

# SECTOR REPORTS



ISTANBUL  
CHAMBER OF INDUSTRY

Sectoral Committees  
in Global Competition  
Sector Strategies Project

# INDUSTRIAL FOOD SECTOR



**İYSAD**

İSTANBUL YEMEK SANAYİCİLERİ DERNEĞİ



**YESİDEF**



TÜRKİYE YEMEK SANAYİCİLERİ DERNEKLERİ FEDERASYONU



**ISTANBUL  
CHAMBER OF INDUSTRY**

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Sectoral Committees in Global Competition  
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# PREFACE

**A**s the largest non-governmental organization representing the industrial sector in Türkiye, we continue our efforts to provide our country with a stronger and more competitive production infrastructure. Today, as the competitive environment becomes increasingly complex with globalization and digital transformation, it is getting more important to produce information and strategies for sectors with strong growth and development potential. In line with this understanding, the production of sectoral reports and bulletins by our Chamber continues at full speed.

Nutrition, which is one of the most determinative factors of our quality of life and health, is simultaneously affected by many trends that have changed worldwide in recent years. Increasing demand for packaged food, rising nutritional trends (natural, gluten-free, vegan, ketogenic, etc.), development of consumer awareness and, of course, the increasing importance of sustainability and waste management are just a few of them. With all these changes, the sector's market expands in terms of both scale and diversity, while appealing to target audiences with different sensitivities becomes imperative in order to survive in the sector.

The world's industrial food production and catering services market, which is calculated as 276 billion dollars today, is expected to increase to 380 billion dollars in 2026. In Türkiye, the sector's background dates back to the first years of the Republic and to the public entrepreneurship. It has created an economy that serves more than 8 million people and employs hundreds of thousands, including the private sector.

Despite the continued rapid growth in our country, as you can see in this report, the market has not yet reached saturation and there is a great potential still waiting to be addressed. Our industrial food producers are candidates to become one of the main actors in our country's service exports with their know-how. The development and success of the sector is of vital importance for many public institutions, from schools to military institutions, to universities to security. This is also extremely valuable for us industrialists, who fulfill their obligation to provide healthy and quality food to their personnel every day.

Energy, supply and food safety are among the most important challenges facing the sector. All these problems gained a different dimension with the supply crisis in the process of exiting the COVID-19 pandemic and the war in

Ukraine. In addition to climate change and drought that threaten agricultural areas, the inflationary period that the global economy is going through also increases the costs of the industrial food sector.

In our country, the recent financial fluctuations, exchange rate instability and drought, which is showing itself more and more every day, cause all these changes to be felt deeply. At this point, perhaps the most urgent problems we need to solve are ensuring agricultural self-sufficiency and increasing productivity. In addition, there are many problems waiting to be solved such as product quality and standards, eliminating consumers' food safety concerns, informal economy and unfair competition.

In this report, the trends listed above and all key indicators concerning the sector are analyzed in detail. Not limited to this, the demands and the policy suggestions that emerged in the workshop we held with the participation of our ICI Group 9 Catering Industry Sectoral Committee members, company and sectoral association representatives, are also included.

While presenting the report to you with the hope that it will enlighten the future of this extremely critical sector, I would like to express my gratitude to Consulta Research team who prepared the report, to our 9th Group Catering Industry Sectoral Committee members who contributed to the report with their feedback, Istanbul Food Industry and Business Association (İYSAD), Federation of Food Producers Associations (YESİDEF), our Economic Research and Corporate Finance Department, which coordinates the process and to all those who contributed.

**Erdal BAHÇIVAN**  
Istanbul Chamber  
of Industry  
Chairman of the  
Board of Directors





# EXECUTIVE SUMMARY

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**The market size of the sector in our country is above 7 billion dollars. By the end of 2022, it is predicted to be around 4.5 billion dollars.**

The industrial food sector has been one of the indispensable partners of businesses and organizations with the quality and affordable food service it offers. The developments made in logistics, storage and cooking techniques are some of the key factors contributing to the start of the sector's golden age. The businesses and organizations have captured a big advantage with the industrial food companies that offer fresh, fast, affordable and delicious tastes. This advantage is even reflected to the armed forces operating in different parts of the world. Armies have outsourced their food cooking activities to the industrial food companies, even at the battlefield.

Today, the industrial food sector follows a different path from the past. The market size of the sector has increased even more with the factories and production facilities gathering in organized industrial zones, and many organizations such as schools, hospitals, barracks, and prisons turning to the industrial food sector.

Even though this increase has continued linearly in the last 10 years, the Covid-19 pandemic which emerged in 2020 has stopped the growth in the market. Adaptation of hybrid and remote working models, slow-down in production models during the pandemic are some of the factors affecting this stagnation in the sector.

As the impact of the pandemic has decreased, the market has started to recover partially. However, the hybrid working model becoming permanent and the presence of the commodity-based economic recession in the whole world are still preventing from removing the barriers in front of the sector's development.

The market size of the sector in our country is above 7 billion dollars. By the end of 2022, it is predicted to be around 4.5 billion dollars. Some of the challenges faced by the sector include the presence of the negative developments in the world, the presence of the

unregistered companies, though their number is not known (the number of registered companies is 5,192), the insufficient legislation about the sector, and the lack of clear understanding of the sector by the target market. The unstoppable rising trend in inflation and the environment of uncertainty have raised the cost items to a level not possible to handle. Moreover, the war in Ukraine has also contributed to the rise in the prices of cost items, particularly in the energy and food prices.

Not being able to benefit from export incentives and not achieving the desired level in export are the other issues that need to be addressed by the sector.

As for the consumption, consumers are having difficulties in dealing with the rising prices caused by production cost items, which affects their purchasing behaviors negatively. In addition, with the hybrid working models getting more widespread, the sector's share in the office employees segment is decreasing.

The Turkish industrial food sector must develop the right strategies and make the right initiatives to prevent all these negative courses of events, to turn this crisis into an opportunity and to reach the potential market size it has.

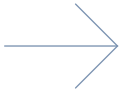




# INTRODUCTION

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# INTRODUCTION



The habit of collective consumption emerged from the day when humanity gathered around a fire in small groups and consumed game animals or collected fruits and vegetables. Especially as a result of the evolution from tribal life to larger groups, the professionalism of individuals has increased, and cooking, like many activities, has been carried out by professional teams targeting

larger groups. This situation occurred mostly in the camps or barracks of the armed forces during their expeditions. The back support elements, which served the support team, provided the supply and subsistence of the military elements in combat, and met the food needs of the soldiers. This tradition continues today, too.



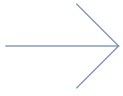
## INTRODUCTION

The change in the forms of production after the industrial society has also been effective on the change of the social order. Factories, businesses, hospitals, schools, etc., organizations have spread over larger areas and gained bigger organizational structures with more people. This situation has enabled organizations to focus more on their core tasks. For example, a

factory that produces automobiles has cooperated with suppliers that produce interim parts instead of producing all the parts itself, and has turned to other innovative activities that actually increase the brand value. And the industrial food sector has also started to find a place for itself in this new ecosystem.







# DEFINITION AND SCOPE OF THE SECTOR

It is seen that the Turkish industrial food sector has achieved a serious development with the industrialization movements since the proclamation of the Republic. As industrial establishments and modern enterprises with high numbers of workers emerged, the process of satisfying the personnel working in the enterprises and purchasing this service developed spontaneously. In the following years, the industrial food sector, which grew in quantity and developed in volume, continued its efforts to find itself in terms of quality and has now turned into a considerable food industry area in our country, as it is today.

Today, the industrial food sector has 5,192 registered companies operating throughout Türkiye, and provides direct employment to 334,529 thousand people and indirectly 1.5 million people, with an annual business volume of approximately 4.5 billion dollars (including informal companies). In addition, industrial food is a sector that grows by 10-15% on average every year and has the capacity to serve a total of 22 million people per day. The industrial food sector, which ranks the second in terms of employment in the service sector, attracts attention with its labor-intensive structure, although it has started to follow the developing technology closely (Turkish Ministry of Agriculture and Forestry, Istanbul Provincial Directorate of Agriculture and Forestry).

## Service Types in the Sector

When the industrial food sector is examined in general, there are 4 different service types.

These are;

- Off-site Catering Service
- Onsite Food Production
- Central Kitchen Supported Onsite Food Production
- Packaged Food Production

### Off-site Catering Service

Transportation of the food from the food production factory, which is also called the central kitchen, to the kitchen of the customer company, is called off-site catering service or off-premises or dropoff catering. This system, which is preferred more by local companies in our country, constitutes the most difficult part of the sector. If the taste and quality of the delivered food is not well preserved until it reaches the customer, a great

deal of dissatisfaction arises in customer. In addition, in terms of food safety, production and transportation processes must be well planned and controlled. Also, the off-site catering service, which eliminates the necessity of having a kitchen for the customer company, helps the customer to save space, while preventing the discomfort of the smell of the cooked food in the kitchens (Catering Türkiye, 2018).

### Onsite Food Production

In our age, modern businesses outsource their needs outside of their main field of business from specialist organizations, getting quality and affordable service, and focusing on their main fields of activity by utilizing their resources more effectively and efficiently, thereby increasing their competitiveness. With the onsite food production model, food is delivered by catering companies to the employees of the relevant establishments in satellite kitchens established in large industrial establishments in different geographical regions of Türkiye. In this way, while the customer companies concentrate only on their business, the catering companies ensure the satisfaction of the customer companies by providing faster and hotter food service thanks to the onsite food production. On the other hand, the use of satellite kitchens instead of the central kitchen is more costly for catering companies, while the customer company must provide space in its facility for the use of the kitchen (Catering Türkiye, 2018).

### Central Kitchen Supported Onsite Food Production

Central kitchen supported on-site food production is a food service that is preferred by medium or large-scale companies with limited investment and staff, offers its employees rich, varied and high-quality menus with affordable prices and has a flexible service system. In this model, the kitchen in the facility of the customer company is equipped with minimum equipment by the catering company and is set up to produce only stove and oven dishes in the presence of expert staff (Catering Türkiye, 2018).

### Packaged Food Production

The determination to provide food services to customers even in areas where heating and cleaning facilities are not available has led to the development of



the packaged food production model. Today, the most common one is the Modified Atmosphere Packaging (MAP) technology. Since MAP technology is a new field which adapts quickly to the requirements of the age and lifestyle, it needs to be examined in a little more detail (Catering Türkiye, 2018).

Modified Atmosphere Packaging (MAP) is defined as the process of packaging the product with packaging materials suitable for the product structure by changing the gas atmosphere inside the packaging in order to prolong the shelf life, to reduce microbiological development and to prevent enzymatic deterioration. In the basic technical process applied in the modified atmosphere, the air in the packaging environment is replaced with gases such as carbon dioxide, nitrogen, oxygen or a mixture of these and the packaging is closed. In modified atmosphere packaging, after the oxygen is eliminated from the package, the package is filled with different concentrations of CO<sub>2</sub> and N<sub>2</sub>. However, by providing suitable storage conditions in the refrigerator, the growth of aerobic microorganisms, proteolytic bacteria, yeast and molds is prevented (Dream Food, 2021).

### The NACE Codes Used in the Sector

NACE Code is actively used in the sector. Abbreviation of the NACE is “Nomenclature statistique des activités économiques dans la Communauté Européenne” It can be translated into English as “Statistical classification of economic activities in the European Community”. The NACE code gives the field of business of the workplace and, in connection with it, the workplace hazard class information. As a result of the interviews made with the leaders of the sector, the NACE codes and related explanations within the scope of industrial food sector are given below.

Class 10.85.01, which is called convenience food manufacturing, covers the manufacture of ready-made (ready-made, spicy and cooked) meals and foods. These foods are often packed and stamped for resale, while undergoing processes such as freezing or canning to preserve them. This class does not cover preparation of food for immediate consumption as in restaurants. To be called a meal, these foods must consist of at least two different food ingredients (except for spices, etc.). To specify in detail (TURKSTAT, 2022):

Source: TURKSTAT.

**Table 1: The NACE Codes of the Sector**

NACE Code	Product Description
10.85.01	Manufacture of convenience foods (vacuum-packed or preserved) (excluding restaurant and catering services)
56.21.01	Operations of businesses delivering food on special events (catering service)
56.29.90	Operations of other businesses delivering food (including table d'hôte service for sports, factories, workplaces, universities, etc., excluding those serving on special events)

- Manufacture of frozen or otherwise preserved pizza (excluding catering services)
- Manufacture of industrial foods from meat or poultry (excluding catering services)
- Production of ready-made couscous dishes with meat or vegetables (frozen or canned) (excluding catering services)
- Production of ready-made fish dishes (frozen or canned) (excluding catering services)
- Manufacture of prepared meat and poultry meals (frozen or canned) (excluding catering services)
- Production of ready-made vegetable dishes (excluding catering services)
- Manufacture of convenience foods (vacuum packed or preserved) (excluding restaurant and catering services)
- Production of convenience foods (frozen or canned) (excluding catering services)
- Production of Turkish ravioli (frozen or dried) (excluding catering services)
- Production of pasta dishes (frozen or canned) (excluding catering services)
- Production of vegetable dishes (frozen or canned) (excluding catering services)

56.21.01 class, which is also referred to as catering service, covers provision of food services based on the arrangements made under an agreement with the customers at the places determined by the customers for a certain event. To specify in detail:

- Providing catering services based on contractual arrangements with customers at locations designated by customers for a particular event
  - Catering services (catering for households or companies)
  - Operations of catering service businesses (those who provide catering services on special events)
  - Activities of businesses delivering food on special events
  - Activities of food companies (those who provide catering services on special days)
- Class 56.29, which constitutes the activities of other businesses that cater food covers industrial-scale catering activities, such as provision of food services based on contractual arrangements with customers over a period of time. Operation of food sales points in gyms and similar facilities is also included in this scope. Food is usually prepared by a central unit. (TURKSTAT, 2022)
- Class 56.29 consists of two subclasses as 56.29.90 and 56.29.03. To specify in detail:
- The scope of class 56.29.90 is as follows:
- Catering services (table d’hote service for factory, workplace, university, etc.)
  - Operations of other businesses delivering food (including table d’hote service for sports, factories, workplaces, universities, etc., excluding those serving on special events)
  - Industrial catering services for factories, workplaces, universities, sports facilities, etc. (excluding those for transportation companies)
- The scope of the class 56.29.03 is as follows:
- Operations of canteens/cafeterias (gyms, factory, school or workplace canteens, etc.)
  - Catering services (catering for transportation companies)
  - Food preparation and supply services based on contractual arrangements for airlines and other transport companies
  - Industrial catering services for transportation companies

# 1

## CHAPTER: GLOBAL OUTLOOK OF THE SECTOR



## 1.1. Global Industrial Food Sector

Recently, the rising trend of globalization, the increase in tourism activities and various culinary cultures have changed consumer food preferences around the world. Moreover, the expansion of leading contract catering services companies with integrated services attracts a large consumer base globally. In addition, the emergence of advanced business models to provide temporary workplace catering services is expected to further drive the growth of the contract catering services market in the coming years.

The trend of hospitality and quality food as part of business development to build good customer relationships has led to the adaption of contract catering services by many private and public companies. In addition, various catering companies are transforming the global contract industrial catering services market by focusing on providing world-class setup services, exotic ingredients, live food stalls and aesthetic delights. Also, changing socio-economic conditions combined with rising consumer living standards are effectively driving the market, especially in developing regions.

In addition to these, contract catering services are gaining popularity in the health sector due to the increasing need for healthy life and balanced nutrition. And the increasing demand for hygienic and

nutritious food across educational institutions and aged care centers is also driving the contract catering services market. Thanks to the rapid digitalization and increasing penetration of smart devices, several contract caterers are leveraging technology to offer pre-booking options, online menus, customized orders and shorter wait times.

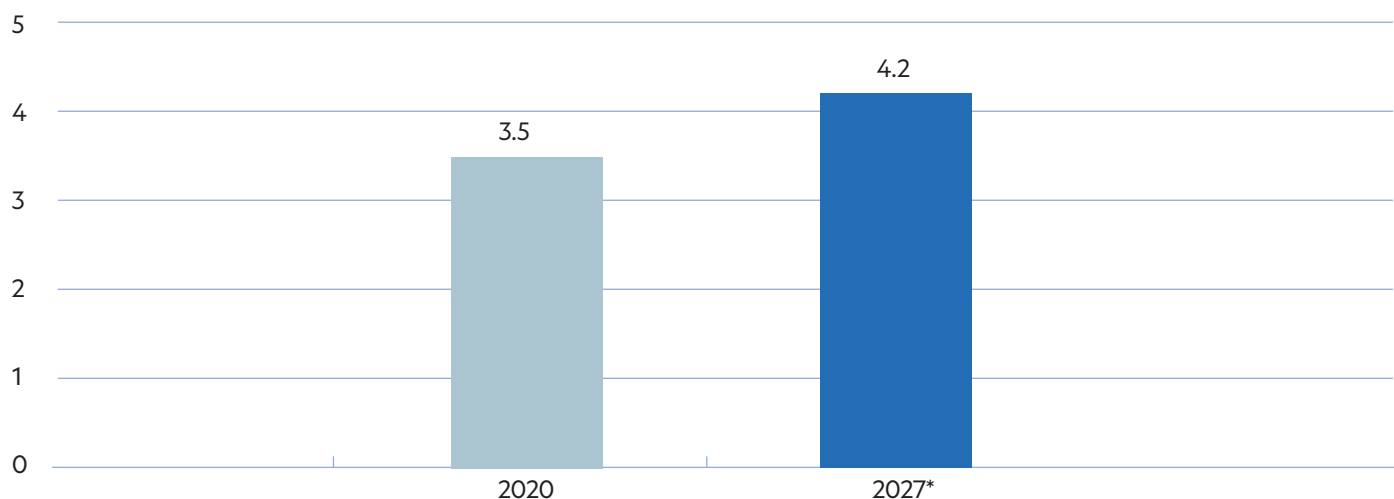
Looking at the service distribution of the sector, a distinction can be made according to the end user. Accordingly, the service areas are as follows:

- Business and Industry
- Education
- Health and Senior Living
- Defense and Offshore
- Sports
- Airports
- Others

Considering these service areas, the global food service market size reached 3.5 trillion dollars in 2020. This figure is projected to reach \$4.2 trillion in 2027 and show a CAGR (Compound Annual Growth Rate) of 2.7% from 2020 to 2027 (PR Newswire, 2020).

