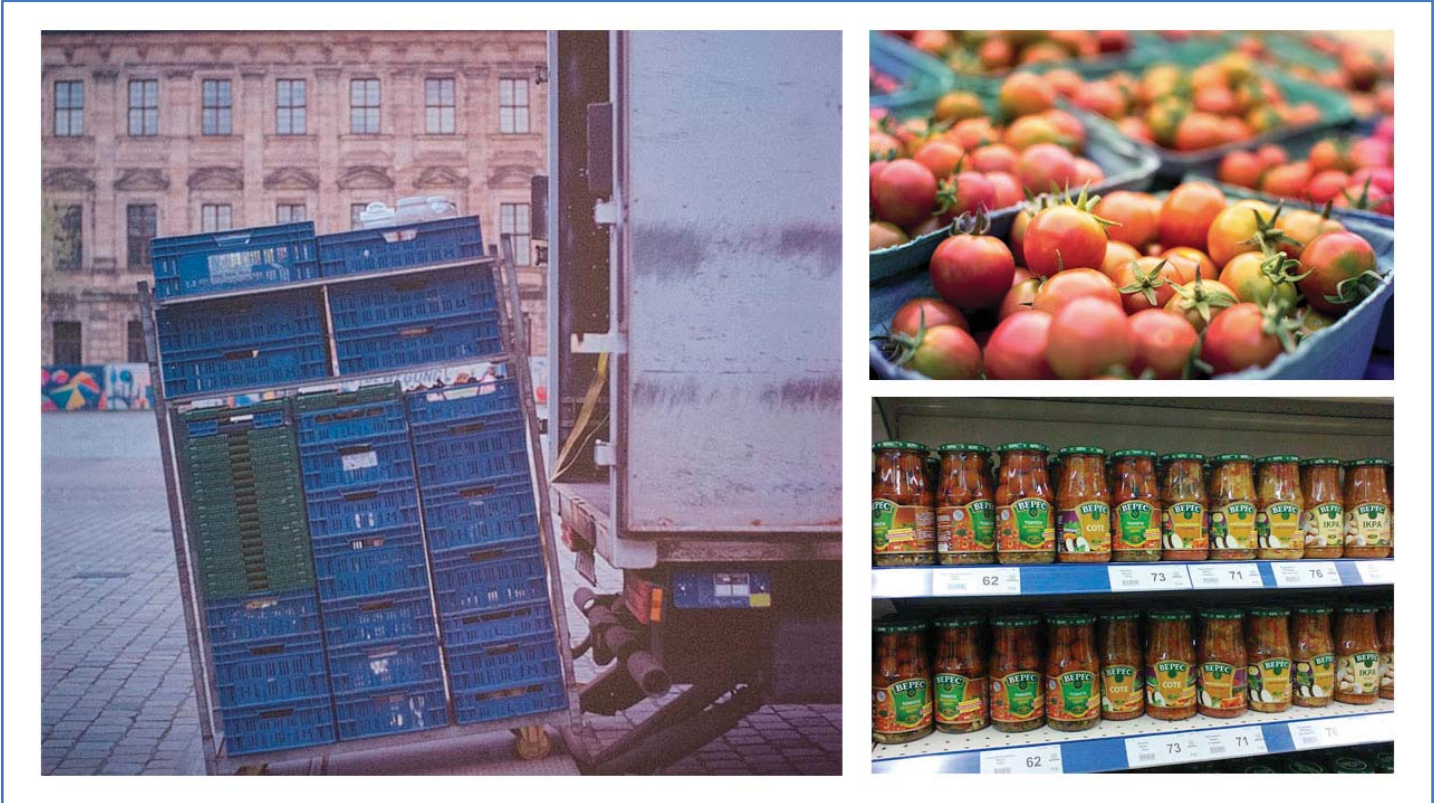




USAID
FROM THE AMERICAN PEOPLE



PROCESSED FRUITS AND VEGETABLES

IN-DEPTH REVIEW OF STRATEGIC TRADE SECTORS IN UKRAINE

USAID COMPETITIVE ECONOMY PROGRAM IN UKRAINE
(USAID CEP)

SEPTEMBER, 2020

DISCLAIMER: The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Contacts:

Olesya Volska-Zaluska
Deputy Chief of Party
USAID CEP

Evgenia Malikova
Contracting Officer's Representative
USAID/Ukraine

PROCESSED FRUITS AND VEGETABLES

IN-DEPTH REVIEW OF STRATEGIC TRADE SECTORS IN UKRAINE

Authors: Kateryna Furmanets, Veronika Movchan

Survey team: Iryna Fedets, Viktoria Zhovtenko, Yevhen Anhel, Julia Baziuchenko, Oksana Kuziakiv

Editor: Igor Burakovsky

Project Managers: Miles Light and Anna Gladshstein

Acknowledgements: The authors would like to thank the USAID Competitive Economy Program in Ukraine team of Mario Bordalba Layo, Anna Gladshstein and Miles Light for their helpful comments and encouragement. We are grateful to numerous officials of the Ministry for Economic Development, Trade and Agriculture for their insights and enthusiasm for this project. Several parts of the Government of Ukraine were extremely helpful in providing data, including the Tax Service, the Customs Service, the Statistical Service and the Ministry of Finance. We thank numerous public and private organizations in Ukraine for the provision of their time and insights, including the National Bank, the Antimonopoly Committee, the Delegation of the European Union, the Ukrainian Chamber of Commerce, the Turkish-Ukraine Business Association, the Association of Small and Medium Enterprises of Ukraine. We are extremely grateful to sector representatives for taking part in the survey and sharing their sector development visions.

This report was made possible from the support of the American People through the United States Agency for International Development (USAID) under the Competitive Economy Program in Ukraine (via the subcontract # CEP-2019-134).

The report and its results do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

USAID Competitive Economy Program in Ukraine (USAID CEP) promotes a strong, diverse, and open economy of Ukraine by enhancing the business environment for small and medium enterprises (SMEs), improving competitiveness in promising industries, and enabling Ukrainian companies to benefit from international trade.

This Research Conducted by:



Table of Contents

List of abbreviations.....	2
Executive Summary.....	3
1. The general situation in the processed fruits and vegetable sector.....	4
1.1. Domestic production.....	4
1.2 Employment.....	7
1.3. Sector development assessment.....	9
2. Foreign trade.....	10
2.1. Exports and imports.....	10
2.2. Revealed comparative advantage.....	13
3. Trade regime issues.....	15
3.1. Trade regime for exporters to Turkey.....	15
3.2. Trade regime for importers from Turkey.....	16
4. Impact of the FTA with Turkey.....	17
5. Conclusions and recommendations.....	17

List of abbreviations

EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
GDP	gross domestic product
GVA	gross value added
IFC	International Financial Corporation
PE	private entrepreneur (short for a physical person – entrepreneur)
RCA	revealed comparative advantage
SME	small and medium-sized enterprises
UAH	Ukrainian hryvnia

Executive Summary

The sector of processed fruits and vegetables is small, accounting for about 0.2% of GVA in 2018. The foreign companies' sale accounted for almost two-thirds of the total in 2018. The SMEs generate a large share of the sector's value added, but not private persons – entrepreneurs.

