutions. Indeed, government institutions also need to be made aware of the benefits of developing a culture for quality and improving the national quality infrastructure in order to increase the competitiveness of Ukrainian food and feed products. In addition, inspectors shall promulgate regulatory requirements to farmers and food businesses as part of their inspection visits as they are the single source of knowledge for compliance.

39 European Parliament. (2022). Deal on new law to ensure products causing deforestation are not sold in the EU. <https://www.europarl.europa.eu/news/en/press-room/20221205IPR60607/deal-on-new-law-to-ensure-products-causing-deforestation-are-not-sold-in-the-eu>

40 European Council. (2023). Council adopts new rules to cut deforestation worldwide. <https://www.consilium.europa.eu/en/press/press-releases/2023/05/16/council-adopts-new-rules-to-cut-deforestation-worldwide/>

41 Sarno E., Pezzutto D., Rossi M., Liebana E., Rizzi V. (2021). A Review of Significant European Foodborne Outbreaks in the Last Decade. Journal of Food Protection. 84(12). <https://pubmed.ncbi.nlm.nih.gov/34197583/>

42 Lou C., Gorobec R., Samoilyk I., Trollman H. (2023). Traceable Dairy Supply Chain Implementation in Ukraine for Improved Export Potential. Eng. Proc. 40(14). <https://www.mdpi.com/2673-4591/40/1/14>

43 United Nations Economic and Social Commission for Asia and the Pacific. Facilitating Compliance to Food Safety and Quality for Cross-Border Trade. <https://www.unescap.org/sites/default/files/Facilitating%20Compliance%20to%20Food%20Safety%20and%20Quality%20for%20Cross-Border%20Trade%20Guide.pdf> Accessed 26 November 2021.

44 World Health Organization (2017). La France est l'un des premiers pays de la Région a recommander l'utilisation d'un système d'étiquetage nutritionnel doté d'un logo en couleur.WHO. <https://who-sandbox.squid.cloud/fr/countries/france/news/news/2017/03/france-becomes-one-of-the-first-countries-in-region-to-recommend-colour-coded-front-of-pack-nutrition-labelling-system>

45 Transnational Institute (November 9th, 2023). Ukrainian agriculture in wartime: Resilience, reforms, and markets. TNI. <https://www.tni.org/en/article/ukrainian-agriculture-in-wartime>

ANNEX: CONTEXTUALIZING TRADE-RELATED STANDARDS



Technical regulations and standards are increasingly prevalent and continuously evolving in the international trade of food and nonfood (industrial) products. Moreover, there is evidence that many developing countries face challenges in complying with the safety and quality requirements that these regulations and standards lay down. Since 2008, UNIDO has regularly collected evidence about trade-related challenges and their evolution over time, particularly in the area of compliance with (quality, certification, labeling, etc.) requirements set by international markets.

In their efforts to improve compliance, the challenge for national governments and donors is to allocate scarce financial and technical resources amongst a plethora of capacity building needs. There is, therefore, a need to identify where the most acute compliance challenges are faced – in a trade context this means identifying the products and markets with the highest rates of non-compliance – thus recording rejections. In this context, the Standards Compliance Analytics (SCA) tool can be used to facilitate the use of rejection data to identify the key compliance challenges faced by exporting countries and thereby enhance targeting of investments in building relevant compliance capacities. In addition, the SCA tool supports the assessment of the overall impact of rejection on export performance of countries of origin and estimates their compliance capacity by interpreting rejection trends together with additional key development, production and trade-related indicators. Lastly, the SCA tool provides the possibility to compare countries' trade compliance performance in different markets and related to specific product groups.

Finally, information on rejection can inform the policy and technical assistance to navigate and focus efforts in addressing compliance issues in a more effective and focused manner. Deeper understanding of trade compliance challenges contributes to better preparedness of exporting countries to comply with export market requirements and eventually less rejection in the long term. As a result, the economic losses due to rejection would be avoided while reputational risks due to large scale rejections can be averted.

The SCA tool compiles data from several data sources to cover five major markets including:

- » **China:** The Chinese rejection data records for agri-food products are published by the General Administration of Customs (GAC). The data includes records of rejected consignments under HS codes 1 to 24 that do not meet Chinese regulatory requirements.
- » **United States:** The US food and feed border rejection data is obtained from the US Food and

Drug Administration's (USFDA) Operational and Administrative System for Import Support (OASIS), an automated system for processing and making admissibility determinations for shipments of imported products that come under the jurisdiction of the USFDA. The USFDA's website also contains a description of the variables in the rejection data (Import Refusal Report). The data initially contains both food, feed, and non-food rejections. However, the non-food rejections are excluded as the current focus is the analysis of food and feed rejections.

- » **Australia:** The Australian food and feed border rejection data is obtained from the Australian Department of Agriculture, Water and the Environment. The data includes label and visual rejections, among other rejections. Imported food is inspected through a program known as the Imported Food Inspection Scheme (IFIS). The scheme inspects imported food to check if it meets Australian requirements for public health and safety and if it's compliant with Australia's food standards. A risk-based approach is taken when regulating imported food. Specifically, when a consignment of imported food has been referred for inspection, the inspection will involve a visual and label assessment and may also include sampling the food for the application of analytical tests. Under the IFIS, the Minister classifies food as either risk food or surveillance food. Risk food is food that has been assessed by the Food Standards Australia New Zealand (FSANZ) as posing a medium to high risk to public health, thereby requiring stricter border controls. Surveillance food is considered to pose a low risk to human health and safety.
- » **Japan:** The Japanese food and feed border rejection data is obtained from the Japan's Ministry of Health, Labor and Welfare (MHLW). The MHLW tracks and controls import consignments that violate the Food Sanitation Law to secure the "safety of diet" of Japanese people.
- » **European Union:** The food and feed border rejection data is obtained directly from the officials responsible for the EU's Rapid Alert System for Food and Feed (RASFF). RASFF provides a platform for the exchange of information between EU Member States on measures taken in response to food and feed products that pose an immediate risk to human health, both in the EU internal market and with respect to imports from Third Countries. The data initially contains both food, feed, and non-food (food contact material) rejections. However, the non-food rejections are excluded as the current focus is the analysis of food and feed rejections. It's important to note that after 2020, the United Kingdom's rejections are no longer included in the EU's rejection data set.





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