\*Estimate for 2027.  
Source: PR Newswire, 2020.

**Figure 1: Global Food Services: Market Size (Trillion Dollars)**

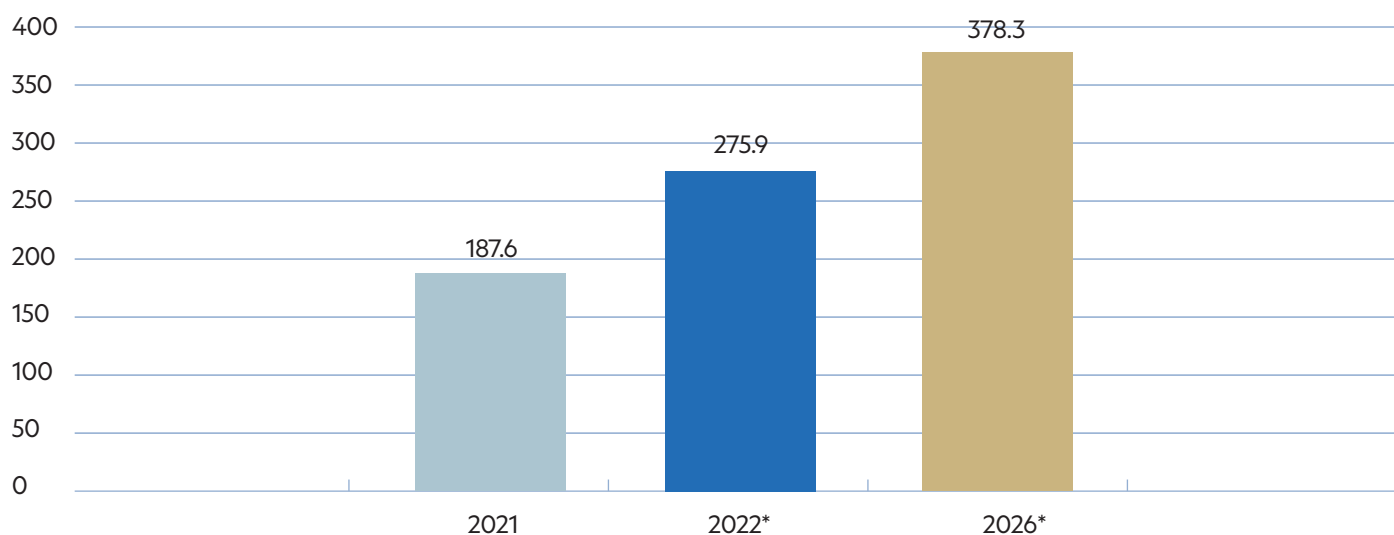


Industrial food services include providing food services to hospitals, workplaces, schools, universities, etc. in the service areas mentioned above, on a contractual basis and for a certain period of time. Western Europe and North America, in turn, are the most important regions in the world that provide this service. This services market is expected to grow to \$275.9 billion in 2022 from \$187.64 billion in 2021 with a compound annual growth rate of 47% (CAGR). The growth is mainly due to

companies reorganizing their operations and recovering from the impact of COVID-19, which previously led to restrictive containment measures that included social distancing, remote working and the closure of business activities resulting in operational difficulties. The market is expected to reach \$378.39 billion in 2026 at a CAGR of 8.2%. (The Business Research Company, 2021)

\* Years 2022 and 2026 are estimates.  
Source: The Business Research Company, 2021.

**Chart 2: Global Industrial Food and Catering Services: Market Size (Billion Dollars)**



## 1.2. Global Catering Services Market: Post-COVID-19 Recovery Scenarios and Impact Analysis

The COVID-19 pandemic has had a significant impact on catering services worldwide, both at the regional and country level. Three outlook scenarios are emerging for the global catering services market size for 2021 and 2022. (VPA Research, 2021)

Source: VPA Research, 2021.

**Table 2: Global Catering Market Size Outlook Scenarios**

<b>Low Growth</b>	The economic recovery will be slow, supply chain disruptions will continue to pose challenges, and consumer demand will remain weak.
<b>Medium Growth</b>	The economic recovery will be fast, supply chain disruptions will continue, and consumer demand will improve moderately
<b>High Growth</b>	The economic recovery will be fast, supply chain disruptions will be addressed, and consumer demand will be strong.

In most countries, a positive economic outlook dominated 2021. After the significant negative impact of the COVID-19 pandemic on the global economy in 2020, a rapid recovery was observed in 2021 thanks to the normalization that started with the spread of vaccination. Despite the positive outlook and strong growth in 2021, the effects of the monetary policy implemented during the Covid-19 period and the deterioration in the global supply chain became evident in 2022. The 40-year record high inflation rates caused the central banks, especially the FED, to follow a rapid interest rate agenda, and the US economy entered

recession with a contraction of 1.6% and 0.9% in the first and second quarter of 2022, respectively. As a result, the global economic outlook for 2021 started to lose its momentum and growth forecasts were revised downwards. In this context, the 2022 growth forecast of the US economy, which grew by 5.2% in 2021, was reduced to 2.3% as of July from 3.7%, the rate announced by the IMF in April of this year. In addition, the 2022 growth forecasts of the Chinese economy, which grew by 8.1% in 2021 and the Eurozone, which grew by 5.4%, were reduced to 3.3% and 2.6%, respectively.



## GLOBAL OUTLOOK OF THE SECTOR

### 1.3. Global Competition

#### 1.3.1. Players in the Global Market

Major companies in the food services and food contractors market include Compass Group plc, Sodexo, Aramark, Elinor Group, Autogrill SpA, SSP Group plc, Lufthansa Group, DO & CO AG, Samsung Welstory, Thompson Hospitality and ISS.

Source: Open source information of companies was used.

**Table 3: Service Types of Players in the Global Market**

Companies	Delivery Production	Onsite Production	Packaged
Compass Group	✓	✓	
Sodexo	✓	✓	✓
Aramark	✓	✓	
Elinor Group	✓	✓	✓
Autogrill SpA	✓		
SSP Group	✓		
Lufthansa Group	✓		✓
DO&CO	✓		✓
Samsung Welstory	✓	✓	✓
Thompson Hospitality	✓	✓	
ISS		✓	
Air Culinaire Worldwide			✓
Dnata		✓	✓
Emirates Flight Catering		✓	✓
Fusion Foods		✓	
Gategroup		✓	✓
Goddard Catering Group		✓	✓
National Catering Services & Foodstuff		✓	



**Table 4: Compass Group Company Information**

Company Name	Compass Group
Year of Establishment	1941
Number of Employees	548,143
Turnover	<b>2021:</b> \$24.57 billion <b>2020:</b> \$27.35 billion <b>2019:</b> \$34.13 billion <b>2018:</b> \$31.38 billion
Contact Information / Website	www.compass-group.com
About the Company	<b>Vision:</b> "To be a world-class provider of contract foodservice and support services, renowned for our great people, our great service, and our great results." <b>Mission:</b> "Continuously provide superior service in the most efficient way for the common benefit of our customers, shareholders and employees."
Services	- Food Services - Support Services Cleaning in hospitals, reception services in company headquarters, management of remote camps, field and facility services in schools and universities, etc. <b>Food Service Type:</b> Off-site Catering Service

**Table 5: Sodexo Company Information**

Company Name	Sodexo
Year of Establishment	1992
Number of Employees	412,000
Turnover	<b>2021:</b> \$17.4 billion <b>2020:</b> \$19.3 billion <b>2019:</b> \$21.9 billion <b>2018:</b> \$20.4 billion
Contact Information / Website	www.sodexo.com
About the Company	Thanks to its 412,000 employees, Sodexo provides food, facilities management, employee benefits and personal home services to 100 million consumers daily in 55 countries.
Services	Catering services, facilities management services, technical services, advantage and rewarding services, etc. <b>Food Service Type:</b> On-Site, Off-Site and Packaged Food Service.



## GLOBAL OUTLOOK OF THE SECTOR

Source: Aramark, 2022.

**Table 6: Aramark Company Information**

<b>Company Name</b>	<b>Aramark</b>
Year of Establishment	1959
Number of Employees	258,500
Turnover	<b>2021:</b> \$12.09 billion <b>2020:</b> \$12.83 billion <b>2019:</b> \$16.23 billion <b>2018:</b> \$15.79 billion
Contact Information / Website	www.aramark.com
About the Company	The American Heart Association and Aramark have introduced an innovative new health impact model. The initiative established a multi-year collaboration between a preeminent healthcare organization and a leading food company. The Commitment: To work closely together to leverage our combined reach and resources, as part of a nationwide initiative designed to help millions lead healthier lives. Today, the American Heart Association and Aramark are proud that this collaborative approach delivered such exciting results.
Services	Food services, facilities management services, catering services, hospitality management, supply chain services, etc. <b>Food Service Type:</b> On-Site and Off-site Catering Service.

Source: Elior Group, 2022.

**Table 7: Elior Group Company Information**

<b>Company Name</b>	<b>Elior Group</b>
Year of Establishment	1991
Number of Employees	105,000
Turnover	<b>2019:</b> 3.90 billion dollars <b>2020:</b> 4.92 billion dollars
Contact Information / Website	www.eliorgroup.com
About the Company	<b>Mission:</b> Serving delicious, healthy and eco-friendly meals
Services	Catering services, hospital accommodation management, cleaning services, facilities management services. <b>Food Service Type:</b> On-Site, Off-Site and Packaged Food Service.

\*Calculated as EUR/USD = 1.06.  
Source: Autogrill SpA, 2022.

**Table 8: Autogrill SpA Company Information**

<b>Company Name</b>	<b>Autogrill SpA</b>
Year of Establishment	1947
Number of Employees	31,092
Turnover	<b>2021</b> : \$2.76 billion* <b>2020</b> : \$2.76 billion* <b>2019</b> : \$5.30 billion* <b>2018</b> : \$4.98 billion*
İletişim Bilgileri/ Web Sitesi	www.autogrill.com
About the Company	<p>The Autogrill Group is the world's leading operator of passenger catering. It manages approximately 3,300 sales points in approximately 829 locations in 30 countries across 4 continents, and operates at 139 airports..</p> <p><b>Catchphrase:</b> "Feeling Good on the Move"</p>
Services	<p>Catering service at airports, highways, railway stations, urban areas, shopping centres, trade fairs and cultural venues.</p> <p><b>Food Service Type:</b> Onsite Food Service.</p>

\*Calculated as GBP/USD = 1.25.  
Source: SSP Group PLC, 2022.

**Table 9: SSP Group Company Information**

<b>Company Name</b>	<b>SSP Group</b>
Year of Establishment	1961
Number of Employees	21,091
Turnover	<b>2021</b> : \$2.76 billion* <b>2020</b> : \$2.76 billion* <b>2019</b> : \$3.50 billion* <b>2018</b> : \$3.20 billion*
Contact Information / Website	www.foodtravelexperts.com
About the Company	<p><b>Vision:</b> To offer our customers a unique experience beyond their expectations.</p> <p><b>Catchphrase:</b> "We are the food travel experts"</p>
Services	<p>Food service in restaurants, cafes, bars and fast food restaurants.</p> <p><b>Food Service Type:</b> Onsite Food Service.</p>



## GLOBAL OUTLOOK OF THE SECTOR

\*Calculated as EUR/USD = 1.06.  
Source: Lufthansa Group, 2022.

**Table 10: Lufthansa Group Company Information**

<b>Company Name</b>	<b>Lufthansa Group</b>
Year of Establishment	1995
Number of Employees	138,353
Turnover	<b>2021:</b> \$17.81 billion* <b>2020:</b> \$14.39 billion* <b>2019:</b> \$38.60 billion * <b>2018:</b> \$37.67 billion *
Contact Information / Website	www.lufthansagroup.com
About the Company	The Lufthansa Group is a global aviation group with a total of more than 300 subsidiaries and equity investments. It consists of Network Airlines, Eurowings and Aviation Services divisions.
Services	It provides cargo airline, passenger airline, consultancy, engineering and technical, nutrition, information technology and aviation training services. <b>Food Service Type:</b> On-Site, Off-Site and Packaged Food Service.

\*Calculated as EUR/USD = 1.06.  
Source: (DO&CO, 2022).

**Table 11: DO&CO Company Information**

<b>Company Name</b>	<b>DO&amp;CO</b>
Year of Establishment	1981
Number of Employees	8,683
Turnover	<b>2021:</b> \$268 million* <b>2020:</b> \$991 million* <b>2019:</b> \$897 million* <b>2018:</b> \$912 million*
Contact Information / Website	www.doco.com
About the Company	"As a listed Austrian company with the three business segments of Airline Catering, International Event Catering, and Restaurants, Lounges & Hotel, we offer Gourmet Entertainment all over the world. We operate 32 locations in 12 countries on 3 continents, maintaining the highest standard of quality in both our products and services."
Services	Airline catering, event catering, hotels and restaurants. <b>Food Service Type:</b> On-Site, Off-Site and Packaged Food Service.

**Table 12: Samsung Welstory Company Information**

<b>Company Name</b>	<b>Samsung Welstory</b>
Year of Establishment	1982
Number of Employees	7,816
Turnover	<b>2019:</b> \$1.9 billion
Contact Information / Website	www.samsungwelstory.com
About the Company	It has grown to become the largest food service company in Korea since its establishment in 1982.
Services	It is a food service business and provides food delivery services both domestically (Korea) and internationally (China and Vietnam).
	<b>Food Service Type:</b> On-Site, Delivery and Packaged Food Service.

**Table 13: Thompson Hospitality Company Information**

<b>Company Name</b>	<b>Thompson Hospitality</b>
Year of Establishment	1992
Number of Employees	600
Turnover	<b>2022:</b> 500 million dollars
Contact Information / Website	www.thompsonhospitality.com
About the Company	<b>Mision:</b> "Is to provide a positive experience to every relationship in which we are involved."
Services	Food service, catering, facilities management, vending machines, engineering solutions, etc.
	<b>Food Service Type:</b> On-Site and Off-site Catering Service.

**Table 14: ISS Company Information**

<b>Company Name</b>	<b>ISS</b>
Year of Establishment	1901
Number of Employees	378,946
Turnover	<b>2021:</b> \$10.86 billion
Contact Information / Website	www.issworld.com
About the Company	It is a facilities management services company founded in 1901 in Copenhagen, Denmark. It actively operates in 33 countries.
Services	Food service, support services, cleaning service, security service, workplace services and solutions, technical support, coronavirus solutions, etc.
	<b>Food Service Type:</b> Onsite Food Service.



## GLOBAL OUTLOOK OF THE SECTOR

Source: Air Culinaire Worldwide, 2022.

**Table 15: Air Culinaire Worldwide Company Information**

<b>Company Name</b>	<b>Air Culinaire Worldwide</b>
Year of Establishment	2000
Number of Employees	201
Contact Information / Website	www.airculinaireworldwide.com
About the Company	Air Culinaire Worldwide is the inflight catering services provider owned by Universal Weather and Aviation. It operates 22 food kitchens worldwide. In addition to its own and operated kitchens, Air Culinaire Worldwide has a network of more than 1,000 qualified food service establishments on six continents. <b>Mission:</b> To redefine private aviation catering globally. Our commitment is to make the client's total experience simple and enjoyable every step of the way... from Ordering, Delivery, Dining, and Invoicing.
Services	In-flight catering services <b>Food Service Type:</b> Packaged Food Service.

Source: Dnata, 2022.

**Table 16: Dnata Company Information**

<b>Company Name</b>	<b>Dnata</b>
Year of Establishment	1959
Number of Employees	7,500
Contact Information / Website	www.dnata.com/en/catering
About the Company	It provides approximately 106,000 food services a day with 500 chefs and more than 7,500 employees at more than 60 airports, more than 110 aircrafts and more than 40 cafes, bars and restaurants. Additionally, it produces 82,000 convenience foods a day at its 5,600 square meter production facility in Queensland, Australia.
Services	In-flight catering services. <b>Food Service Type:</b> On-Site and Packaged Food Service.

Source: Emirates Flight Catering, 2022.

**Table 17: Emirates Flight Catering Company Information**

<b>Company Name</b>	<b>Emirates Flight Catering</b>
Year of Establishment	1982
Number of Employees	8,000
Contact Information / Website	www.emiratesflightcatering.com
About the Company	Located at Dubai International Airport, Emirates Flight Catering serves approximately 225,000 meals a day, and provides airline, events and VIP catering services, as well as ancillary services including laundry, food production and airport lounge food & beverages services.
Services	In-flight catering services, airport restaurants and packaged food production services. <b>Food Service Type:</b> Onsite and Packaged Food Service.

**Table 18: Fusion Foods Company Information**

<b>Company Name</b>	<b>Fusion Foods</b>
Number of Employees	1,200
Contact Information / Website	www.fusionfoods.co
About the Company	It serves an average of more than 90,000 meals and more than 145,000 beverages per day in kitchens established at customers' locations. <b>Mission:</b> To constantly and continually strive to satisfy customers with personalised, sumptuous hospitality that is close to our culture. <b>Vision:</b> To always innovate and create new opportunities.
Services	Catering services to education and health institutions, restaurant businesses and facilities management services. <b>Food Service Type:</b> Onsite Food Service.

**Table 19: Gategroup Company Information**

<b>Company Name</b>	<b>Gategroup</b>
Year of Establishment	2008
Number of Employees	43,000
Turnover	<b>2019:</b> \$5.05 billion
Contact Information / Website	www.gategroup.com
About the Company	Based in Zurich, Switzerland, Gategroup serves more than 700 million passengers a year in more than 200 business units in more than 60 countries.
Services	Airline catering services, onboard retail, hospitality products and services. <b>Food Service Type:</b> On-Site and Packaged Food Service.