The sector produces a lot of traditional products like shelled walnuts, juices or vegetables preserved in vinegar. Still, there are many new niche products demanded by the market, including organic or sugar-free products.

The critical challenges for the sector include the lack of a qualified labor force with specific knowledge and skills, the lack of access to financial resource and, related to that, the absence of the agricultural land market. Also, producers complain about the access to raw materials as farmers prefer to sell to final consumers, offering better prices and on the level of infrastructure development.

The sector is export-oriented, with over 60% of its output shipped abroad. The share of imported products on the domestic market is about one-third, satisfying a growing demand for variety.

The EU is the largest partner of Ukraine for trade in processed fruits and vegetables. The role of Turkey is moderate, but still, the country is among the top-5 partners. While Ukraine's imports from Turkey is quite differentiated, its exports are dominated by shelled walnuts. The key reason for the low diversity of exports is prohibitively high import duties imposed by Turkey.

The deep liberalization FTA that includes the elimination of Turkish import duties on processed fruits and vegetables could become a real boost for the sector development.

Summary table

Indicator	Value	Year of observation
Value-added, % of GVA	0.2	2018
SMEs value added, % of sector total	64	2017
Real output growth, % CAGR, 2018	2.54	2019
Hired employees, thous.	14.6	2018
Average monthly wage, UAH	9,208	2018
Exports, USD bn	0.37	2018
Exports, % of domestic production	62	2017
Imports, USD bn	0.27	2018
Imports, % of domestic absorption	33	2017
Ukraine RCA, world	1.34	2018
Ukraine RCA, Turkey	2.76	2018

Sources: Ukrstat, WITS, authors' estimates

1. The general situation in the processed fruits and vegetable sector

1.1. Domestic production

Size of the sector. The processed fruits and vegetable sector in Ukraine is small, accounting for 0.2-0.3% of Ukraine's GVA, and is dominated by the small and medium-sized enterprises (SMEs) (see Table 1). Their share in value-added increased from 45% in 2014 to 64% in 2018. Emerging SMEs are capable of producing and marketing many exclusive and higher value-added products and have access to primary raw materials¹. The share of companies working as private entrepreneurs (PEs) in the sector is meagre as 1.4% of the sector' value-added.

Table 1: Value added in the sector*, 2013 – 2018

	2013	2014	2015	2016	2017	2018
Value added, UAH bn	3.4	3.8	3.2	3.3	5.0	5.7
Value added, % of output	27.2	25.4	20.5	17.8	22.4	23.2
Value added, % of GVA	0.3	0.3	0.2	0.2	0.2	0.2
Value-added produced by SMEs, % of total	--	45	--	--	64	--
Value added produced by PE, % of total	1.1	0.7	0.8	1.0	1.2	1.4

Source: Ukrstat

Note: * based on information for private companies

The domestic market is unsaturated, and there is a growing demand for processed fruits and vegetables as people gradually switch from homemade canning to buying canned products, the full range of which is supplied at low prices in the stores.² Shelf-stable vegetables (canned vegetables) dominate overall production; the leading company on the market is Agroekoprodukt. Other significant categories include fruit jams, juice mixes, frozen vegetables, and frozen fruit. Frozen processed potatoes generate the fastest growth of value (+18% in 2019), with McCain as a strong leader.³

Alongside traditional frozen whole fruits and berries, there are many new products both in conventional tastes like raspberry and in more exotic ones like mango or buckthorn (by Zhytomyrsky Maslozavod under its Rud' brand and Kalyna under its Vyshyvanka brand). Some of these products are even marketed as healthier substitutes for jams and preserves. Spela is offering mixes for smoothie preparation, while Zhytomyrsky Maslozavod, under the new brand Frenzy, is offering already prepared frozen smoothies. Besides, Zhytomyrsky Maslozavod launches vegetable mixes targeted at children. "Powder products" (technologically new) have not yet conquered a significant market share but could potentially compete with most traditional fresh fruit and vegetable products in the future.

¹ Sector Selection Assessment Report. Competitive Economy Program. USAID Ukraine. February 15, 2019.

² https://www.agroberichtenbuitenland.nl/binaries/agroberichtenbuitenland/documenten/publicaties/2018/01/04/ua-vca-fruit-and-vegetables/2016+-+Value+Chain+Analysis+Fruit+and+Vegetables_Ukraine.pdf

³ <https://www.euromonitor.com/processed-fruit-and-vegetables-in-ukraine/report>

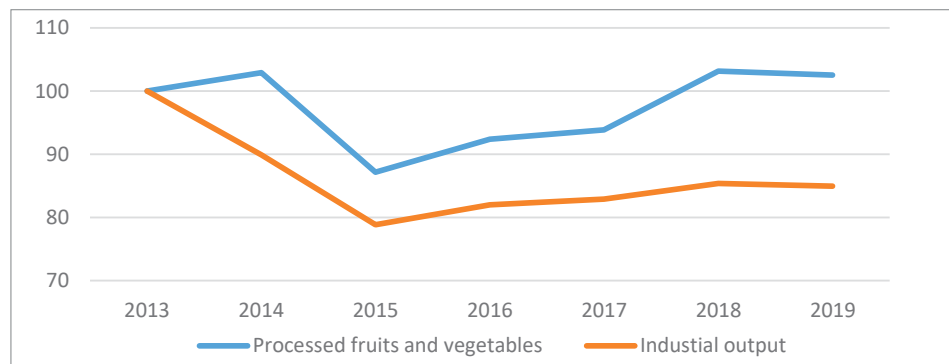
The sector-leading companies are BETEC (a GLOBAL G.A.P certified blueberry processing), Factoria-Agro (specializes in high-quality mustard and flaxseed oils and cakes), Sandora (entered into a joint venture with Pepsi in 2007 and currently occupies a 47% share of the Ukrainian juice market), T.B. Fruit (vertically integrated juice and processed fruits company), Fructona (specializes in frozen berries and extracts), Agrana (an Austrian-Ukrainian joint venture producing fruit purees and extracts), Liqberry (leader in organic berry sub-products)⁴ that offer the higher value-added products.

There is also an increasing demand for organic products (e.g. sugar-free preserves BobSnail, etc.) due to the growing popularity of a healthy lifestyle and the willingness of people to buy ready-to-eat products.

Apple juice is produced in the Vinnytsya, Odesa, and Chernivtsi regions (about 53% of the total), while jam and marmalade production is centred on the Vinnytsya region (53%). Vegetables (excluding potato) and fruit processing are concentrated in the centre of the country (Cherkasy, Kyiv, and Vinnytsya regions, providing 44% of production). Besides, the south of Ukraine (due to its favorable climate) is famous for growing open-ground tomatoes for processing. Over the last years, Ukraine has become one of the top ten world leaders in the production of tomato paste. Thanks to the Nikolaev Company "Agrofusion", which attracted significant foreign investments, the volume of production of tomato paste reached 750 thousand tons a year.⁵

The trend in real output. The sector has been growing moderately over the last six years, slightly surpassing the average growth rate of the economy (see Figure 1). The sharp decline in 2015 due to economic crises was replaced by a slow recovery in 2016-2018 under macroeconomic stabilization. It coincided with the overall trend in the country's real output. The pre-crisis level of 2013 for the sector was reached only in 2018.

Figure 1: Real output trends, 2013-2018, index 2013=100



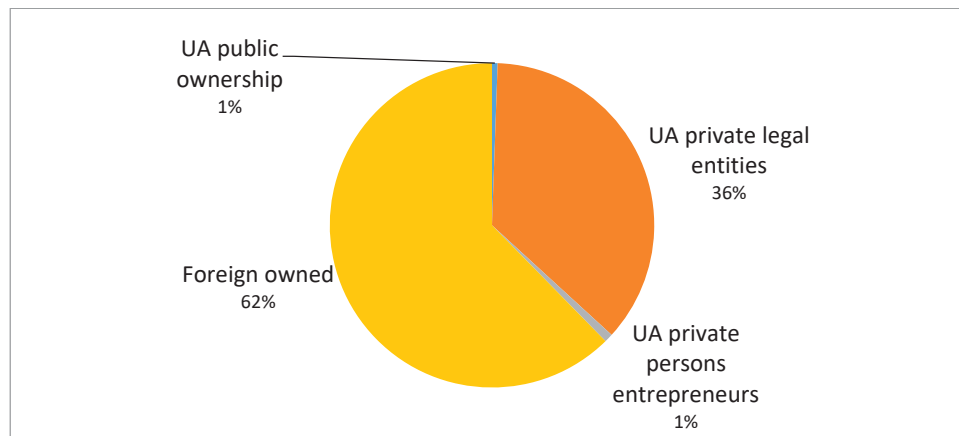
Source: Ukrstat

Ownership structure. The sector is dominated by private companies, with the state ownership being ca. 1% of the total. Foreign-owned companies dominate the industry, accounting for 62% of the sales in 2018. The share of Ukraine's private legal entities was 36%. The large foreign-owned players on the market include McCain, Sandora (owned by PepsiCo), and Agrana.

⁴ Sector Selection Assessment Report. Competitive Economy Program. USAID Ukraine. February 15, 2019.

⁵ <https://infoindustria.com.ua/produkti-pererobki-plodoovochevo%D1%97-produkcz%D1%97-najbilsh-zhorstkij-rinok-z-tochki-zoru-konkurenczi%D1%97/>

Figure 2: Ownership structure, 2018



Source: Ukrstat

Market concentration. Despite the large share of SMEs in value-added, the market concentration in the sector is significant (up to 37% for top-4 companies and up to 47% for top-8 companies). It is higher compared to other food processing sectors (such as processing and preserving of meat, fish, and dairy products). Agroekoprodukt (brand 'Veres') is the leading company with a 13% value share in 2019.⁶

The leading enterprises of the industry are either independent companies or a part of large food processing and distribution holdings.⁷ In particular, large multinational companies purchased domestic sector leaders and integrated them into their chains. That enabled the Ukrainian production to develop and gave it access to financial resources and technology of parent companies (for instance, the Sandora plant is part of PepsiCo). Other enterprises prefer to set up closed-loop businesses in the most climate-friendly area, thus reducing significantly the share of transportation costs in the price structure of the final product (for example, Agrofyzh is a vertically integrated holding that owns fields and three plants and is capable of processing 12 thousand tons of raw materials per day⁸).

Access to finance. There are three key sources of financing for sector companies: own capital (personal savings), bank loans, and grants. Despite recently introduced low-cost loans for SMEs (so-called 5-7-9 program), they currently don't work efficiently for business (See 1.3. *Sector development assessment*). Most companies have to borrow at high rates (18-23%), which increases the costs of business expansion and technological modernization. About 40% of surveyed SMEs are looking for financial resources to support and develop their own business.⁹ Even though international financial institutions (EBRD, IFC, and EIB) support the companies' development, interviewed producers of processed fruits and vegetables noted insufficient amounts of existing loan programs from these institutions.¹⁰

Access to finance of small-size food processing companies is limited, which restrains their development and competitiveness both in domestic and export markets. According to CEP interviews, difficulties in accessing bank loans for these firms are primarily explained by a low level of transparency and lack of collateral (banks generally require 100-200% of total loan value as collateral).

⁶ <https://www.euromonitor.com/processed-fruit-and-vegetables-in-ukraine/report>

⁷ https://www.agroberichtenbuitenland.nl/binaries/agroberichtenbuitenland/documenten/publicaties/2018/01/04/ua-vca-fruit-and-vegetables/2016+-+Value+Chain+Analysis+Fruit+and+Vegetables_Ukraine.pdf

⁸ <https://infoindustria.com.ua/produkti-pererobki-plodoovochevo%D1%97-produkci%D1%97-najbilsh-zhorstkij-rinok-z-tochki-zoru-konkurenczi%D1%97/>

⁹ <https://kurkul.com/spetsproekty/417-finansuvannya-virobnikiv-plodoovochevoyi-produktsiyi>

¹⁰ Sector Selection Assessment Report. Competitive Economy Program. USAID Ukraine. February 15, 2019.

The situation may change after the opening of the land market in Ukraine from June 1, 2021, as banks will be entitled to accept agricultural land as a mortgage.

Growing raw materials for the next season is financed from the proceeds of the current season. Therefore, companies in the sector are getting interested in *Agrarian receipts*, which have already shown their effectiveness in the processing industry. This financial instrument allows the banking sector to finance enterprises on the collateral of future harvests or primary processing products. The resource can be used further to accelerate the development of the industry¹¹.

Informal sector. There is a lack of information on the informality of the sector. According to IER's interviews, all enterprises declared 100% of official employment. That can be explained by the desire to be attractive for potential investors and to receive prepayments from foreign partners for exports. Besides, there is a fine of UAH 300 000 for every unregistered employee. However, these answers should not be considered as a reliable estimate for the whole sector.