**Table 20: Goddard Catering Group Company Information**

<b>Company Name</b>	<b>Goddard Catering Group</b>
Contact Information / Website	www.gcgcobros.com
About the Company	It operates in more than 26 countries. <b>Mission:</b> Provide prepared food and related services of the highest quality, consistently meeting the expectations of our customers, employees, shareholders, and the communities in which we operate. <b>Vision:</b> To be the best provider of prepared food for airlines, airports and institutions in the world, while promoting the entrepreneurial spirit within the group.
Services	Food services to companies, airlines, industries, hospitals and schools. <b>Food Service Type:</b> On-Site and Packaged Food Service.



Source: National Catering, 2022.

**Table 21: National Catering Services&Foodstuff Company Information**

<b>Company Name</b>	<b>National Catering Services &amp; Foodstuff</b>
Year of Establishment	1978
Contact Information / Website	<a href="http://nationalcatering.net/">http://nationalcatering.net/</a>
About the Company	National-Catering is one of the leading Catering and support services companies in the Persian Gulf region. <b>Vision:</b> To provide fascinating and low-cost services in different sectors.
Services	Facilities management, catering services, camp management, kitchen design and equipment supply, housekeeping, cleaning and laundry services.
	<b>Food Service Type:</b> Onsite Food Service.

### 1.3.2. The Sector's Outlook in European Union Countries

The European Union countries have categorized the industrial food services in 4 different areas. There areas include:

- Business and Industry,
- Education (schools and higher education),
- Health Sector,
- Other (defense, prisons, hospice, etc.).

#### 1.3.2.1. Industrial Food Sector in Business and Industry Category

80-90% of the meals in the United Kingdom (UK) are provided with catering services, while in Germany, 62% of the meals are consumed as hot meals, although it is not known how much is provided by catering service. In Germany, hot meals are considered as a right for employees and the employer is responsible for providing this right. Hot food is met with meal cards or catering services (Sjögren, ve diğerleri, 2015).

#### 1.3.2.2. Industrial Food Sector in Education Category

In general, food companies have less presence in schools. For example, around 33% of schools in the UK provide food services as a catering service. In addition, in Germany, the rate of contract food services in schools is low and it is observed that non-profit organizations are beginning to dominate this service. In the Netherlands, a significant portion of students under the age of 18 go home for lunch. A similar approach is observed in Poland. 100% of universities in the Netherlands receive catering services. In Sweden, only about 20% of meals are provided by catering services. Much of the rest is done by municipalities in on-site kitchens, using their own staff (Sjögren, ve diğerleri, 2015).

#### 1.3.2.3. Industrial Food Sector in Health Category

20% of patient meals in the UK are provided by delivery catering services. In Croatia, this rate reaches 40% in large hospitals, while delivery catering services are not received in small hospitals. In Ireland, this rate is close to 10%. "Cook and Chill" food technology is the most valid preparation method for patient meals used in catering services throughout Europe (Sjögren, ve diğerleri, 2015).

#### 1.3.2.4. Industrial Food Sector in Other Categories

Meals are provided by catering services at all facilities affiliated to the Ministry of Defense in the UK. On-site food service is preferred only in battlefield or exercise areas. Industrial food services are provided in all NATO institutions, facilities and military units, as well as United Nations entities. The vast majority of meals in prisons in Europe are prepared in their own mess halls, as inmates provide a readily available source of cheap labor. However, private companies prepare meals in prisons in the UK (Sjögren, ve diğerleri, 2015).

#### 1.3.2.5. NACE Codes Used in the Sector for European Union Countries

The number of enterprises and turnover statistics of the NACE codes of 10.85 (Convenience Food Manufacturing), 56.21 (Operations of Businesses Delivering Food on Special Events) and 56.29 (Other Food Service Operations) of 28 countries within the scope of the European Union (including the UK) are given in the table below (Eurostat, 2022).



Source: Eurostat, 2022.  
(1) \* No data available.

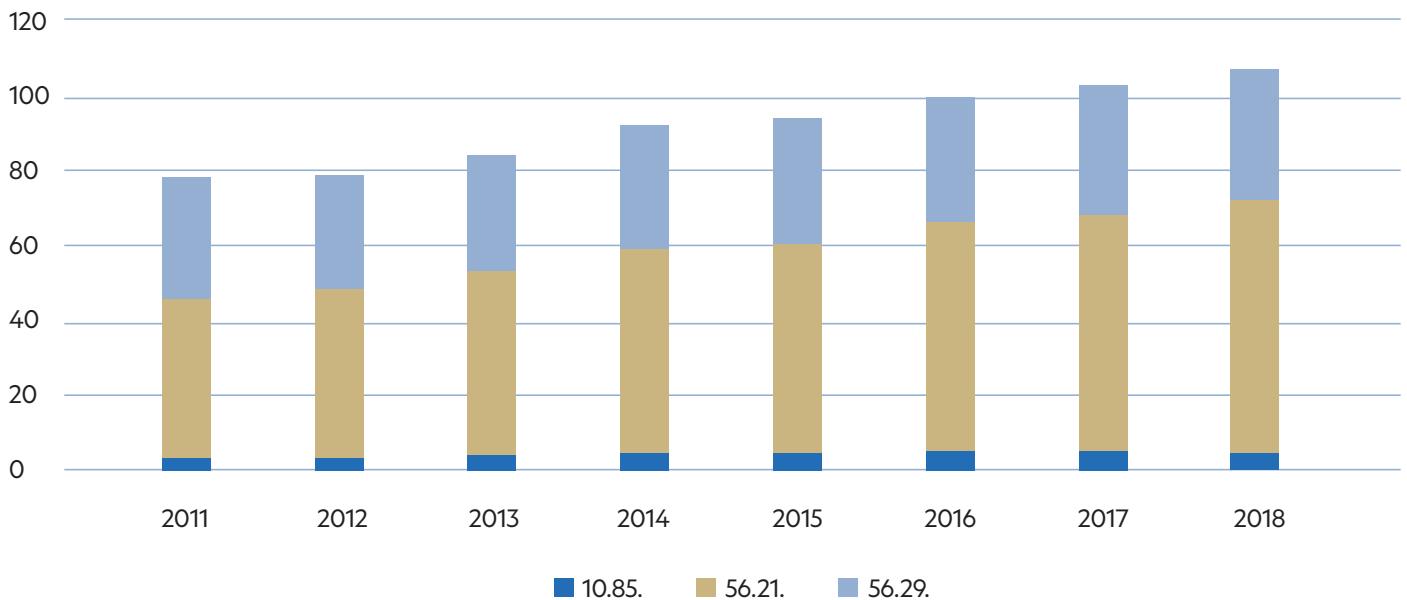
**Table 22: The NACE Codes and the Data Used in the Industry in the European Union**

Veri Tipi	NACE Kodu/Yıllar	2011	2012	2013	2014	2015	2016	2017	2018
Number of Enterprises	10.85.	3,981	4,144	4,662	4,858	4,878	4,838	5,064	5,337
	56.21.	41,532	43,715	48,813	54,520	55,346	61,340	62,535	66,351
	56.29.	32,247	30,736	29,918	31,905	33,142	34,325	34,724	34,284
	<b>Toplam</b>	<b>77,760</b>	<b>78,595</b>	<b>83,393</b>	<b>91,283</b>	<b>93,366</b>	<b>100,503</b>	<b>102,323</b>	<b>105,972</b>
Turnover (Million Dollars)	10.85.	16,258	16,935	16,300	17,167	18,892	19,585	18,896	19,959
	56.21.	17,391	18,365	12,616	13,502	(1) *	16,782	17,508	19,545
	56.29.	29,504	30,658	34,961	37,470	39,485	38,642	41,070	43,008
	<b>Toplam</b>	<b>63,152</b>	<b>65,958</b>	<b>63,877</b>	<b>68,139</b>	<b>58,377</b>	<b>75,008</b>	<b>77,474</b>	<b>82,512</b>

According to the NACE codes used in the sector, the following graphs emerge when the number of European Union industrial food enterprises and the development in turnover are examined.

Source: Eurostat, 2022.

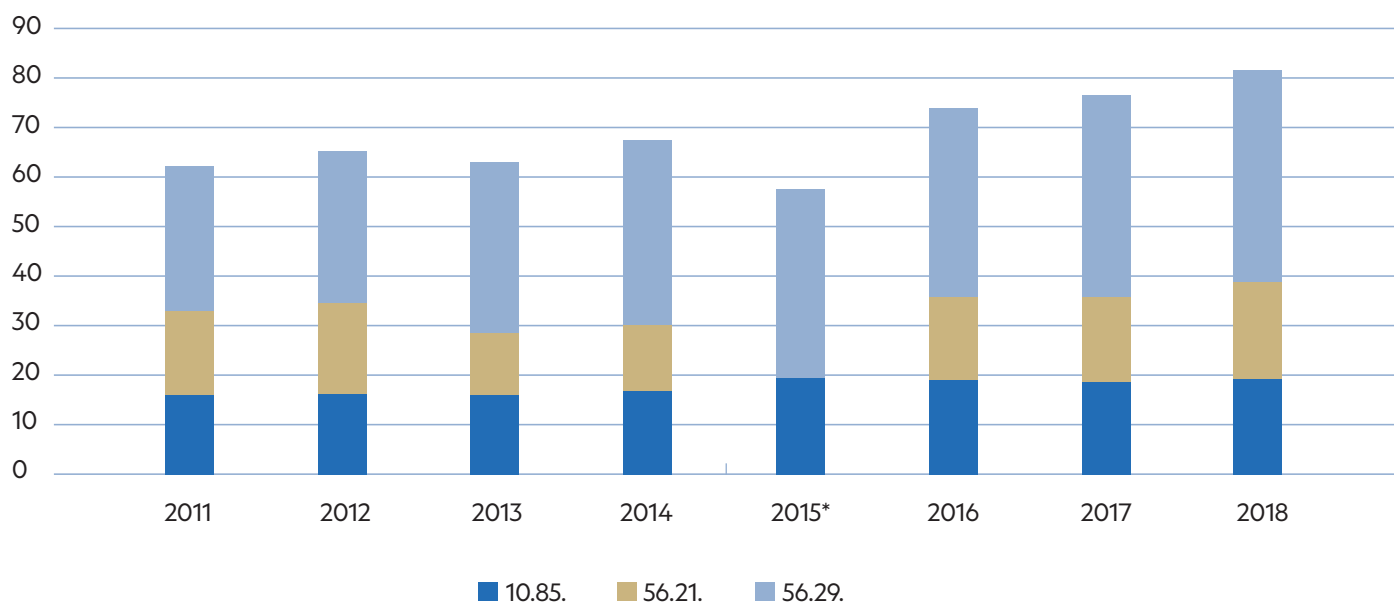
**Chart 3: Number of Industrial Food Enterprises in European Union (Thousands)**





Source: Eurostat, 2022.  
\*Data of NACE Code 56.21. were not shared in 2015.

**Chart 4: Turnover in the European Union Industrial Food Sector (Billion Dollars)**



Between 2011 and 2018, the turnover of the sector increased by 33.4%. This increase was calculated as 3.7% as CAGR (compound annual growth rate). The number of enterprises in the sector increased by 36.4%, similar to the increase in turnover, and the CAGR value of the number of enterprises was calculated as 4.0%.

### 1.4. General Trends Affecting the Sector

#### 1.4.1. Packaged Food Trend

PPackaged foods are generally considered a food service that can be preferred by both individuals and corporate companies that do not have a very high number of employees, and generally includes soup, main course, side dish and complementary meals.

Packaged foods, which consumers can access quickly and easily consume, stand out as one of the most important factors that change their eating and drinking habits globally. For this reason, it appeals to large masses such as employees, students, those who eat out, those who have a shortage of time and campers. Packaged foods can be obtained in bulk from market aisles through mobile applications or through industrial

food companies. While packaged foods cover a large part of the market aisles in countries such as the UK and Germany, it also emerges as a rapidly developing industrial food area in Türkiye (Boyano Larriba, ve diğerleri, 2019).

#### 1.4.2. Nutrition Trends

Nutrition trends such as natural and organic nutrition, gluten-free diet, vegetarian diet, vegan diet and ketogenic diet have become widespread in the world in recent years. One of the triggering factors of this rapid spread is various diseases in people. When we look at the causes of death in the world, it is known that circulatory system diseases, which are in the first place, improve with healthy and proper nutrition (Dayı, 2018). According to a global survey conducted in April 2018, 4% of consumers in the UK, 3% of consumers in Germany and France, and 2% of consumers in the USA declared themselves vegan. Considering that these rates will increase in the near future, industrial food companies have started to offer vegetarian and vegan menus upon request of their customers. However, these types of menus have not become very common yet due

to the fact that the nutritional values should not be lower than a certain value in these diets, and therefore their costs are high (IPSOS Knowledge Centre, 2018).

#### 1.4.3. Full-Service Procurement

A multinational contract food company states that the trend will continue in the near future to offer basic services such as cleaning, reception and security, as well as catering, as a full package for major catering services companies in Northern Europe. Receiving these basic services from the same company simplifies management for the service user and reduces costs. Across Europe, it has been stated that public institutions will increase their focus on their core activities and tend to outsource food services. However, outsourcing is not expected in the procurement of multiple services in these areas as there is staff available for basic service types in the public sector.

#### 1.4.4. Conscious Consumers

With the effect of social media, consumers are now interacting with each other much more. For example, in Sweden, media stories and posts about ‘bad food’, ‘bad food service providers’ etc. are considered by service providers to play a major role in accelerating the popularity of fresh, organic and seasonal products. However, with the widespread use of the Internet, the desire to satisfy people’s curiosity is also increasing. One of the issues of curiosity has been how the food that individuals eat reaches them. Even the largest contract catering services companies in Europe find it extremely difficult to achieve traceability with a “farm to fork” strategy. One reason for this is the extreme diversity in suppliers, especially the wholesalers from which they purchase the materials.

#### 1.4.5. Sustainability

The concept of sustainability has different definitions according to the fields of expertise. When it comes to the food and beverage sector, sustainability is evaluated in a wide range from reducing food waste to effective energy use. Sustainability means not only preserving existing resources, but also producing rationally and responsibly. Sustainability has become an important concept that needs to be emphasized in the food sector due to the increase in food wastes occurring in stages such as production, processing and storage in the food sector every year. To summarize, sustainability can be defined as an attempt to minimize the ecological and economic damage that occurs during the preparation,

% 33,4

Between 2011 and 2018, the sector’s turnover recorded 33.4%.

processing, storage and consumption of foods. The concept of sustainability has become a much more important phenomenon with the prediction that the world will feel the effects of global warming much earlier than thought in the special report published at the Intergovernmental Panel on Climate Change organized by the United Nations in October 2018. When this situation is analyzed in terms of the food industry, since agricultural activities are estimated to correspond to 30% of global greenhouse gas emissions, the food industry ranks first among the areas that need improvement. Sustainable practices should be emphasized for ensuring the input-output balance in the food and beverage sector, and effective production, storage and distribution channels. It is an effective method to recycle wastes as energy, especially in businesses where organic waste is generated in large quantities, such as restaurants or industrial food companies. In addition, food waste can be prevented by delivering products with near expiration date through various digital channels or directly to some institutions and people in need (Taş & Olum, 2020).



### 1.4.6. Digitalization and Green Restaurant

#### 1.4.6.1. Digitalization

In sustainable food production, innovative and digital technologies are developed to reduce the carbon footprint of the sector. In recent years, with the technology dominating our daily lives, innovative methods have been added to the forms of cooking, storage and distribution, especially as a result of the harmony of kitchen appliances with technology. In addition to these, there are various developments in the sector with the use of Internet of Things technology in many different areas.

The Internet of Things is a platform that brings great innovations to human life and provides a communication environment for information transfer between objects or between objects and people. Thanks to the Internet of Things, mechanisms connected to the Internet perform the necessary functions without the need for an external physical instruction. The aim here is to provide an environment of direct interaction without the need for clear instructions by providing an understanding of what is liked, wanted and needed by the surrounding objects.

Many digital kitchen products have been developed by taking advantage of the Internet of Things technology. With this technology, the equipment acts like artificial intelligence to which the Internet is connected. In this way, it is foreseen that the objects interacting with the Internet will work faster, more efficiently and with a saving mechanism.

Some examples that have emerged thanks to the changing and developing world and technological developments are as follows:

- Thanks to a smart mechanism that predicts the expiration date of the bread by using the photo-acoustic effect to prevent the recently increased waste of bread, the edible breads that are not sold in the bakeries are saved from being thrown away.
- The smart shredder, a new technology that enables minimizing food waste, is a digital kitchen appliance that turns food waste into fertilizer within 24 hours. With the right combination of oxygen, moisture and heat, it breaks down food waste within 24 hours and turns it into natural fertilizer.
- Bringing food preparation into the digital age, 3D food printing has been developed to produce food in a personalized or standardized way. A wide variety of shapes, textures and decorations can be created with 3D food printing. It is stated that the three-dimensional printer can be used in the future as a cooking device that produces various flavors and aromas, food prepared in pill size and various edible molds. Since 3D food printers are computer-aided technology, they greatly reduce labor costs. At the same time, it allows for the production of customized food, as it is produced in line with consumer demand.

# 3D food printing

Bringing food preparation into the digital age, 3D food printing has been developed to produce food in a personalized or standardized way.

#### 1.4.6.2. Green Restaurant

In order to reduce the carbon footprint of restaurants and to ensure their transition to sustainable production methods, green restaurants have emerged in many countries, including Türkiye. Enterprises are subject to certain conditions to be included in the green restaurant class. Although these conditions vary from country to country, they basically include measures for the implementation of sustainable and environmentally-friendly production models. Enterprises that meet the specified conditions are given a “green restaurant” certificate. In order to make all stages of production in the restaurant industry more sustainable in Türkiye and to lead this transformation, the “Green Generation Restaurant Management” certification system was established in partnership with Boğaziçi University and WWF-Türkiye. Restaurants with the Green Generation Restaurant certificate not only reduce their negative impacts on nature, but also reduce their cost output in the long run by saving on fuel, water, equipment, material, supply and waste costs.