A few informality insights for the sector are presented in the World Bank Enterprise Survey (2019). However, it provides data only on the manufacture of food products in general.¹² Based on this study, in the food sector, 62% of firms considered themselves competing against unregistered or informal firms, and 52.2% of companies identified practices of competitors in the informal sector as a major constraint.¹³

1.2 Employment

Key trends. According to the official data, the workforce in the industry has been shrinking over the last six years (see Table 2). Primarily, it is due to general downturn economic trends and the growing problem of labor migration to neighboring countries. At the same time, it is also attributed to the effect of ongoing structural changes, i.e. the gradual introduction of more capital-intensive production, modernization of production lines, and improvement of technological processes, which usually lead to a reduction of the workforce. In particular, the infrared dewatering technologies allow to employ fewer workers, process agricultural products almost without losses and deliver high-quality products without using any preservatives and acidity regulators.¹⁴

The sector's role as an employer remains comparatively low (0.2-0.3% of the total in the economy). A higher share of hired employees (compared to large companies) is working for SMEs.

Table 2: Employment in the processed fruits and vegetable sector*, 2013 – 2018

	2013	2014	2015	2016	2017	2018
Number of hired employees in the sector, thous.	21.7	19.9	16.3	14.7	14.9	14.6
Hired employees working in sector SMEs, %	--	61.0	--	--	74.2	--

¹¹ <https://infoindustria.com.ua/produkti-pererobki-plodoovochevo%D1%97-produkczi%D1%97-najbilsh-zhorstkij-rinok-z-tochki-zoru-konkurenczi%D1%97/>

¹² <https://www.enterprisesurveys.org/en/data/exploreeconomies/2019/ukraine>

¹³ Business owners and top managers in 1337 firms were interviewed from March, 2019 through December, 2019. Available at: <https://www.enterprisesurveys.org/en/data/exploreeconomies/2019/ukraine#informality>

¹⁴ <https://infoindustria.com.ua/produkti-pererobki-plodoovochevo%D1%97-produkczi%D1%97-najbilsh-zhorstkij-rinok-z-tochki-zoru-konkurenczi%D1%97/>

	2013	2014	2015	2016	2017	2018
Hired employees in the sector, % of total in the economy	0.3	0.3	0.2	0.2	0.2	0.2
Average monthly wage, UAH	3,521	3,940	4,603	5,633	7,545	9,208
Average monthly wage, USD	440.5	331.5	210.7	220.4	283.7	338.5
Real average monthly wage, index, 2013=100	100.0	98.0	77.0	82.8	96.8	106.5

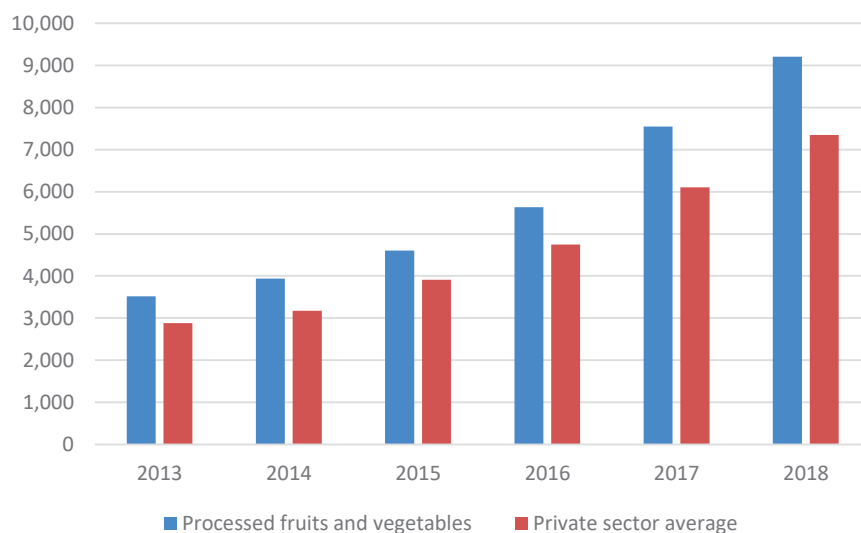
Source: Ukrstat

Note: * based on information for private companies

The sector relies heavily on an ample supply of unskilled labor that could be trained on the job. 82% of the companies surveyed considered the qualification of the labor force as adequate.¹⁵ At the same time, the sector experiences a lack of a qualified workforce.

Wages. The official wage in the sector of processed fruits and vegetables was 20% higher than the Ukraine private sector average in 2018 (see Figure 3). At the same time, the average monthly wage in real terms remained lower than in 2013 (except for 2018 -106.5), decreasing the attractiveness of working in the sector (See Table 2).

Figure 3: Average monthly wage, 2013-2018



Source: Ukrstat

According to the IER interviews, the employees receive UAH 10,000 for 9-hour shifts, while in Poland, they receive UAH 14,000 for 12-hour shifts. The interviewed companies cited that workers can generally earn the same amount if they work with the same quality and duration of time as in neighboring countries.

¹⁵ Sector Selection Assessment Report. Competitive Economy Program. USAID Ukraine. February 15, 2019.

Labor turnover. Official statistics in Ukraine do not breakdown labor turnover figures for the processed fruits and vegetable sector. Therefore, there is no official information on the percentage of the sector's workforce that changes jobs each year. These data are available only for the manufacture of food products, beverages, and tobacco products (near 44%)¹⁶. Companies interviewed by the IER cited an insignificant percentage of those who quit (near 2-3 % of the total).

1.3. Sector development assessment

The most critical problems in the development of the sector are the following:

Lack of financial resources and affordable loans. The insufficient access to financial resources limit the business expansion and modernization of the industry. Surveyed companies report that the current level of innovation in Ukrainian companies lags behind that of foreign competitors. Large processing enterprises are currently undergoing a technological revolution (introduction of artificial intelligence modules, modern computer tools, drones, and monitoring systems) to reduce costs and compete successfully on the fast-moving consumer goods market. It requires a significant amount of funding, which is currently lacking.

The recently introduced state program of low-cost loans for SMEs is currently not efficient. A company has to pay out all current loans at higher rates (at 18-23%). Upon these payments, the government will provide compensation at lower interest rates. Large companies also report on paying 22% for the loans on equipment purchases despite an earlier government promise to compensate a part of the loans' cost.

Interviews suggest that affordable loans are essential under the Coronavirus crisis. These cheap loans might also be used for adjusting production processes, purchasing new equipment and more advanced packaging technologies to sell products online.