The common principle of all green generation restaurant certification programs is to attract the attention of the public and to lead the industry for non-profit sustainability. With the green restaurant movement, sustainable and eco-friendly products and operating methods are preferred. These restaurants also

respond to the needs of customers who tend to prefer natural and green ones.

It is thought that the increase in the number of green restaurants, which are not very common in Türkiye, will make significant contributions to the country’s economy. Simple measures such as abandoning the use of table cloths, using napkins obtained from recycled paper instead of cloth napkins, re-evaluating the last rinse water as the first washing water can be important savings in restaurants (Taş & Olum, 2020).

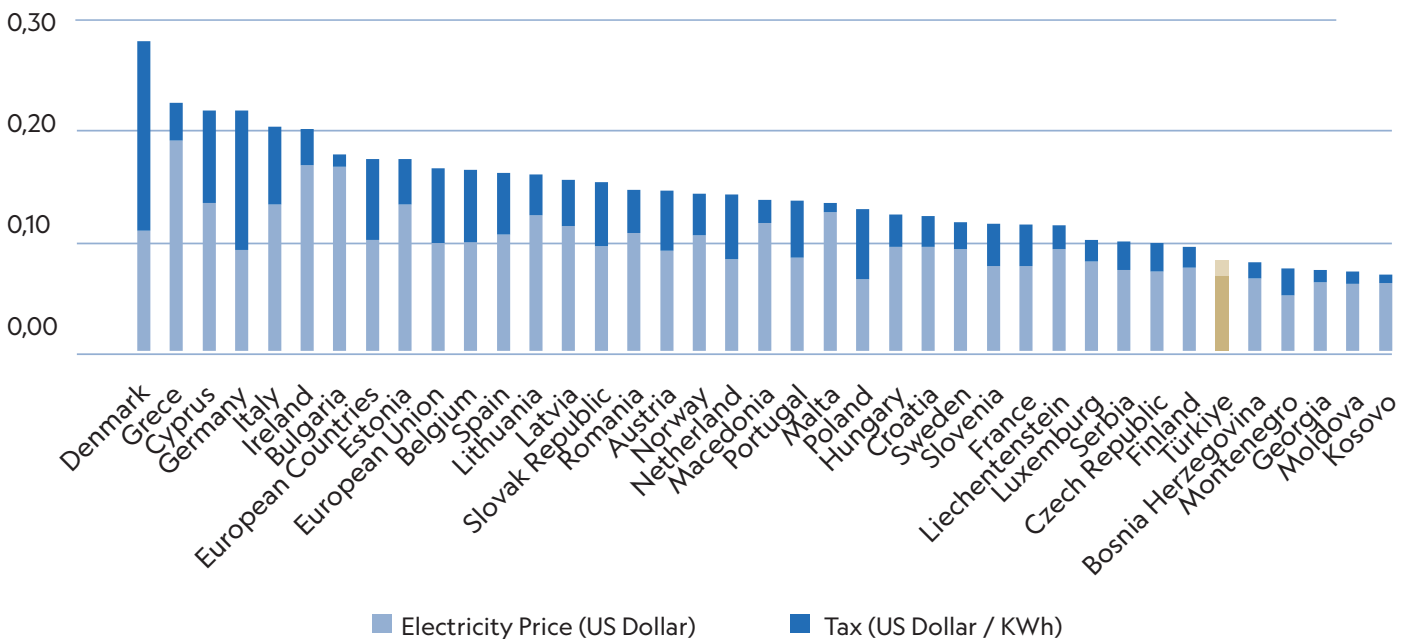
#### 1.4.7. Key Indicators Affecting the Sector

There are many key indicators that affect the industrial food sector around the world. Some of these are industrial electricity prices, industrial gas prices and labor cost per employee.

Considering the GDP of the countries, industrial electricity prices are among the main factors affecting production. And this makes exports of countries against foreign currencies and foreign currency inflows to the treasury of countries even more important.

\*Calculated as EUR/USD = 1.06.  
Source: Eurostat, 2022.

**Chart 5: Industrial Electricity Prices by Country in 2021 (Kwh/Dollars)**



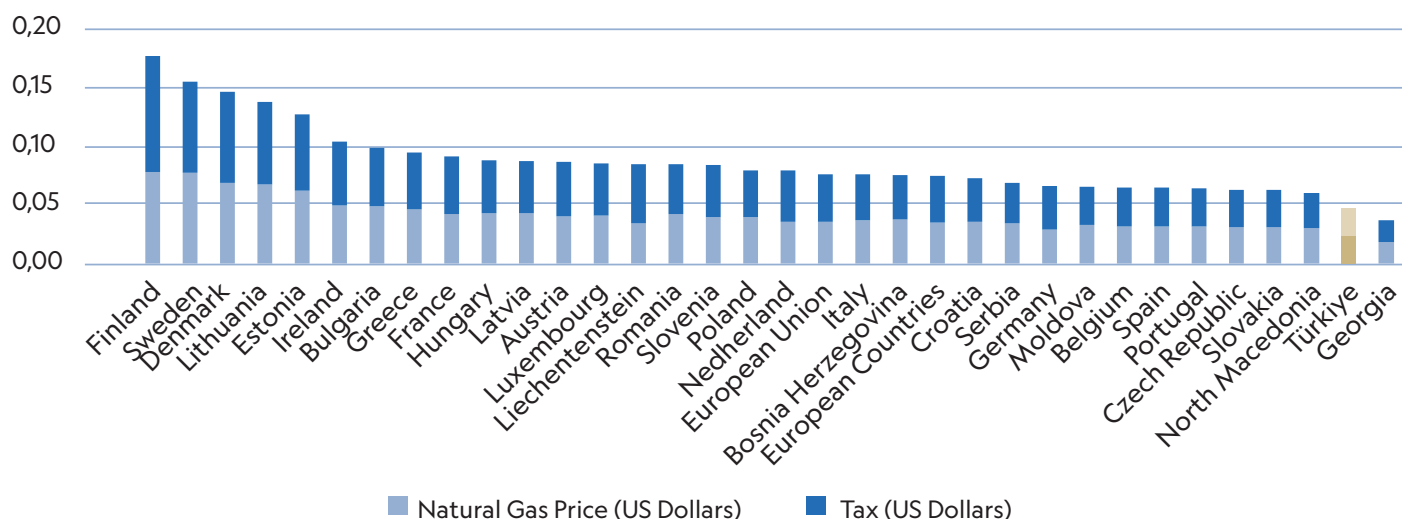


## GLOBAL OUTLOOK OF THE SECTOR

European countries have become dependent on Russia in the last 50 years due to the inadequacy of natural gas resources. Because of this dependence of European countries, Russia used its energy policies as a power factor. The fluctuations in prices over time could not reduce Russia's dominance of natural gas energy in the region. Especially in recent years, the orientation towards alternative and sustainable energy sources in Europe has accelerated with the Russia-Ukraine crisis. Due to this crisis, it is predicted that the increase in natural gas prices in European countries will continue.

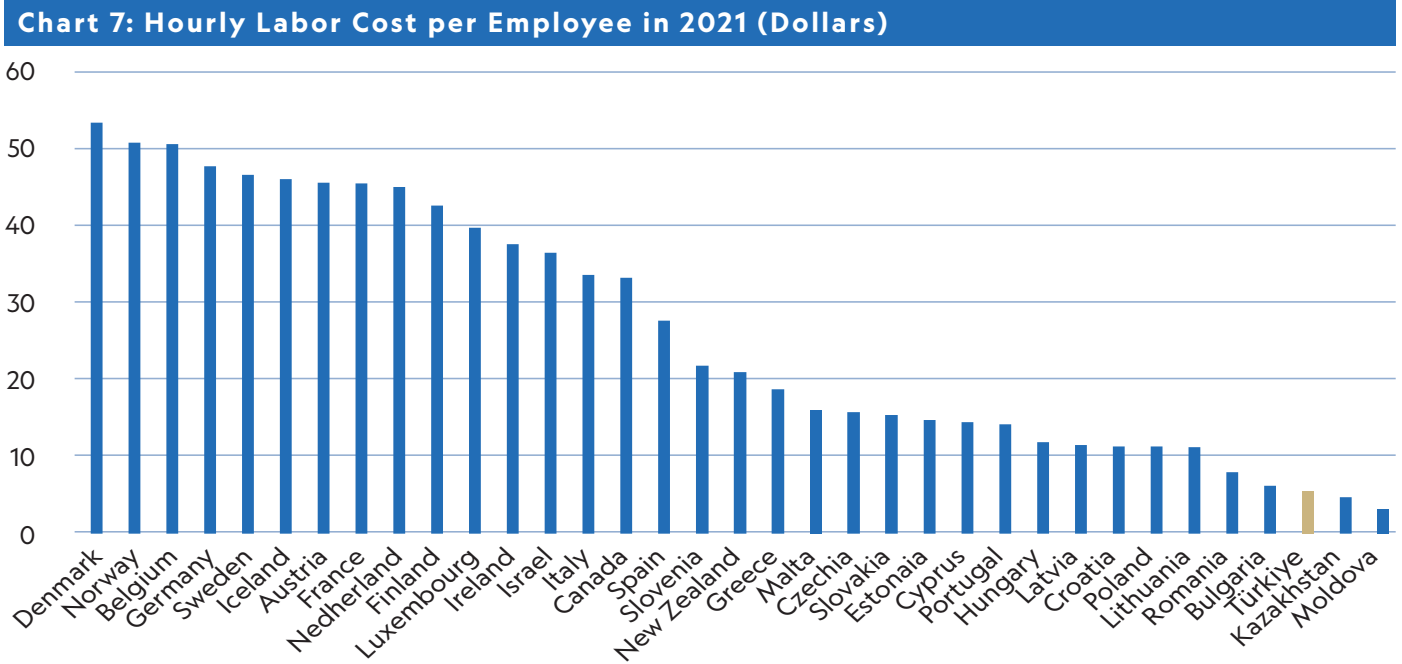
Source: Eurostat, 2022.  
\*Calculated as EUR/USD = 1.06.

**Chart 6: Industrial Gas Prices by Country in 2021 (Kwh/Dollars)**



The fact that labor costs are low in developing or underdeveloped countries makes these countries attractive to establish production facilities. However, the root causes of low labor costs are being a rule of law, corruption index, economic and political stability, income justice, human life index, freedom of the press, individual rights and freedoms. Therefore, the low tendency of investors to the countries with low aforementioned development indicators causes low labor costs in these countries.

Source: International Labour Organization, 2022.





### 1.5. Food Crisis and Drought

#### 1.5.1. Food Waste

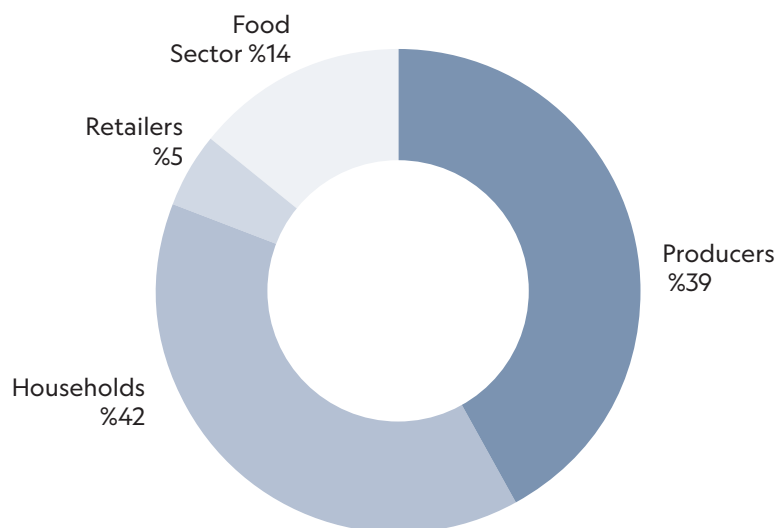
Almost a third of the food produced for human consumption is wasted across the entire supply chain from initial agricultural production to final consumption. This results in not only food wastage, but also the waste of resources used for production and the production of large amounts of greenhouse gases.

According to the 2021 United Nations Food Waste Index Report, wasted food worldwide has reached a total of 931 million tons annually. This figure corresponds to 17% of the ready-made food consumed, and it was stated that 61% of the waste originates from households (United Nations Food Waste Index Report, 2021).

Fruits and vegetables are among the most wasted foods in food waste. About 30% of fruits and vegetables are wasted before they reach the end consumer. When we look at the distribution of this waste, it is seen that 42% of the waste is created at home and 39% by the producer (T24 Bağımsız İnternet Gazetesi, 2021).

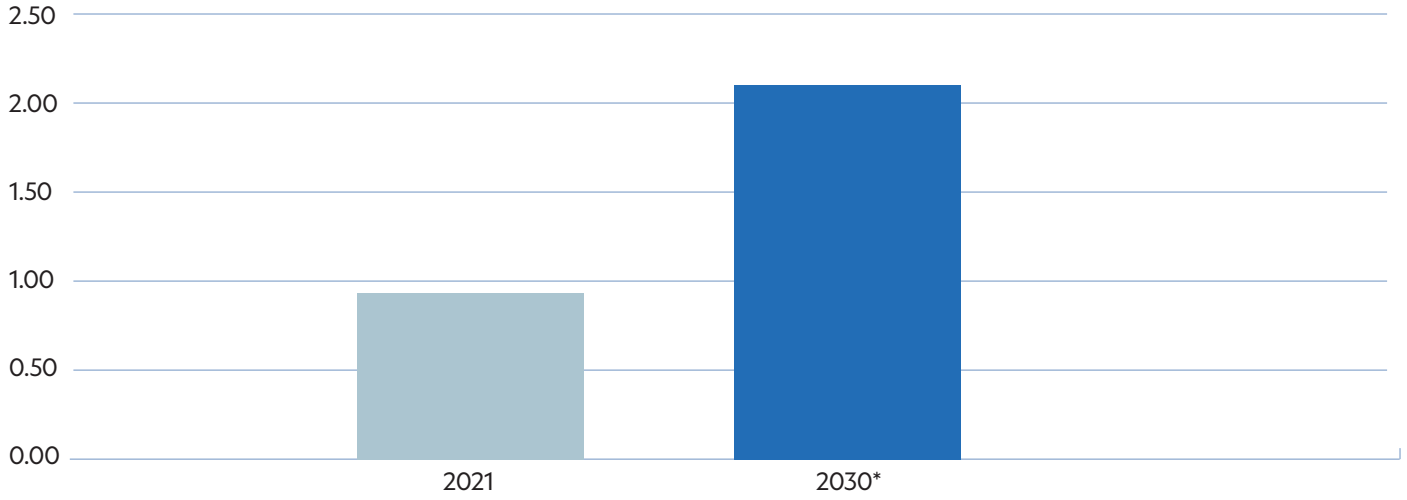
Source: United Nations Food Waste Index Report, 2021.

**Chart 8: Food Waste Distribution**



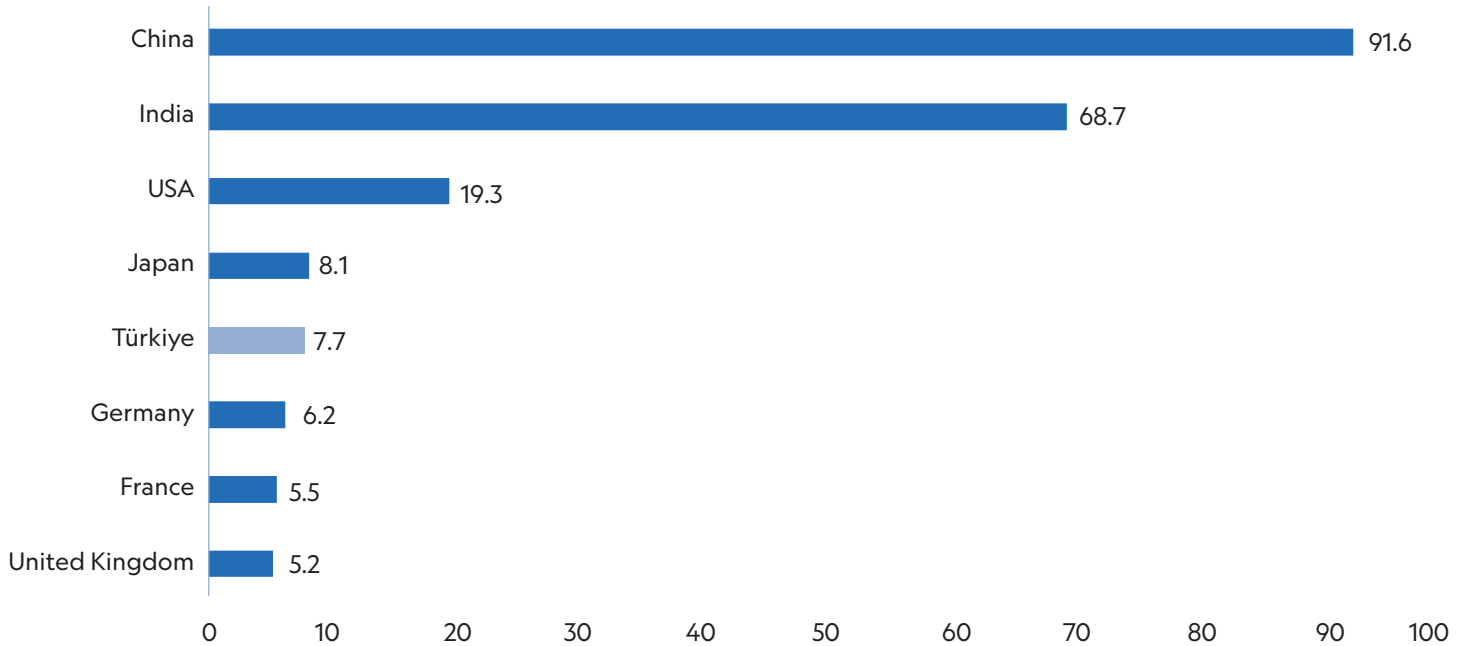


**Chart 9: Global Annual Food Waste Forecast (Billion Tons)**



The top 5 countries with the most wasted food are as follows: India, Nigeria, Indonesia, the United States and Pakistan (Sağlam, 2021).

**Chart 10: Total Food Waste in 2021 (Million Tons)**

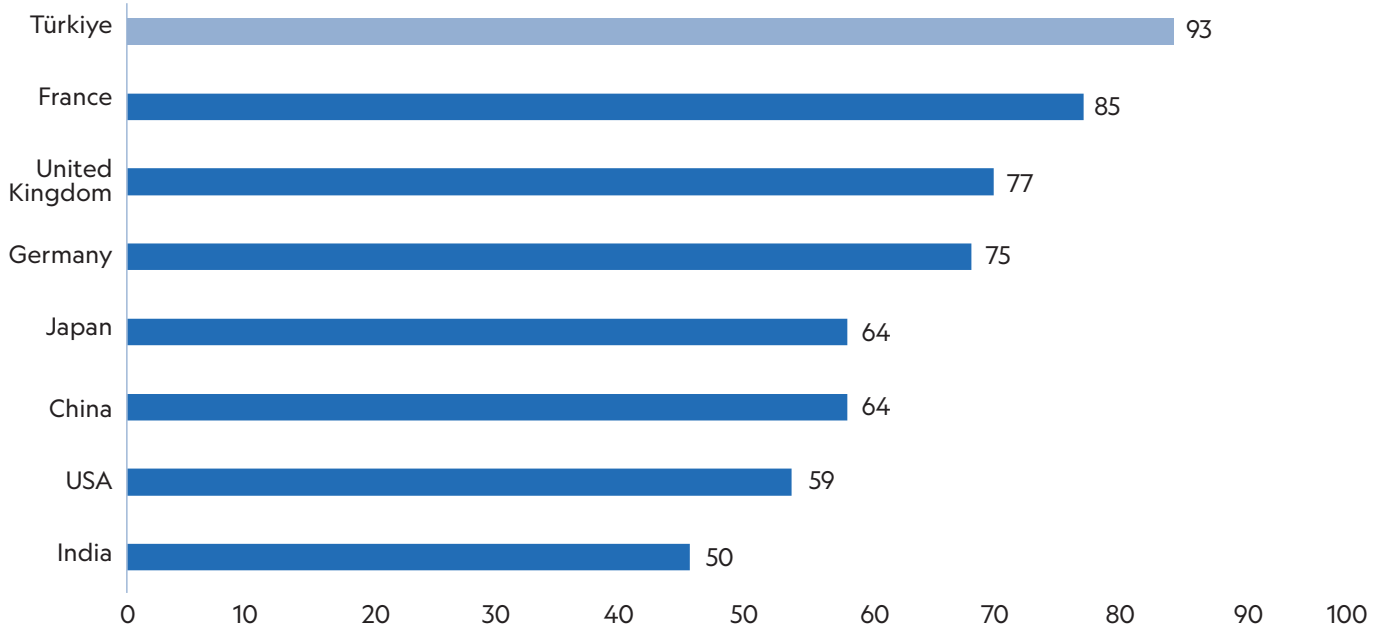


Considering the amount of food wasted per capita, Türkiye ranks third after the Democratic Republic of Congo and Mexico with 93 kilograms of food wasted per capita. However, among the countries that waste the most food, Türkiye is not included among the top 10 countries with 7.7 million tons of food wastage (Sağlam, 2021).



Source: United Nations Food Waste Index Report, 2021.

**Chart 11: Food Waste per Capita in 2021 (Kg/Person)**



Considering the above-mentioned figures as well as food production, which will increase in parallel with the rapidly increasing world population, it is possible that food waste will increase rapidly. According to the Food and Agriculture Organization of the United Nations, some steps that can be taken to reduce food waste, which is responsible for 8% of global greenhouse gas formation, are listed as follows (Reset Digital for Good, 2018):

- Reducing food losses during transportation, storage, processing and transportation with better infrastructure and trained individuals,
- Donating products that cannot be sold in large markets to charities,
- Ensuring the recycling of waste (for example, converting restaurant waste to bioplastic, household waste to biogas),
- Carrying out various informative activities, especially about packaging and labels, in order to increase consumer awareness and reduce food waste.

According to a study, it has been calculated that a total of 700 billion dollars can be gained, including 260 billion dollars with awareness activities, 270 billion dollars with supply chain infrastructure improvements, 170 billion dollars with cooperation and environmental policy studies (T24 Bağımsız İnternet Gazetesi, 2021).

### 1.5.2. Food Scarcity

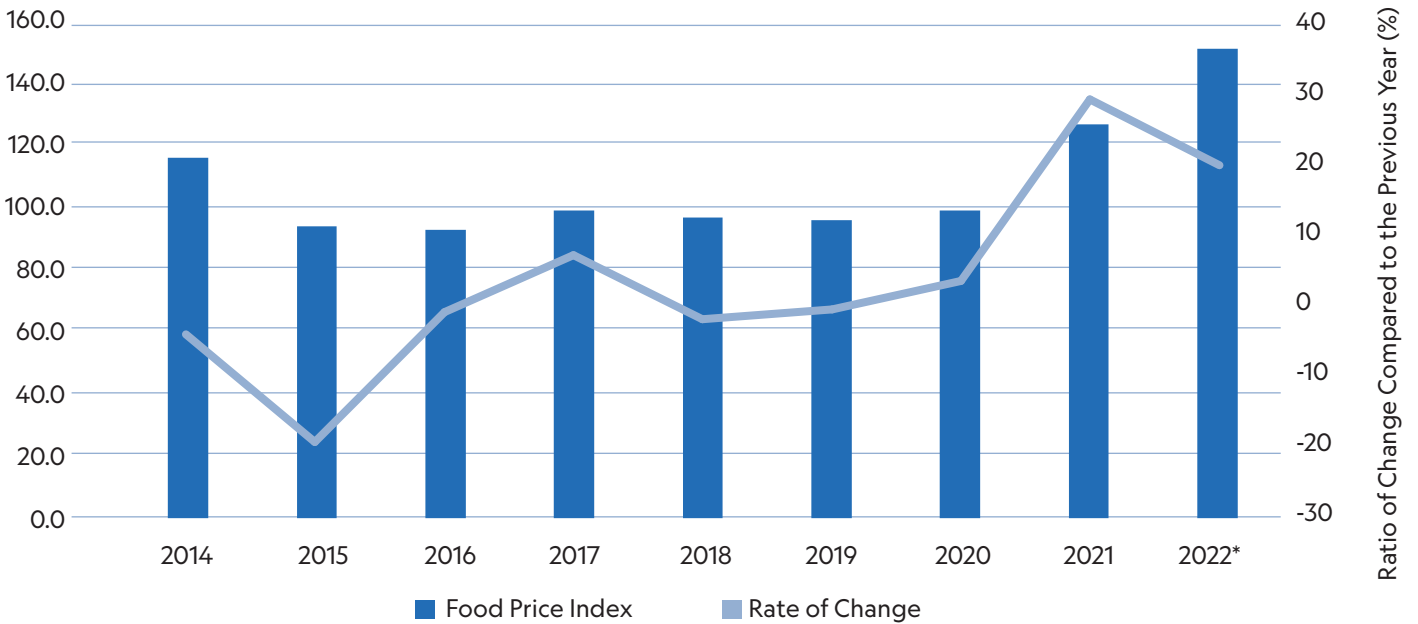
According to the Global Food Crisis report prepared by the Global Network Against the Food Crisis (GNAFC) formed by the Food and Agriculture Organization (FAO) of the United Nations and the World Food Program (WFP), 193 million people in approximately 53 countries experienced acute food insecurity at crisis-size or worse in 2021 (Seçkin, 2022). In addition to the aforementioned food waste, it is predicted that global crises and wars will increase global food insecurity and lead to global food shortages. According to the research conducted by the agricultural analysis firm Gro Intelligence in May 2022, there is enough wheat for world consumption for only 10 weeks. Due to the crisis between Ukraine and Russia, Ukraine's inability to remove its products from the country and the embargoes implemented by Russia in response to the embargoes started to cause the global food shortage crisis much earlier than expected (Vatansever, 2022).

According to The Economist magazine published in May 2022, the number of people who cannot find food due to the approaching food shortage and the increase in food prices has increased to 1.6 billion, while the number of people at the hunger limit has reached 250 million (T24 Bağımsız İnternet Gazetesi, 2022).

The Food Price Index published by FAO has reached the highest value of recent years with the average of the first seven months of 2022 (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022.  
\*The data for 2022 is the average of the first seven months.

Chart 12: Food Price Index for 2014-2022



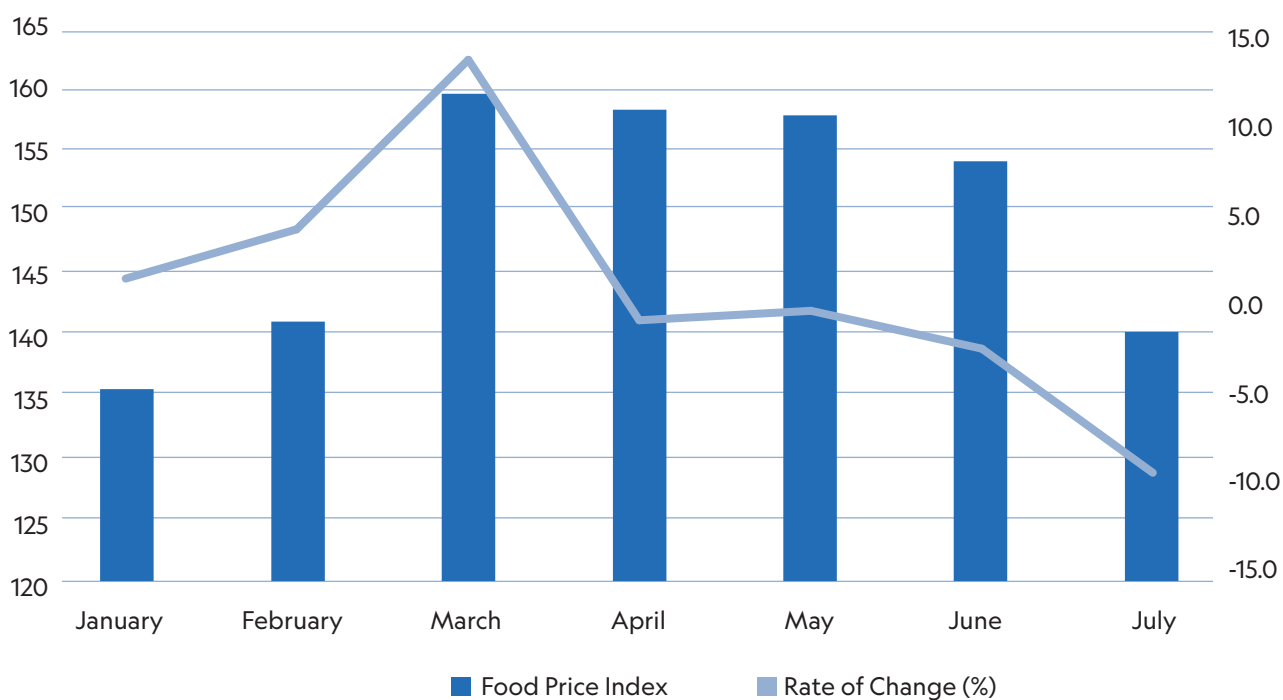


## GLOBAL OUTLOOK OF THE SECTOR

Looking at the year 2022, it is seen that the Food Price Index reached its highest value of all time in March and experienced a decline after April (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022.

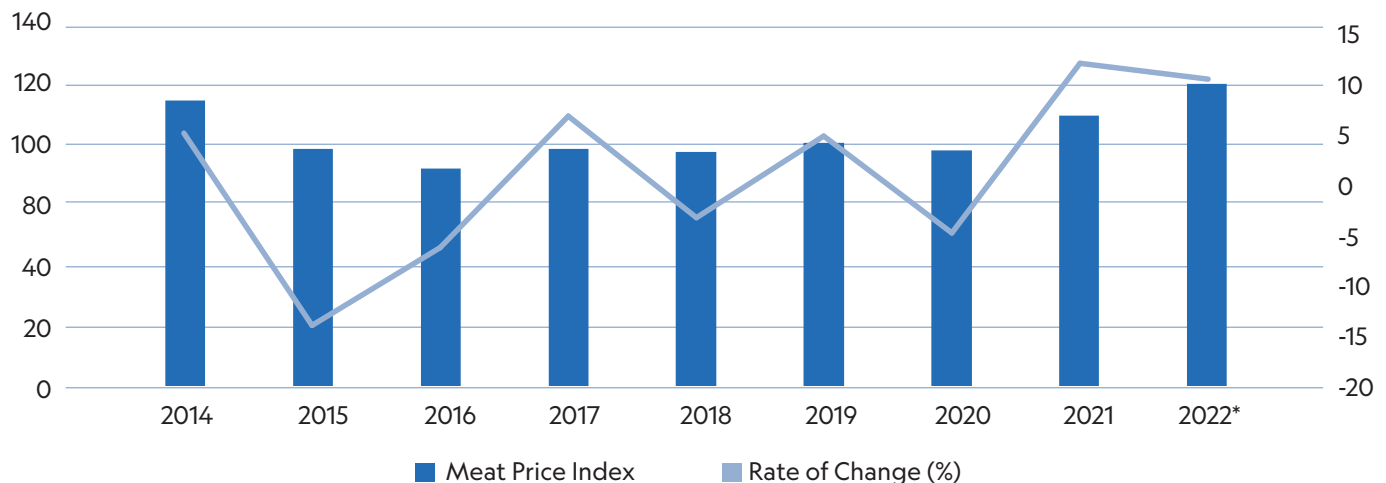
**Chart 13: Food Price Index for 2022**



While meat prices have followed a stable trend in recent years, a partial increase was observed after the pandemic. In addition to the price increases in items such as feed, medicine and energy used in raising livestock, the increase in consumer demand was also influential on the increase. However, when the average of the first six months of 2022 is considered, it is seen that the meat price index has reached the highest figure in recent years (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022  
\*The data for 2022 is the average of the first seven months.

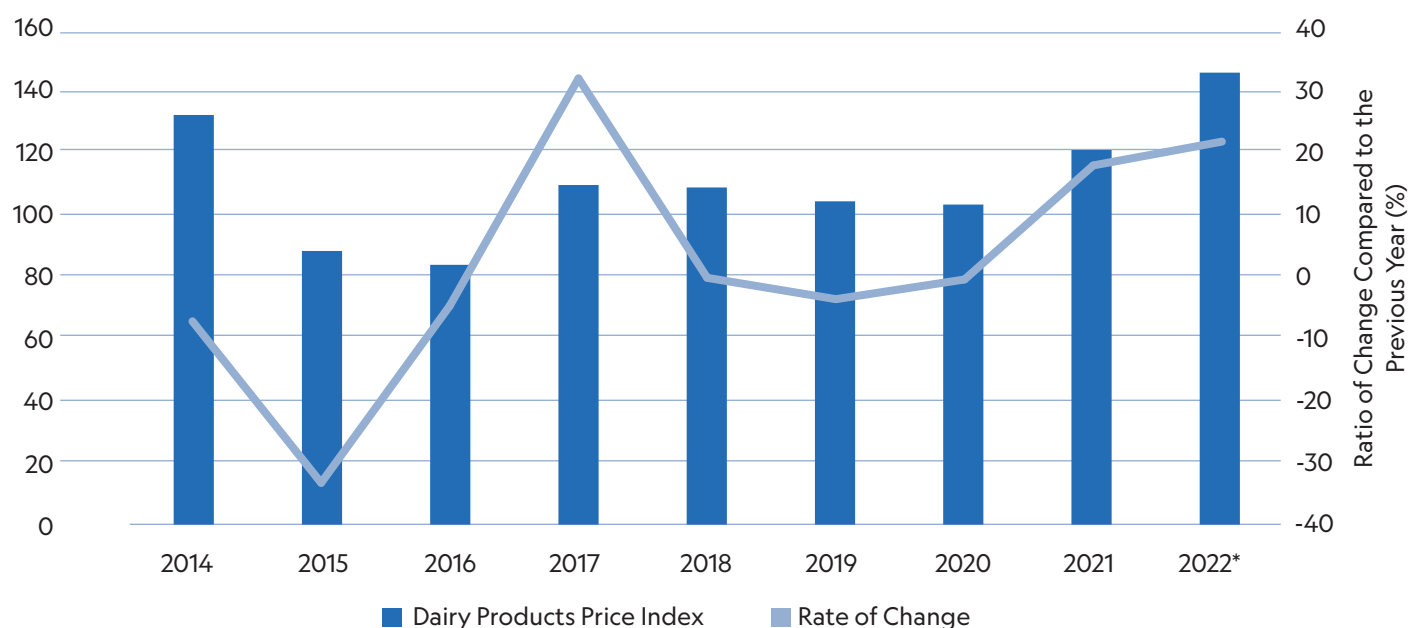
**Chart 14: Meat Price Index (2014-2016=100 Base)**



Especially due to the pandemic and the problems in the supply chain, the prices of milk-based products such as cheese and butter continue to increase. However, it is predicted that prices will return to their normal course with the effect of normalization in the supply chain. If we look at the milk and dairy products price index in recent years, it is seen that the average of the first seven months of 2022 has a much higher value compared to previous years (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022  
\*The data for 2022 is the average of the first seven months.