Raw materials. Supplies of raw materials are also an issue. In particular, farmers prefer selling raw fruit and vegetables to consumers rather than to the processing companies due to higher prices. At the same time, the quality of raw materials for processing remains lower than required by the market. Producers emphasize that high-quality raw materials affect the efficiency and cost of processing. They cannot use the products of the second and third quality level (grades) as the primary source of raw materials¹⁷.

Lack of proper production and transport capacities, freezing, sorting, cooling, and storage facilities. Lack of storage and refrigeration facilities in horticultural and vegetable farms, a lack of industrial capacities for the production of dried and frozen fruit and berries.¹⁸ The sector representatives highlight that "fruit and vegetable processing needs access to fresh harvest and the raw materials need to be transported fast so that they do not lose quality".

Lack of qualified workforce, migration. The sector experiences a shortage of agronomists with more advanced skills (e.g., understanding of international standards and practices). Additionally, the industry lacks upgraded marketing and sales skills, as well as the ability to work with modern technology and equipment. The sector also suffers from the outflow of the labor force to neighboring countries, in particular Poland, even though the average wages in the sector are above the economy average.

Lack of market knowledge and complicated quality and food safety certification. According to companies interviewed, Ukrainian producers have problems with obtaining internationally recognized

¹⁶ http://www.ukrstat.gov.ua/druk/publicat/kat_u/2019/zb/08/zb_pu2018_pdf.pdf

¹⁷ <https://infoindustria.com.ua/produktyi-pererobki-plodoovochevo%D1%97-produkcz%D1%97-najbilsh-zhorstkij-rinok-z-tochki-zoru-konkurenczi%D1%97/>

¹⁸ USAID (2019). Competitive Economy Program. Sector Selection Assessment Report, February 15, 2019.

certification standards, including BRC, FSSC 22000, and IFS. Although certificates are not expensive, the process for obtaining them is quite hard due to the absence of specific regulations, lack of harmonization between Ukrainian legislation and other practices, and integration of certification criteria into the day-to-day business processes of the company.

VAT refund arrears. The problem causes a substantial decrease in operating funds (working capital) of the enterprises. According to the companies interviewed by the IER, the problem worsened again in late 2019. Ukrainian government suspended refunding VAT to companies (exporters) due to a growing budget deficit.

Land market. The interviewed companies cite several regulatory issues. The most significant one is the postponement of the opening of the land market until June 1, 2021. At present, it is difficult for companies to manage their land resources and attract investors. Recently, Ukraine has made significant progress in this area by adopting the long-awaited law on land by the end of March 2020.¹⁹ The Law lifts the ban on transactions with agricultural land that has been in place since 2001. The land will become an asset that owners can sell, and banks will be entitled to accept agricultural land into a mortgage. At the same time, it introduces several restrictions.²⁰ In particular, foreign individuals, legal entities, and Ukrainian legal entities with foreign shareholders cannot acquire state and municipal agricultural land, as well as agricultural land from holders of land shares. Besides, the maximum area of agricultural land in the ownership of Ukrainian citizens cannot exceed 100 hectares from July 1, 2021, up to January 1, 2024 (and 10,000 hectares from January 1, 2024). Legal entities are not eligible to buy land during the first period (until January 1, 2024). The transitional period was designed to allow small local farmers to be the first to buy the land and give access to the land market for larger companies afterwards.

Competition issues. Frozen processed fruit and vegetable products face intense competition from fresh products, which are becoming more widely available and at affordable prices in recent years, even in the cold season²¹. Besides, there is competition from cheaper products or substitutions (e.g., nectars or jams with a decreased amount of fruit).

2. Foreign trade

2.1. Exports and imports

Export of processed fruits and vegetables contributes near 1% of the total of Ukraine's exports. A downward trend in 2014-2016 caused by the crises following the military conflict in 2014 changed for export growth in 2017-2018 against the background of gradual recovery from the loss of the Russian market and the positive impulse stemming from the EU-Ukraine DCFTA. However, it still has not reached the pre-crisis level of 2013 (see Table 3).

A similar trend is recorded in imports of processed fruit and vegetables. However, a decrease in its value in 2014 was more profound than for the exports.

The exports of processed fruit and vegetables prevail over the imports by near 40%. The positive foreign trade balance for this product group tripled since 2013.

¹⁹ The Law "On Amendments to Certain Laws of Ukraine on Transactions with Agricultural Land" is available at: <https://zakon.rada.gov.ua/laws/show/552-IX>

²⁰ <https://eba.com.ua/en/pryjnyattya-zakonu-pro-obig-zemel-s-g-pryznachennya/>

²¹ <https://www.euromonitor.com/processed-fruit-and-vegetables-in-ukraine/report>

Table 3: Foreign trade in the processed fruit and vegetable sector*, 2013 – 2018

	2013	2014	2015	2016	2017	2018
Value of exports, USD bn	0.53	0.44	0.33	0.26	0.35	0.37
Exports growth, % year-on-year		-17	-24	-21	32	7
Exports, % of total exports	0.8	0.8	0.9	0.7	0.8	0.8
Value of imports, USD bn	0.48	0.35	0.19	0.19	0.22	0.27
Imports growth, % year-on-year		-28	-45	-1	19	19
Imports, % of total imports	0.6	0.6	0.5	0.5	0.5	0.5
Trade balance, USD bn	0.04	0.09	0.14	0.07	0.12	0.11

Source: Ukrstat/WITS

Note: * based on information for private companies

In 2018, about 85% of Ukraine's total exports of processed fruit and vegetables was concentrated on six major categories of products: shelled walnuts (30%), apple juice (18%), frozen fruits and nuts (15%), prepared or preserved tomatoes (13%), frozen raspberries, blackberries, mulberries (5%), and prepared or preserved potatoes (5%).

Imports have been more diversified. In 2018, the top-5 imported goods were prepared or preserved potatoes (15%), nuts (excl. ground-nuts) (9%), olives (8%), prepared or preserved potatoes (7%), and dried grapes (5%). They cover near 50% of Ukraine's total imports in the sector.

Exports to Turkey are divided between two categories of products: shelled walnuts – 95% and prepared or preserved nuts (excl. ground-nuts) – 5%. The most popular products imported are prepared or preserved nuts (excl. ground-nuts) – 63%, dried apricots – 16%, hazelnuts or filberts – 12%, preparations of fruit (excl. citrus) – 3%, dried grapes – 2%. They account for ca. 95% of Ukraine's total imports of processed fruit and vegetables from Turkey.

The majority of processed fruit and vegetables produced domestically is exported, and at the same time, the domestic market, especially households, actively consume imported products (see Table 4). The share of imports in the sector's intermediate consumption is lower at 18%.