**Chart 15: Dairy Products Price Index (2014-2016=100 Base)**



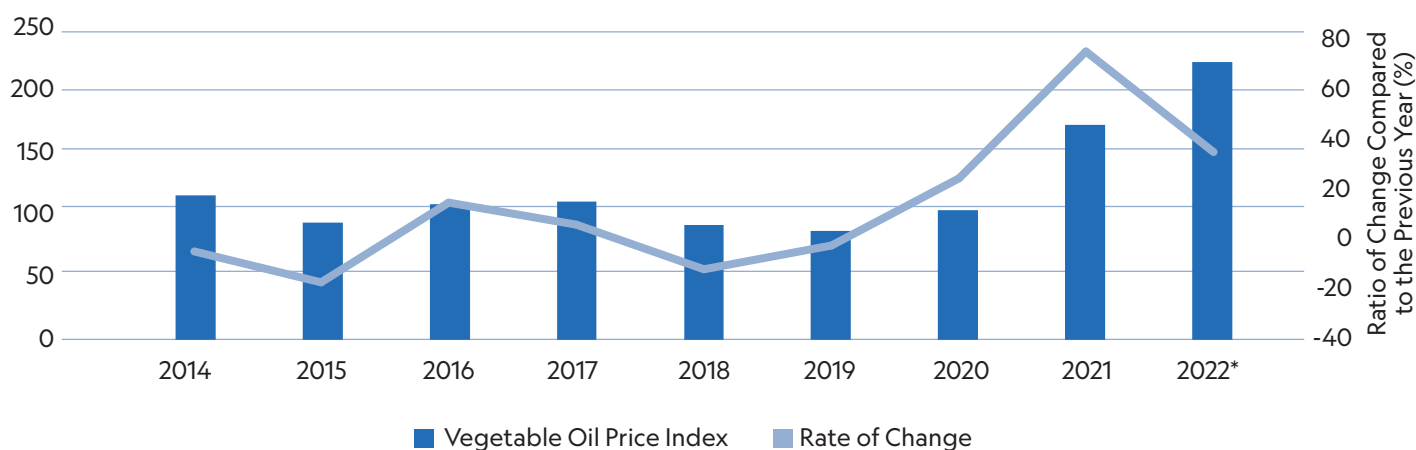


## GLOBAL OUTLOOK OF THE SECTOR

Vegetable oil prices, which increased during the pandemic, started to rise even more with the Ukraine-Russia crisis. It is thought that the prices will go up even further as the planting areas decrease, the South American-based harvest decreases and the agricultural workers stop working, and Indonesia, one of the world's largest vegetable oil producers, stops the supply. If we look at the latest figures, the Vegetable Oil Price Index, which showed a continuous increase until April 2022, reached the highest figure of recent years with the average of the first seven months, although it showed a slight decline in May and June (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022.  
\*The data for 2022 is the average of the first seven months.

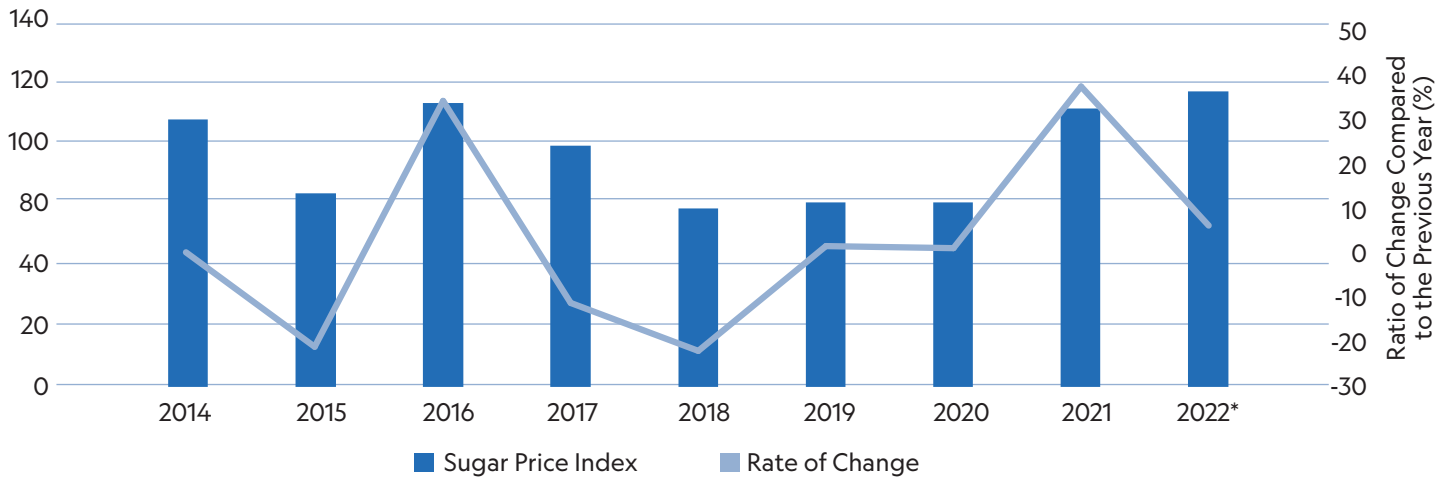
**Chart 16: Vegetable Oil Price Index (2014-2016=100 Base)**



Similar to the course of other agricultural products, the pandemic also affected sugar prices. The increase in ethanol demand and the annual consumption amount of 174.5 million tons despite the annual increase of 170.6 million tons according to the International Sugar Organization deepens the instability in prices (Gupta, 2021). When these instabilities are considered, it is seen that the Sugar Price Index has reached the highest value of recent years in 2022, according to FAO (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022.  
\*The data for 2022 is the average of the first seven months.

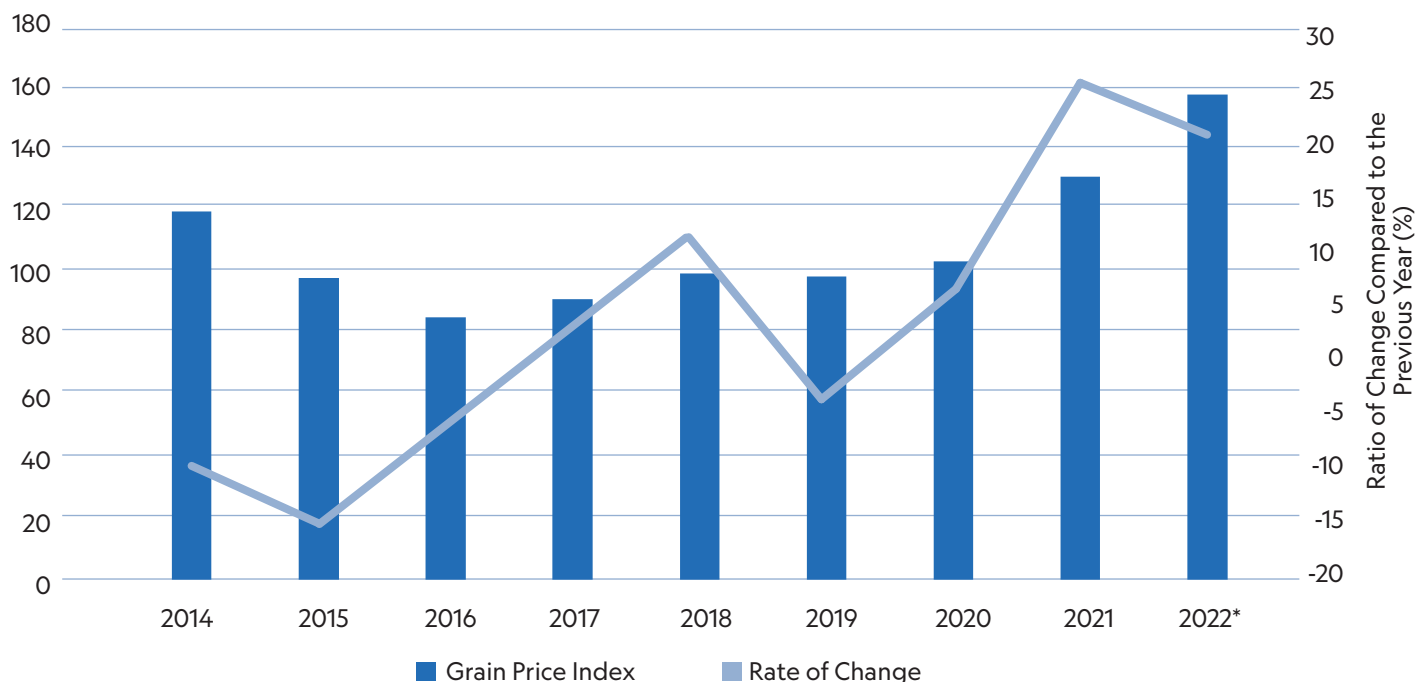
**Grafik 17: Sugar Price Index (2014-2016=100 Base)**



Drought and the Ukraine-Russia crisis, the effects of which have begun to be seen all over the world, are making the global grain supply difficult day by day. As Russia closed its grain reserves to exports in the crisis environment and the lands in Ukraine could not be cultivated due to military operations, the amount of accessible grain has decreased. While it is predicted that price increases will continue due to the chaotic environment in the near future, the Grain Price Index, which has been increasing continuously since 2019, showed an increase, including May 2022 and started to drop in June. This drop accelerated with the re-export of Ukrainian grain with the grain corridor agreement created by Türkiye, Ukraine, Russia and the United Nations in July. The Grain Price Index, which experienced a significant decrease of 11.4% in July, shows changes focused on geopolitical developments and short-term news flow, and follows a price course that is extremely sensitive to the breakouts that will occur especially in the Russia-Ukraine war. In this context, if we continue to get positive news, we expect decrease in grain prices in the rest of 2022 and in 2023. Although there is an opinion that this possible decrease may cause a significant relief in global food inflation, it should not be forgotten that this positive scenario rests on a fragile basis. (Food and Agriculture Organization of the United Nations, 2022).

Source: Food and Agriculture Organization of the United Nations, 2022.  
\*The data for 2022 is the average of the first seven months.

**Chart 18: Grain Price Index (2014-2016=100 Base)**





Wheat prices continue to increase with the recent global price increases. Since the beginning of 2022, wheat prices have increased by nearly 60%. World wheat production is estimated to be approximately 775 million tons (774.83 million tons) in the 2022-2023 season. It is expected that 4 million tons less production will be realized compared to the previous season and the decline in production is mainly due to Ukraine. It is calculated that the production of India from other producer countries will be 105 million tons instead of 111 million tons due to the extreme heat. A major change is not expected in European Union production. In Canada and Russia, the expectation is that the yield will be high, and the production will increase. Türkiye's production is expected to increase this year. A higher production amount is expected in the USA compared to last year. Morocco announced that its production will decrease by around 65% due to drought (Yıldırım, 2022).

In addition to wheat production, if we look at the change in the wheat prices, which remained stable in the 1960s, it is seen that there have been fluctuations since 1972. Wheat price decreased from 2014 to 2017 and increased again in the following years (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.

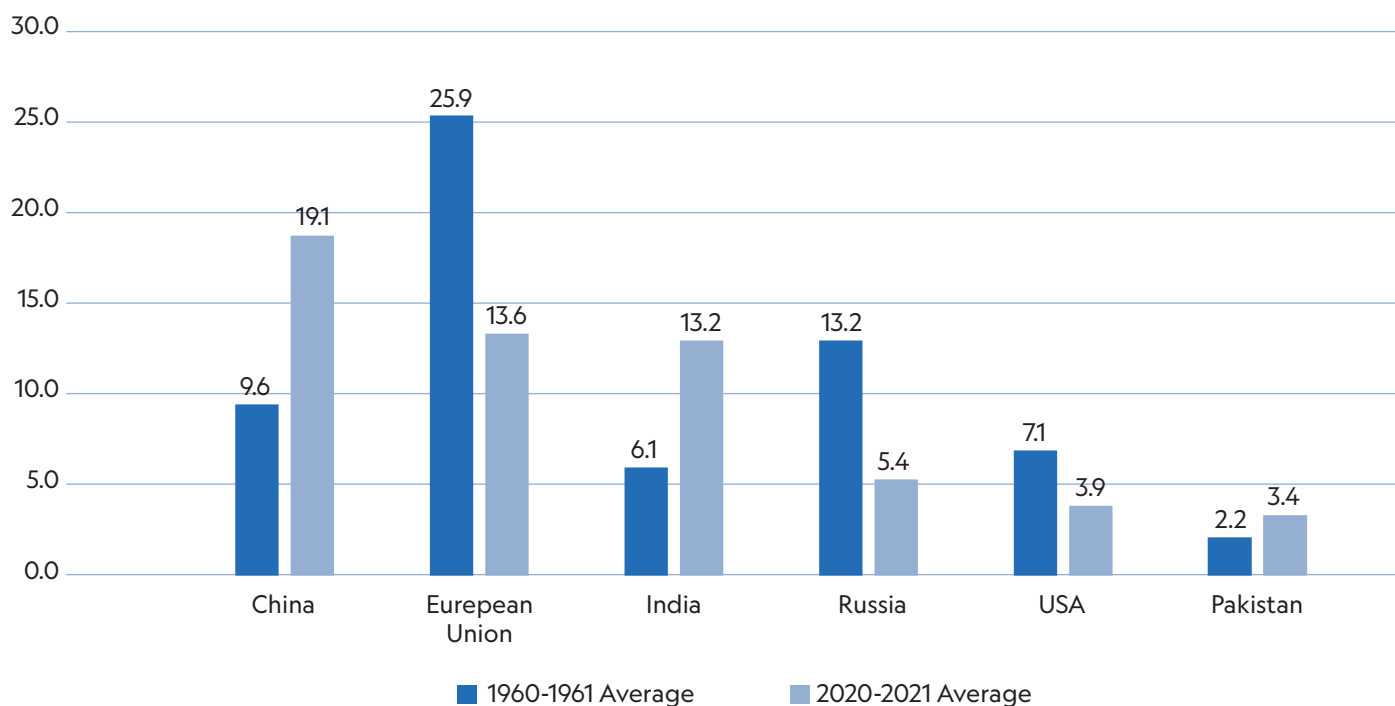
**Chart 19: Wheat Price Change Over the Years (Dollars/Ton)**

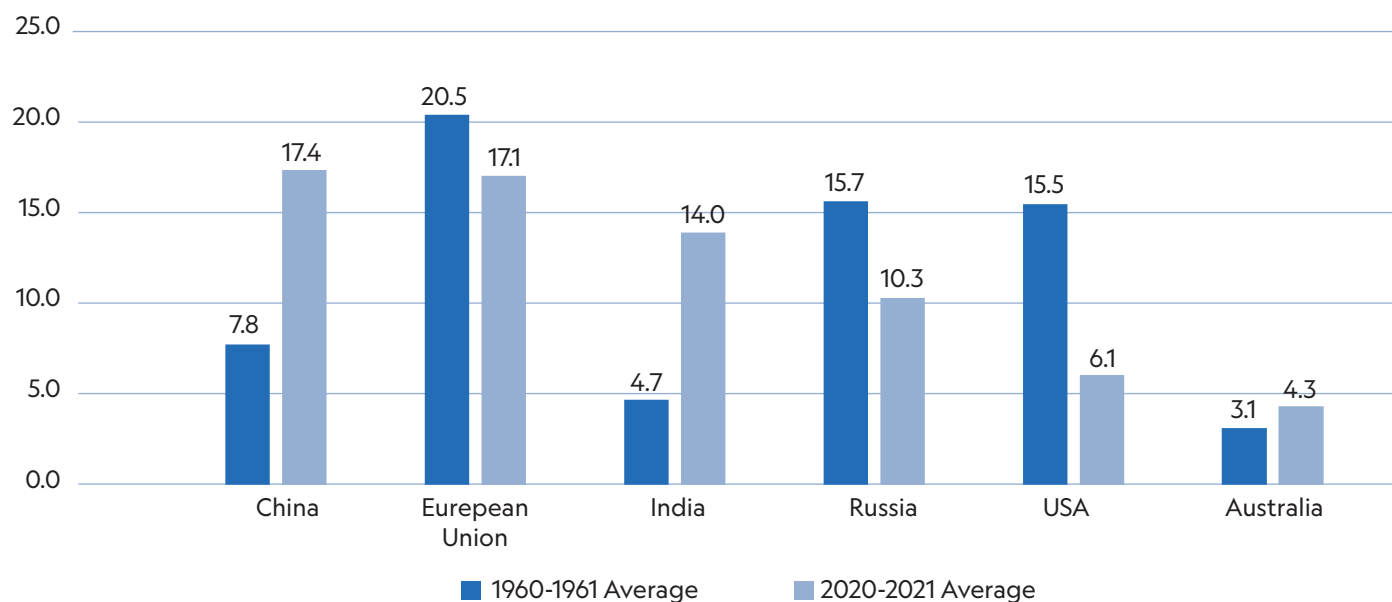


Looking at the changes in the last 60 years, it is seen that China and India accelerated in wheat production and consumption and increased their percentages in the global distribution. However, from the 1960s to the present, it is seen that the global distribution percentages of both the wheat production and consumption of the European Union, Russia and the USA have decreased (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

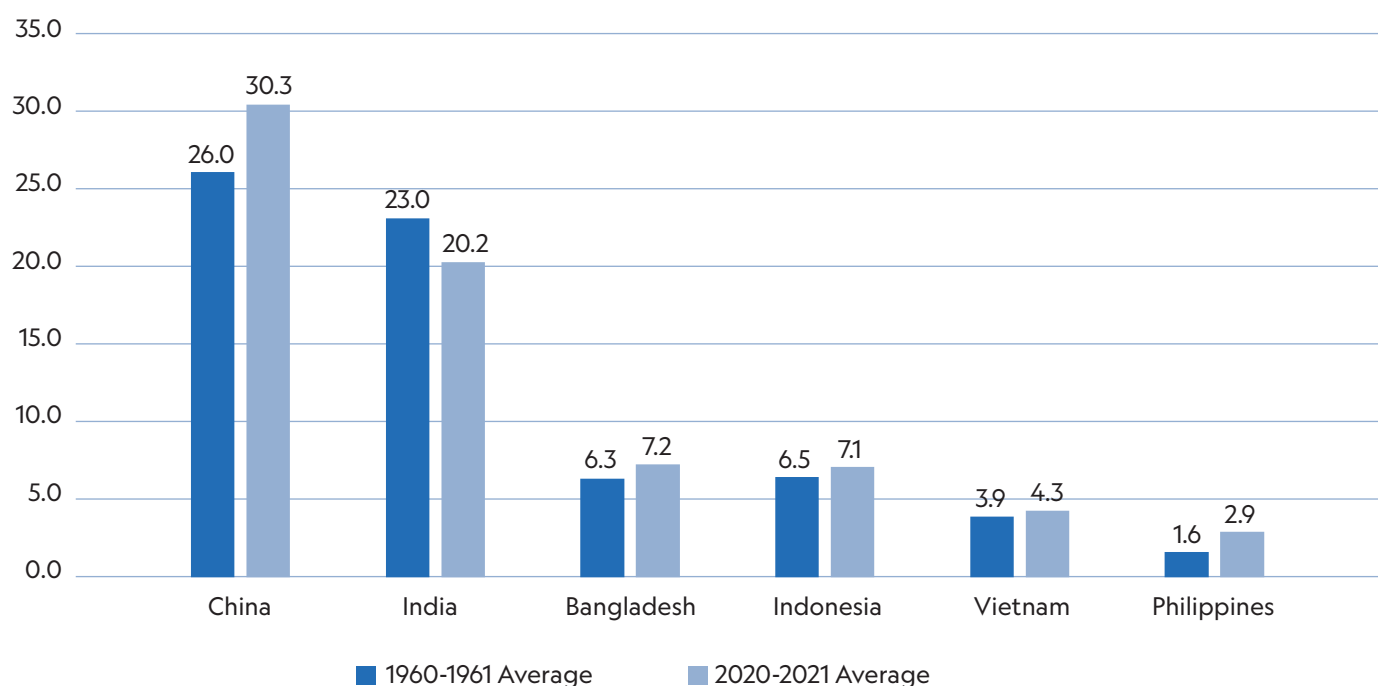
Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.

**Chart 20: Global Wheat Consumption Distribution (%)**



**Chart 21: Global Wheat Production Distribution (%)**

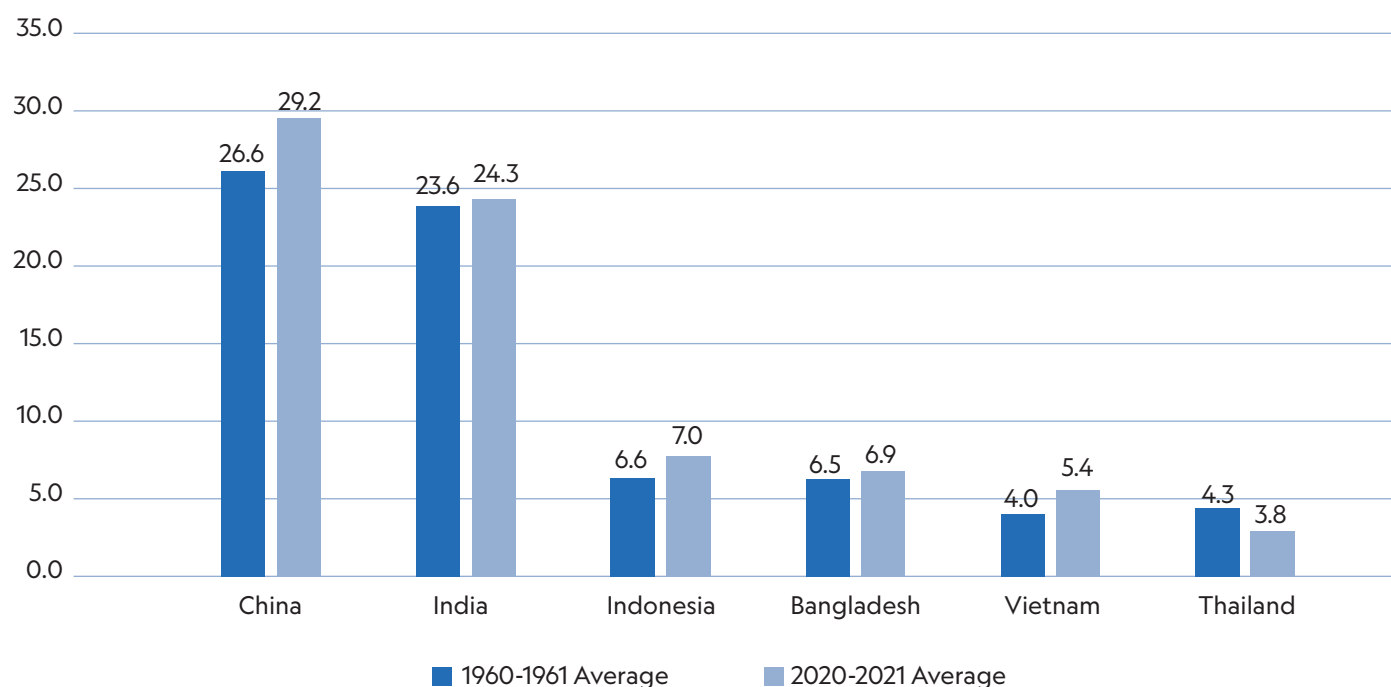
Looking at global rice production and consumption, China and India rank first in terms of both production and consumption, as is the case with wheat. However, compared to the average of 1960-61, the percentage of rice consumption of India has decreased (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

**Chart 22: Global Rice Consumption Distribution (%)**

Rice production is generally more common in these countries, especially since it is the main consumption item in Far Asian countries (Baffes, et al., *Commodity Markets: Evolution, Challenges, and Policies*, 2022).

Source: *Commodity Markets: Evolution, Challenges, and Policies*, 2022.

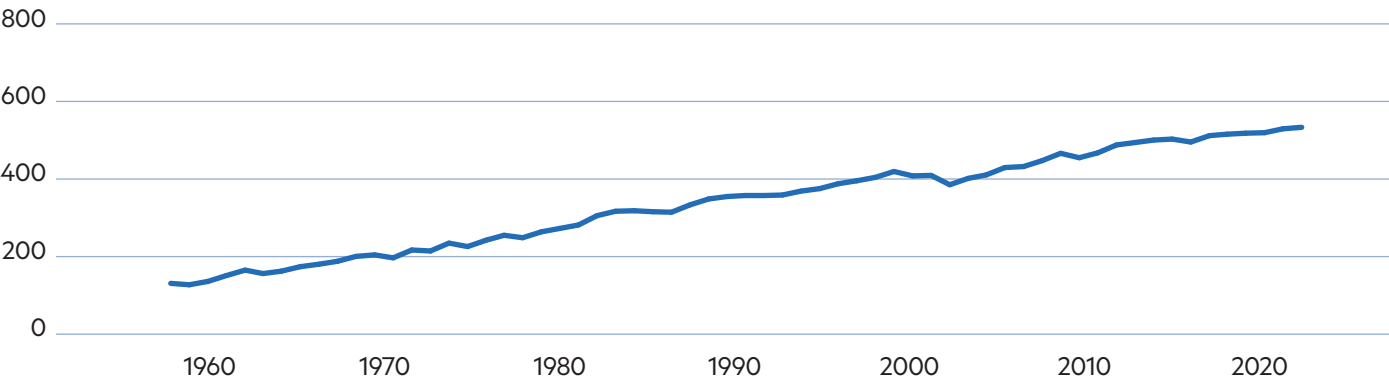
**Chart 23: Global Rice Production Distribution (%)**



In parallel with the increasing world population, rice production is increasing every year. This is because rice is easy to access and relatively affordable compared to other staple foods. Despite the increase in production, the upward trend in price is due to reasons such as India’s halting grain exports after the Russia-Ukraine crisis and the increase in agricultural costs. The chart below also shows that global rice production has been in an increasing trend over the years (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.

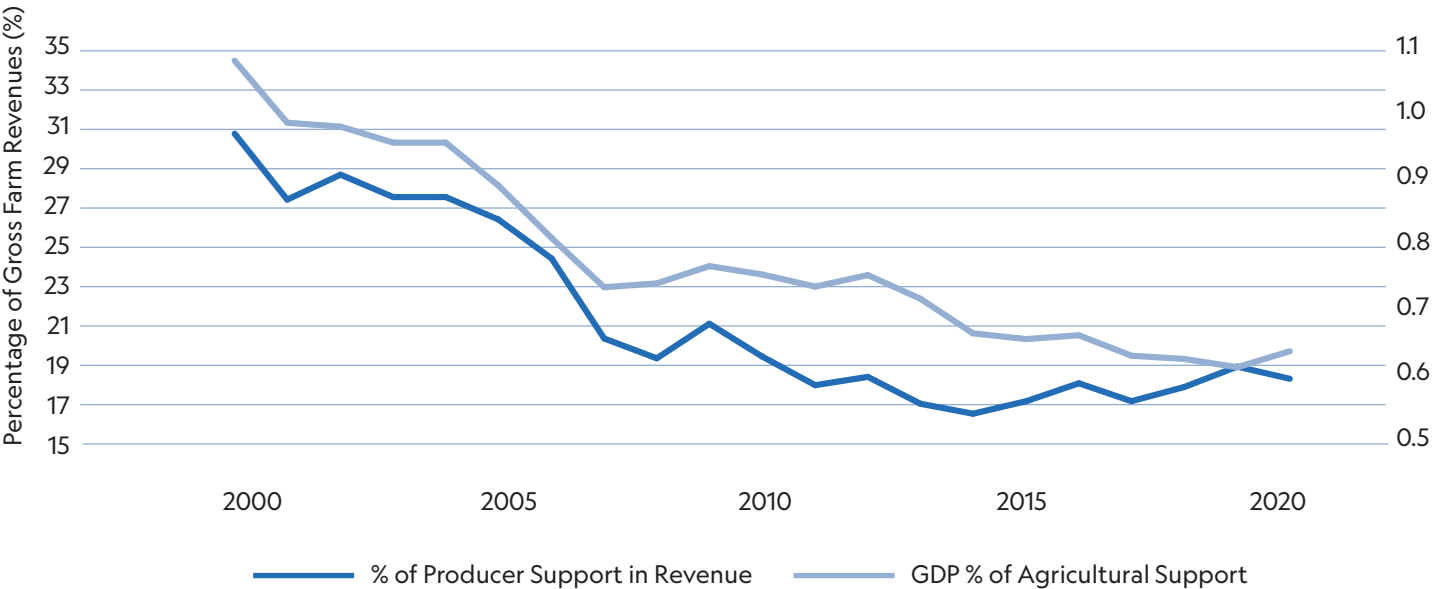
Chart 24: Global Rice Production (Million Tons)



In order to prevent the food crisis, the production of many main nutrients along with wheat and rice should increase worldwide. In this sense, it is important that individuals and States give much more support to agricultural production. Looking at the last 20 years, there has been an almost continuous decrease in the Gross Domestic Product (GDP) percentage of agricultural support (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.

Chart 25: Agricultural Supports Over the Years





# % 30

Russia was meeting 30% of the world's wheat and barley needs, one-fifth of corn's need, and more than half of sunflower oil.

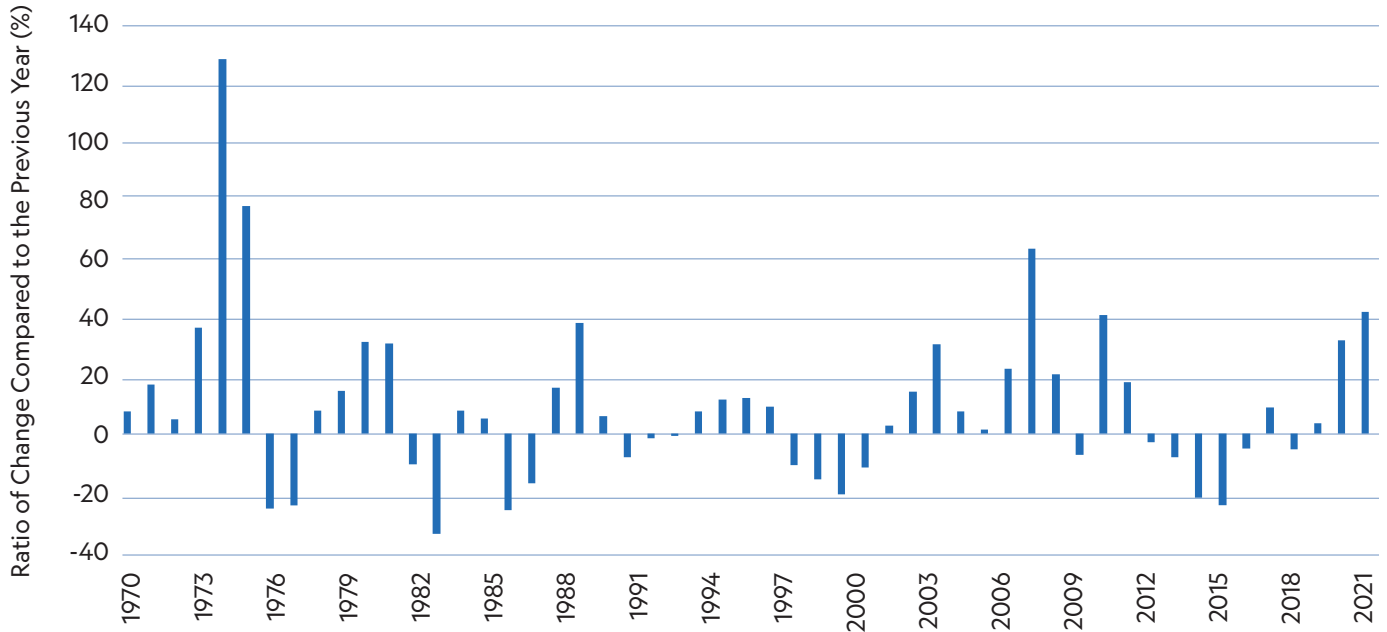
### 1.5.2.1. Effects of the Russia-Ukraine War

Russia was meeting 30% of the world's wheat and barley needs, one-fifth of corn's need, and more than half of sunflower oil. Although the effect of price increases is felt all over the world, the fact that 45 African countries and underdeveloped countries, which have to deal with very important problems such as poverty, hunger and drought, import one third of their agricultural products from these two countries, making the situation much more difficult for them.

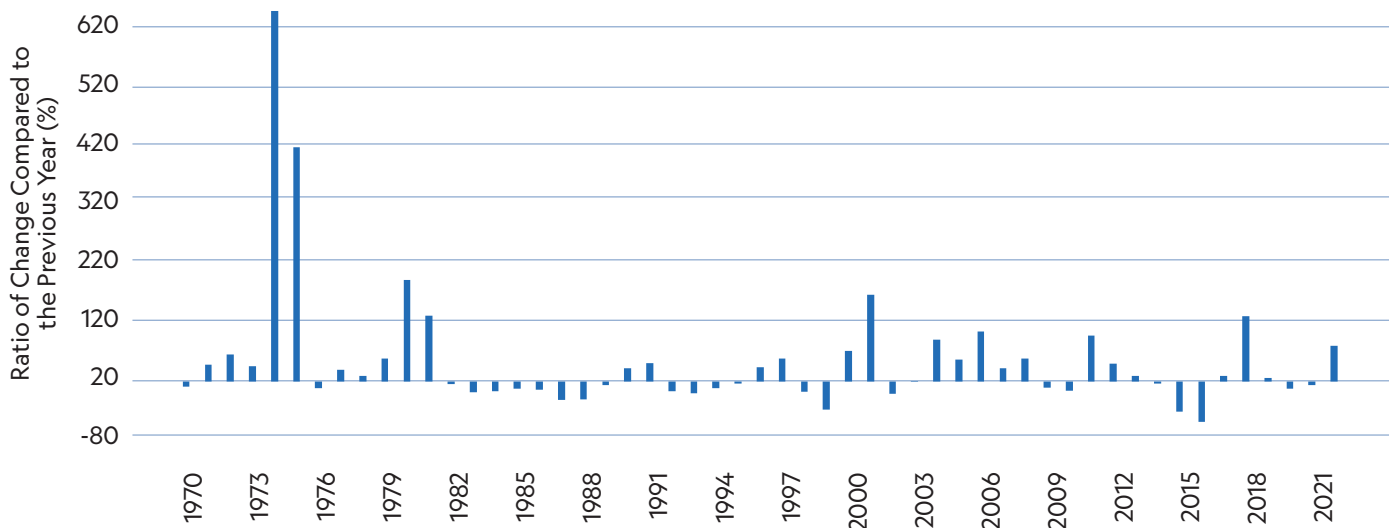
The global food supply chain is becoming more and more complex. The food market has become dependent on items such as trade, supply, logistics and storage, which brings both positive and negative aspects with it. This negative atmosphere created by the Russia-Ukraine crisis has a gangrene effect on the global environment that is currently struggling with climate problems and Covid-19. Many problems, such as the blockade of Ukrainian ports, the destruction of planting areas, agricultural workers taking part in the battlefield to defend their country, and difficulties in accessing fertilizers, etc., make the production of agricultural products impossible. On the other hand, the sanctions imposed on Russia and the export restriction imposed by Russia on agricultural products have made the situation unbearable. It is considered that this problem will gradually disappear with the establishment of an environment of peace. As of July, thanks to the grain corridor agreement reached by Russia and Ukraine

under the mediation of Türkiye and the United Nations, grain export started again from Ukrainian ports. Although it is a significant step towards a lasting peace, it has created a short-term relief in the global economy, especially in grain and food prices. In this context, it is important for the industry and its stakeholders to closely follow the geopolitical developments regarding the Russia-Ukraine War and its impact on global commodity prices.

There have been serious fluctuations in food prices with the effect of economic crises and wars from the past to the present. Today, it is seen that there has been a serious increase in food prices, especially with the effect of the war between Russia and Ukraine, which plays a major role in wheat and fertilizer. Although there is a short-term relief in prices in June and July, it should be considered whether the positive news flow will continue and whether this will be effective for the rest of 2022 and 2023 (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

**Chart 26: Change in Food Prices**

As in all production areas, energy prices, which directly or indirectly affect food production, will show a serious increase in 2022 and take its place among the factors of increase in food prices (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).