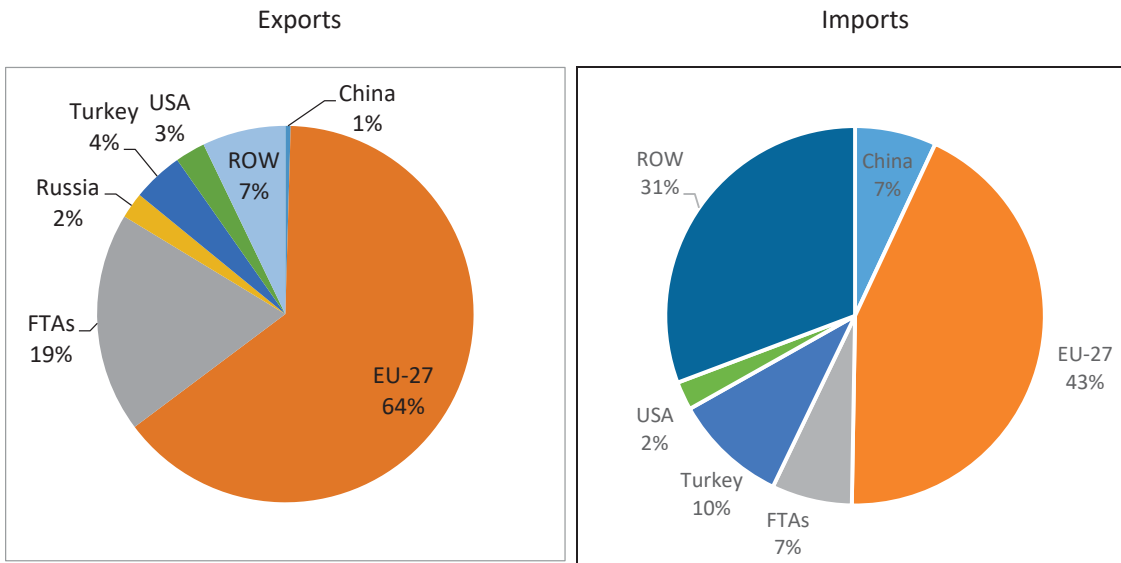
Table 4: Export orientation and import dependence of the sector, 2017

	% of exports in domestic production	% of imports in domestic absorption	% imported inputs in intermediate consumption
Processed Fruit and Vegetables	62	33	18

Source: Ukrstat

The EU-27 is a primary trade partner in both exports and imports of processed fruit and vegetables, largely thanks to the EU-Ukraine DCFTA and the loss of the Russian market (see Figure 4). The second major export destination for processed fruits and vegetables is the countries, which have FTAs with Ukraine (19% of the total). In imports, besides the EU-27, main partners are Turkey, China, and FTA countries.

Figure 4: Key trade destinations, 2018

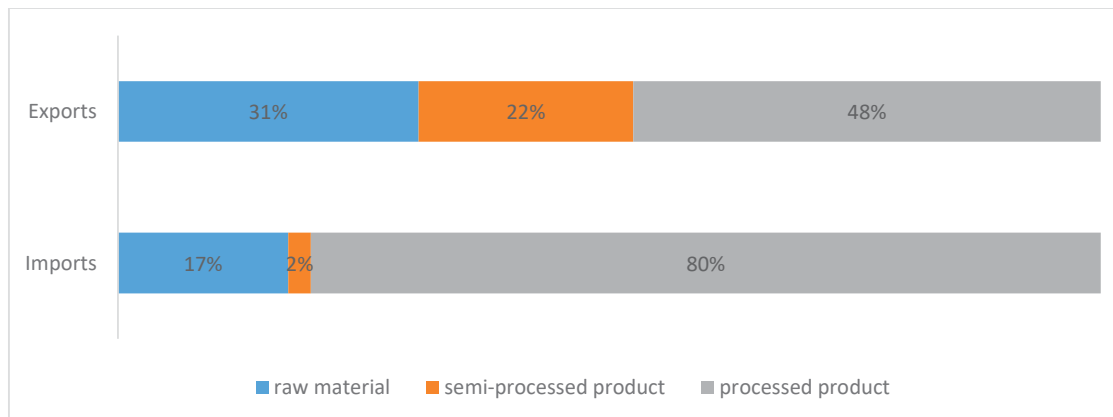


Source: WITS

Almost half of Ukraine's exports are processed products with a high share of value-added (see Figure 5). The rest is divided between raw materials and semi-processed products. According to interviewed companies, one of the leading destinations for semi-processed products is Poland which Ukrainian enterprises usually use for further processing of goods and distribution on the EU market²². Some Ukrainian processors already work with European retail companies under private label schemes.

From foreign markets, Ukraine primarily imports processed products for final consumption.

Figure 5: Trade by the level of processing, 2018



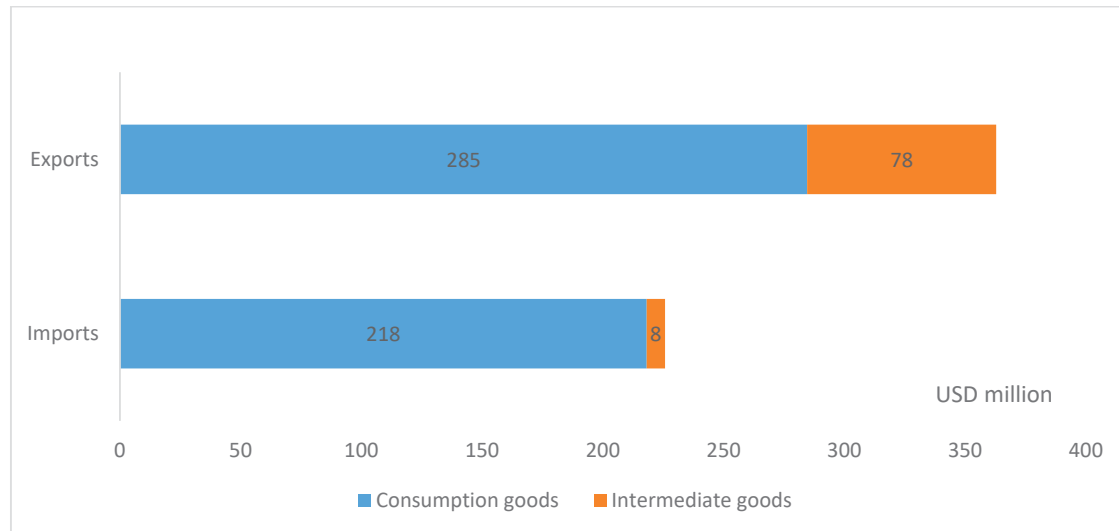
Source: WITS

The situation with Ukraine's exports to Turkey differs. Almost all sector export to this trade partner are raw materials (95%) with an insignificant share of processed products (5%). Semi-processed products are not supplied to Turkey at all. At the same time, imports' structure by the level of processing is quite similar to the sector's total imports: 69% - processed products, 30% - raw materials, and 1% - semi-processed products.

²² USAID (2019). Competitive Economy Program. Sector Selection Assessment Report, February 15, 2019.

Consumption goods dominate Ukraine's exports (see Figure 6), accounting for 79% of the total volume, while the relevant share for imports makes up almost 97%. Trade with Turkey by the end-use (both for exports and imports) is also concentrated on consumption goods.

Figure 6: Trade by the end-use, 2018



Source: WITS

2.2. Revealed comparative advantage

Both Ukraine and Turkey demonstrate the revealed comparative advantage in exports of processed fruits and vegetables on the world market (see Table 5).

On the Turkish market, Ukraine did not have a comparative advantage in 2013 but gained it by 2018. Turkey, instead, has been competitive in the Ukrainian market both in 2013 and 2018, but its RCA has been noticeably reduced over these years.

Table 5: Revealed Comparative Advantage on the sector level

	2013	2018
Ukraine RCA		
World	1.52	1.34
Turkey	0.46	2.76
Turkey RCA		
World	4.90	4.16
Ukraine	5.10	3.60

Source: WITS, own calculations

At the level of 6 digits of Harmonized Nomenclature (HS), Ukraine has the highest RCA in shelled walnuts, tomato and apple juices, and frozen fruits and berries on the world market (see Table 6a). The RCA on the Turkish market overlaps with the global RCA partly for shelled walnuts and tomato juice. But also Ukraine has a revealed comparative advantage in preserved mushrooms, vegetables

preserved in vinegar and grape juice. Interestingly, the RCA for all these products, except for shelled walnuts, has been gained over the last five years.

Table 6a: Revealed Comparative Advantage of Ukraine, top-5 products

HS 2007	Description	2013	2018
World			
080232	Walnuts shelled	11.69	18.18
200950	Tomato juice, unfermented & not containing added spirit	30.02	13.76
200979	Apple juice (excl. of 2009.71), unfermented & not containing added spirit	23.08	13.32
081120	Raspberries, blackberries, mulberries, loganberries, black/white/red currants & gooseberries, frozen	0.47	8.50
081190	Fruit & nuts, n.e.s., frozen	5.65	7.49
Turkey			
071151	Mushrooms of the genus Agaricus, provisionally preserved	0.00	83.82
200950	Tomato juice, unfermented & not containing added spirit	0.00	62.52
080232	Walnuts shelled	12.00	35.95
200961	Grape juice, incl. grape must, of a Brix value not >30, unfermented & not containing added spirit	0.00	6.64
200190	Vegetables, fruit, nuts & other edible parts of plants, prepared/preserved by vinegar/acetic acid	0.02	4.07

Source: WITS, own calculations

Globally, Turkey has the highest comparative advantage in exports of different kinds of nuts, especially hazelnuts, dried apricots and grapes, and cucumbers preserved in vinegar (see Table 6b). On the Ukrainian market, top-3 products with the highest RCA are the same as for the entire works: dried apricots, nuts mixtures and hazelnuts.

Table 6b: Revealed Comparative Advantage of Turkey, top-5 products

HS 2007	Description	2013	2018
World			
081310	Apricots, dried	94.58	85.34
080222	Hazelnuts/filberts (<i>Corylus</i> spp.), shelled	79.82	65.60
080620	Grapes, dried	30.16	31.18

HS 2007	Description	2013	2018
200819	Nuts (excl. ground-nuts), incl. mixtures, prepared/preserved	23.43	15.39
200110	Cucumbers & gherkins, prepared/preserved by vinegar/acetic acid	15.86	13.58
Ukraine			
081310	Apricots, dried	33.11	30.45
200819	Nuts (excl. ground-nuts), incl. mixtures, prepared/preserved	25.51	22.41
080222	Hazelnuts/filberts (<i>Corylus</i> spp.), shelled	16.53	19.98
081400	Peel of citrus fruit/melons, incl. watermelons, fresh, frozen, dried, provisionally preserved	15.53	14.02
200799	Preparations of fruit (excl. citrus fruit; excl. homogenized), obtained by cooking	16.06	12.38

Source: WITS, own calculations

3. Trade regime issues

3.1. Trade regime for exporters to Turkey

Turkey shields its market of processed fruits and vegetables with high tariff barriers. The sector's average MFN duty in Turkey at 41.50%, while the import weighted average faced by Ukraine is 16.44%. The reason is that shelled walnuts, to which Turkey applies 15% import duty, dominate Ukraine's exports to this country. There are no zero duties for products belonging to the sector. The minimum duty is 10%, while the maximum ad valorem equivalent is 135.9% applied to prepared and preserved tomatoes. For Ukraine, tomatoes preserved in vinegar is among the top export products in the sector, but the country cannot penetrate the market of Turkey due to high tariffs.

Food exports, including processed fruit and vegetables, into Turkey are allowed if they comply with the import control standards of the Turkish Food Code.²³ Besides, Ukraine required phytosanitary certificates for the export of some food and agricultural products, in particular, nuts. The documents are issued by local bodies of the State Service of Ukraine on Food Safety and Consumer Protection²⁴.

There are some pre-export arrangements needed before the initiation of the export procedures.²⁵ The Turkish importer should request from the Ukrainian exporter the package of documents.²⁶ After receiving the documents and the notification of the arrival of goods from the carrier, the customs

²³ www.tarim.gov.tr/GKGM/Menus/81/Turkish-Food-CodexLegislation

²⁴ <https://zakon.rada.gov.ua/laws/show/641-2011-%D0%BF#Text>

²⁵ <https://euromed.macmap.org/euromed/en/market-access-info/customs-procedures-guides/download?reporter=792>

²⁶ In particular, the package of documents may include bill of Lading (or AWB, CRM), commercial invoice, value declaration form, insurance policy, packaging list, authorization letter to the customs administration, and the certificate of origin in certain cases.

broker should request the release of the delivery order from the shipping agent. The delivery order will be processed after the payment of transportation and the delivery order fee.

Exporters to Turkey have usually requested a certificate of origin (certifying the country of goods origin) issued by the Chamber of Commerce. The certificate can be received upon filling in the application declaration, provision of documents confirming the registration of the exporter and the fact of goods export, as well as documents confirming the Ukrainian origin of the goods.²⁷ According to a new practice in Turkey launched within the Automatic System of Documents on Origin and Circulation of MEDOS on April 8, 2020, chambers of commerce started issuing certificates of origin and "forms A" for goods exported to Turkey in the electronic environment.²⁸

Companies interviewed by IER note some essential barriers for trading with Turkey. They admit high import duties while exporting to Turkey. Besides, the duties are to be paid in the Turkish lira, exposing exporters to exchange rate risks. Another significant barrier is a high level of competition and availability of own resources in Turkey: 'Big international and domestic companies have their juice production facilities in Turkey and are widely supported by the state. Turkey has a good climate for growing fruit and vegetables, which is favorable for producing its local juices'. The majority of respondents cite difficulties with finding trade partners in Turkey (Turkish importers and distributors) and expect assistance from the Ukrainian government on finding such connections in Turkey. The strengthening of the national currency (hryvnia) is also seen as a problem as it causes financial loss for exporters.

3.2. Trade regime for importers from Turkey

Tariff protection in Ukraine is much lower than in Turkey, although the sector is still protected. The average MFN duty for processed vegetables and fruits is 10.22%, while the weighted average duty faced by Turkey is 5.44%. The maximum import duty in Ukraine is 20% applied *inter alia* on imports of dried apricots, one of the top products of Turkey supplied to Ukraine. The share of zero duties in trade nomenclature at six-digit HS is only 5%.

A package of import-related documents submitted to customs authorities includes a customs declaration, an invoice, a declaration of the customs value, and a certificate of origin. The importers from Turkey are responsible for the compliance of cargoes with phytosanitary requirements of Ukraine²⁹ or food safety regulations.³⁰ Special conditions are applied to the import of GMO products³¹. In particular, customs authorities may allow the company to import GMO products into the customs territory of Ukraine only based on the certificate or registration number from the state register of genetically modified organisms or products produced using GMOs as well as a permit to import products produced by using GMOs for research purposes.³²

Circulation of imported food products on the territory of Ukraine, which labeling does not meet the requirements of the legislation on safety and specific indicators of food quality, is prohibited.³³ Food

²⁷ <https://ucci.org.ua/siertifikatsiia-pokhodzhiennia>

²⁸ <https://www.me.gov.ua/Documents/Detail?lang=uk-UA&id=6d6b6cbd-77db-448a-8d68-d082f9349887&title=InformatsiiaSchodoVipuskuNovoiFormiPreferentsiinikhSertifikativPokhodzhenniaTaformAVTurechchini&isSpecial=true>

²⁹ Responsible authority is the State Service of Ukraine on Food Safety and Consumer Protection.

³⁰ <https://www.qdpro.com.ua/document/61299>

³¹ In particular, for products made using melons, baby food and raw materials for their manufacture, tomato juice.

³² <https://www.qdpro.com.ua/document/63668>

³³ <https://www.qdpro.com.ua/document/945>; <https://www.qdpro.com.ua/document/51633>

labeling has to be done performed in the Ukrainian language. However, translation into other languages is allowed as well.

4. Impact of the FTA with Turkey

The interviewed firms have different expectations but mostly positive expectations regarding the potential FTA with Turkey. First, they all expect the elimination or lowering of import duties that will allow them to become more competitive with local producers on the Turkish market. If the import tariffs are cancelled and Ukrainian companies provide EUR 1 certificate, they will pay only taxes (VAT). Other positive FTA outcomes include new opportunities for development and better conditions for exports as well as creating new jobs.

Some respondents differentiate between short- and long-term effects of the FTA. In the short-term, there will be not enough time to find trade partners, exchange experience and technology between Ukrainian and Turkish companies and thus create opportunities for exports of new products. "It will be hard to export juices to Turkey, but it would be more realistic to export other products, such as fruit smoothies, fruit teas, and plant-based milk." From a long-term perspective, FTA may increase investments in the sector, technological spillover and thus new products. The more substantial effect can be achieved if it is combined with the opening of the land market in Ukraine.

Additionally, respondents think that the FTA impact may depend on the scale of a company. For small enterprises, the FTA may open the opportunity to increase their distribution if they sell some specific products, such as niche juices with some unique tastes that are not widespread on the market. Large enterprises will compete with other large companies using dumping of prices to win over markets.

We modelled several policy shocks to assess the impacts on FTA with Turkey on Ukraine, including:

- The reduction in trade costs due to reduced time required to import or export goods, both on the Ukrainian and the Turkish sides;
- The reduction of non-tariff barriers on goods by both Ukraine and Turkey;
- The mutual elimination of tariffs between Ukraine and Turkey; and
- The reduction of barriers on foreign providers of services for selected categories of services, not including tourism and hospitality sector.

As the processed fruits and vegetable sector is highly protected in Turkey, direct policy changes related to this sector are essential, while indirect effects play a minor role in defining results.

The model shows that in the case of deep liberalization FTA, the output will increase by 9.3% for the processed fruits and vegetables sector, driven primarily by the removal of prohibitively high import duties by Turkey. The sector's exports will increase by an impressive 13.9%, while the expansion of imports will be more moderate at 7.0%. The domestic supply will grow by 4.3%, pushing down the prices. The growing variety of products supplied on the internal market will become an additional benefit generated by the potential FTA with Turkey.

5. Conclusions and recommendations

The sector of processed fruits and vegetables is versatile. It is small, accounting for about 0.2% of GVA in 2018, but attractive to foreign investors. The foreign companies' sale accounted for almost two-thirds of the total in 2018. The SMEs generate a large share of the sector's value added, but not private persons – entrepreneurs. The industry produces a lot of traditional products like shelled walnuts,

juices or vegetables preserved in vinegar. Still, there are many new niche products demanded by the market, including organic or sugar-free products.

According to interviews, the critical challenges for the sector include the lack of a qualified labor force with specific knowledge and skills, the lack of access to financial resource and, related to that, the absence of the agricultural land market. Also, producers complain about the access to raw materials as farmers prefer to sell to final consumers, offering better prices, and on the level of infrastructure development, including the access to coolers, freezers etc.

The sector is export-oriented, with over 60% of its output shipped abroad. At the same time, the share of imports in domestic consumption, especially of households, is also high. The wide variety of products supplied allows satisfying growing demand differentiation on the market.

The EU is the largest partner of Ukraine for trade in processed fruits and vegetables. The role of Turkey is moderate, but still, the country is among the top-5 partners. While Ukraine's imports from Turkey is quite differentiated, its exports are dominated by shelled walnuts that accounted for 95% of the sector's exports to Turkey in 2018. The key reason is the prohibitively high import duties imposed by Turkey.

The deep liberalization FTA that includes the elimination of Turkish import duties on processed fruits and vegetables could become a real boost for the sector development.

To capture the opportunities offered by the FTA and facilitate the sector's development, we recommend:

- To further develop export promotion facilities for the sector, including partner matching, participation in fairs and other events;
- To support the companies' efforts in alignment to international foods safety and quality standards and certification of compliance with these standards;
- To develop education programs and training offering up-to-date sector knowledge and skills;
- To ensure the opening of the land market without any further delays.