**Chart 27: Change in Energy Prices**

When the oil crisis in 1979 and the economic crisis in 2008 are compared with the energy prices of 2022, there has been an increase in coal and natural gas prices, and a decrease in the price of crude oil (Baffes, et al., Commodity Markets: Evolution, Challenges, and Policies, 2022).





## GLOBAL OUTLOOK OF THE SECTOR

Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.

**Chart 28: Real Changes in Crude Oil, Coal and Natural Gas Prices**

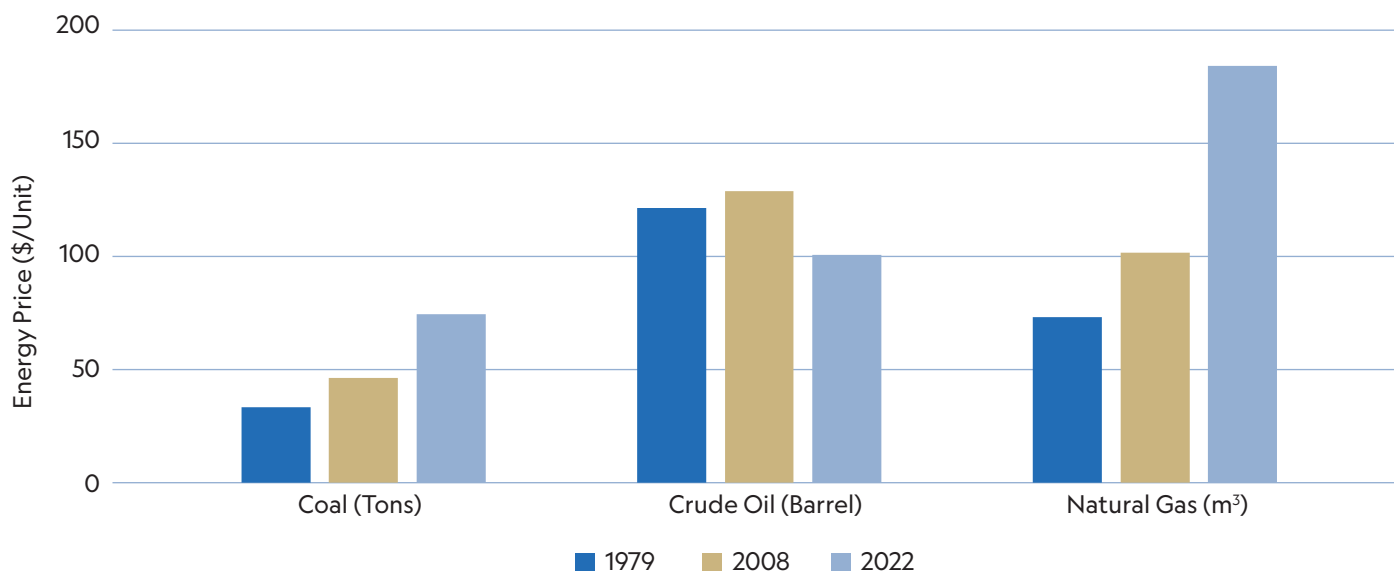
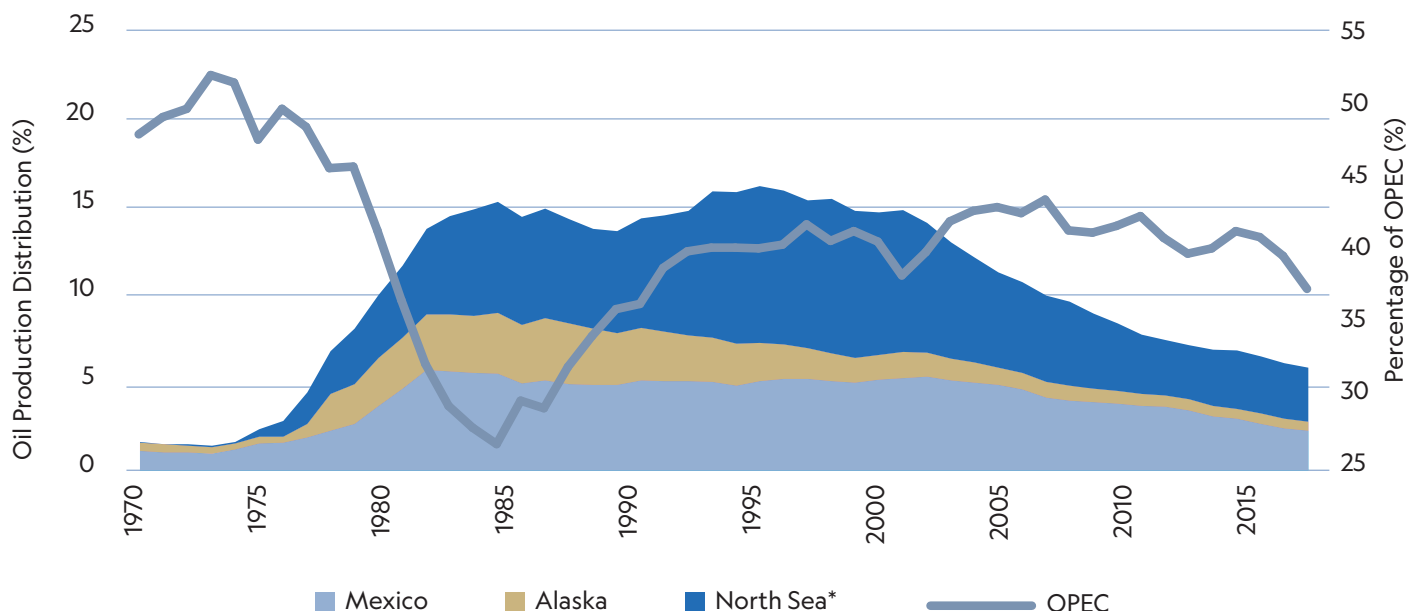


Chart 28 represents the real change in coal, crude oil and natural gas prices based on the year 1979 in the light of the data received by the World Bank.

Source: Commodity Markets: Evolution, Challenges, and Policies, 2022.  
\*Shows production in the North Sea, Norway and the UK.

**Chart 29: Oil Production**



### 1.5.2.2. Sufficiency Balance of Türkiye

Koronavirüs, kuraklık, Ukrayna-Rusya savaşı gibi global risks such as coronavirus, drought, the war in Ukraine have brought the issue of self-sufficiency in agricultural production to the agenda in many countries, especially in countries with high geopolitical risks such as Türkiye. Along with the increasing threats on the supply and procurement side, as well as risks such as drought, access to food and food security are among the issues that need to be seriously addressed.

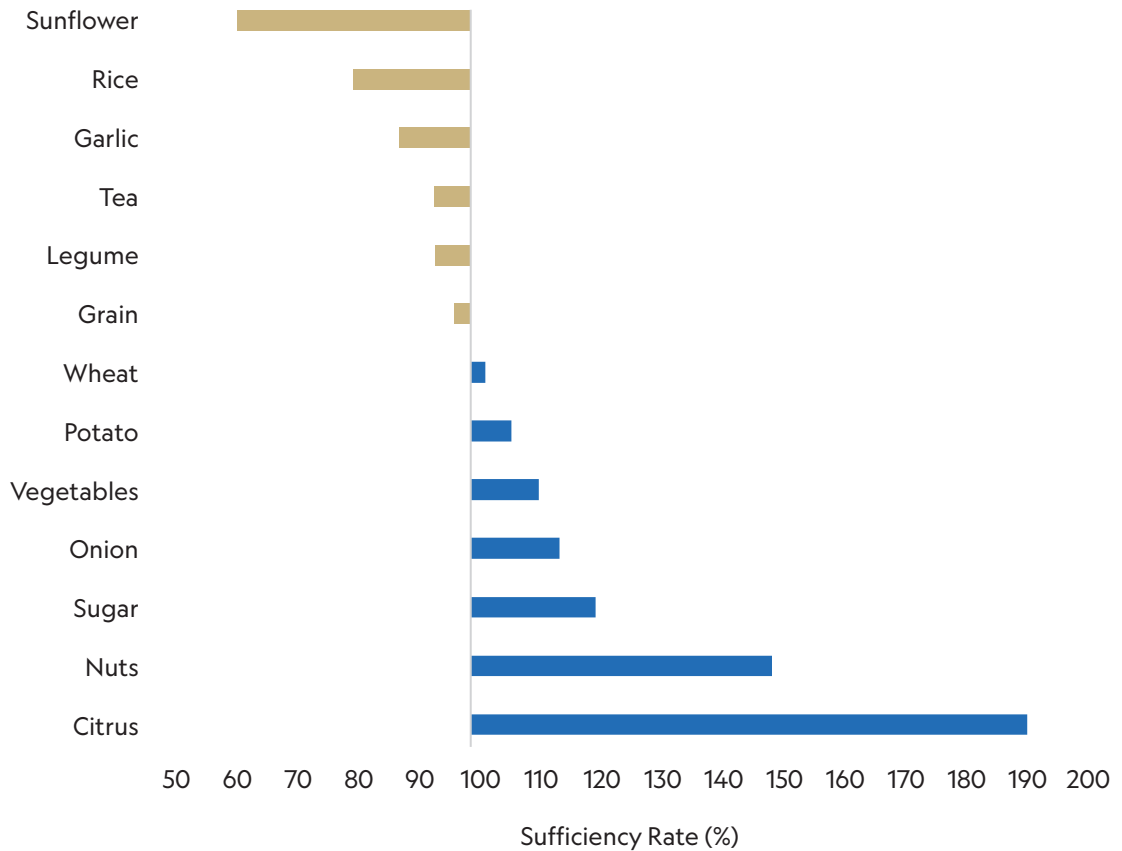
In Türkiye, which hosts the highest number of illegal refugees, illegal immigrants and foreigners with residence permits in 2022, there are over 7-8 million Syrian nationals, and nearly 4-5 million other foreigners coming from countries such as Afghanistan, Pakistan, Iraq, Libya and some African countries.

And their number is increasing day by day due to insufficient border security, and most of them are young men. In the upcoming period, this problem will bring along the problem of food insufficiency, rather than only a problem of national security, order and survival for Türkiye. Despite the increasing population and consequent increase in consumption with the contribution of these conditions, agricultural production unfortunately does not increase at the same pace in Türkiye.

According to TURKSTAT, Herbal Product Balance Tables, 2020-2021 data, the degree of meeting domestic demand (sufficiency) of domestic production in total grain products in the 2020-2021 market period was 97.4%. In total vegetable products, this rate was calculated as 110.9% (TURKSTAT, 2022).

Source: TURKSTAT.

Chart 30: Balance of Some Products in 2020 - 2021

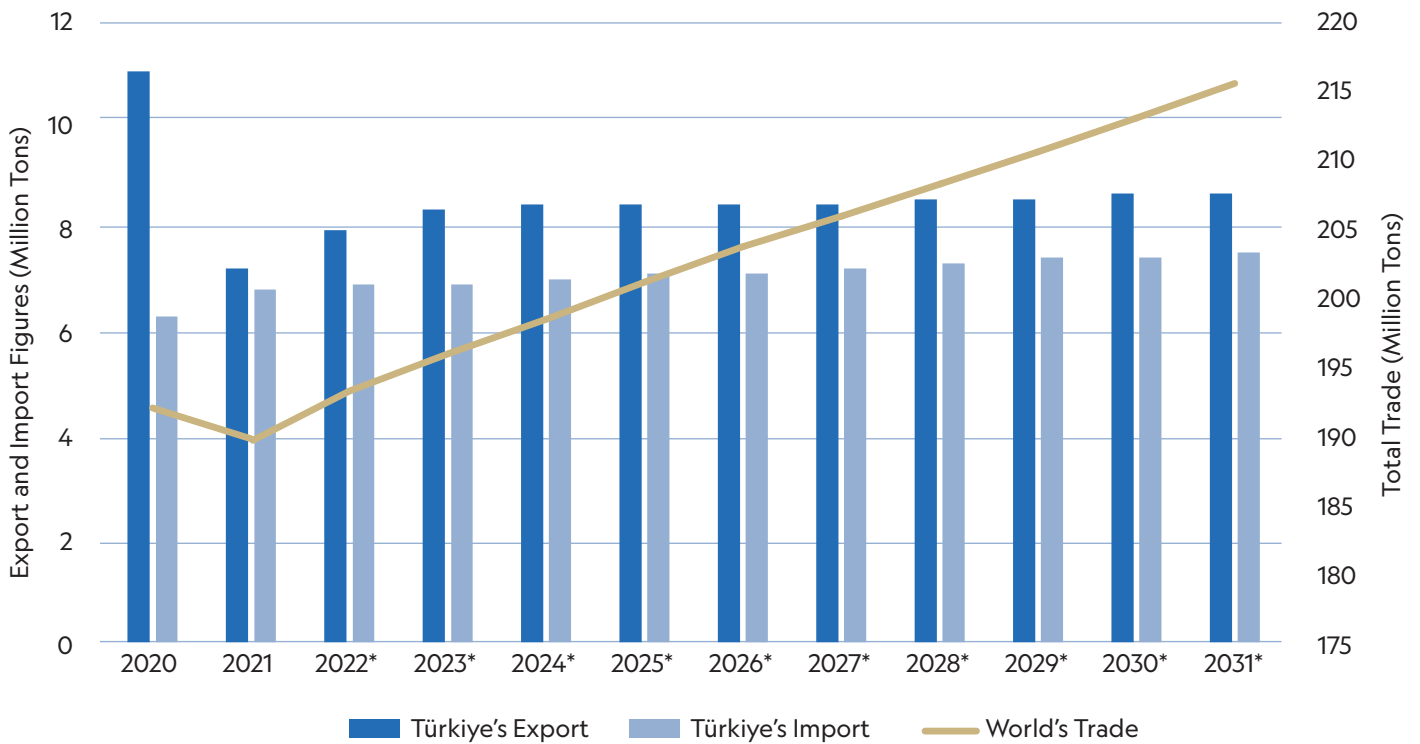


The degree of sufficiency indicates to what extent a region's usable production (domestic production) can meet the demand of that region or its domestic use (all the needs of human, animal and industry). A value less than 100 represents situations where production cannot fully meet domestic demand, while a value greater than 100 indicates existence of exportable and/or storable quantities that exceed normal domestic needs.



Source: Interagency Agricultural Projections Committee, 2021.  
\*The marked years are estimates.

**Chart 31: Foreign Wheat Trade Forecast**



# %80

Drought will continue to be a very serious problem in Türkiye as well, where 80% of the food produced comes from dry agricultural lands where only rainwater production is made.

### 1.5.3. Drought

With the effect of global warming, precipitation regimes change considerably as a result of the unusual course of the seasons. This situation complicates the irrigation of agricultural lands, and also limits the access of livestock to feed sources. It is evaluated that the effect of drought will cause food problems especially in underdeveloped and developing countries.

Drought will continue to be a very serious problem in Türkiye as well, where 80% of the food produced comes from dry agricultural lands where only rainwater production is made. According to the Turkish Ministry of Environment, Urbanization and Climate Change, 22.5% of Türkiye's land is at high risk of desertification. In 2021, yield losses occurred in 65 provinces of Türkiye due to drought, and crop losses reached 70% in some places. It is predicted that the frequency and duration of high air temperatures will continue to increase, precipitation will decrease, forest fires will increase, and agricultural product and livestock productivity will decrease further in Türkiye.

Countries that innovate in agriculture, especially the Netherlands, produce solutions to overcome many different problems, including drought. Among the studies, there is also hydroponic and even dry farming.

### 1.6. Sectoral Forecasts

The growth of the industrial food sector is accelerated by the stable economic growth predicted in many developed and developing countries. Despite that, the global conjuncture that emerged as of the second quarter of 2022 and the technical recession of the US economy raised important questions about the stability of global growth. In the new global economic outlook report published by the IMF in July, the growth forecasts for the Eurozone, China, India and other developing countries were lowered in addition to the USA. The stability of global growth should be closely monitored in order to increase the demand for the services offered by the industrial food sector and to positively differentiate the market.

The emergence of the coronavirus pandemic (Covid-19), the imposition of restrictions on domestic and international travel by governments globally, closure of workplaces or adaption of hybrid working models, closure of schools and universities and the shift in education to online has limited the need for the services provided by these institutions and caused a significant shrinkage in the market. However, as this sector is full of surprises, it is expected to recover and repair itself during the forecast period, regardless of the underlying fundamental weaknesses in the global economy (The Business Research Company, 2021).

# 2.

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Although the development of the industrial food sector in Türkiye was based on the military camps of the armed forces or the barracks in peacetime, it followed a parallel course with industrialization in the later periods. It emerged when the businesses wanted to meet the food needs of their personnel in a collective and systematic way as they gained a more corporate and professional identity. Thus, in addition to the companies, the number of which reaches approximately 100,000 today, many institutions such as schools, hospitals and public institutions benefit from the services of more than 5,000 industrial food companies.

## 2.1. History of Industrial Food Production

The ‘imaret’ system (public kitchens), which is considered to be the first example of collective eating in Türkiye, was put into operation thanks to the foundation culture, which had an important place in the Ottoman Empire system. Commercial inns always kept and produced food. The most important food production and coordination activity in the Ottoman Empire was to provide food for the soldiers going on the expeditions.

With the Ottoman Empire giving its place to the young and modern Republic of Türkiye, an important industrialization move started in Anatolia which led to the need for industrial food in factories. In Türkiye, industrial food production in the modern sense began to be made in the Republican period. Due to the lack of private capital, the first industrial food

production organization was made by the State and started to be carried out in factories and heavy industry establishments established by the government. In the 1960s, the foundations of industrial food production were laid to meet the food needs of the personnel in public institutions such as Turkish Sugar Factories and Sümerbank. In the following years, it started to provide services in many areas such as industrial facilities, public institutions and private sector with the information transfers coming from abroad.

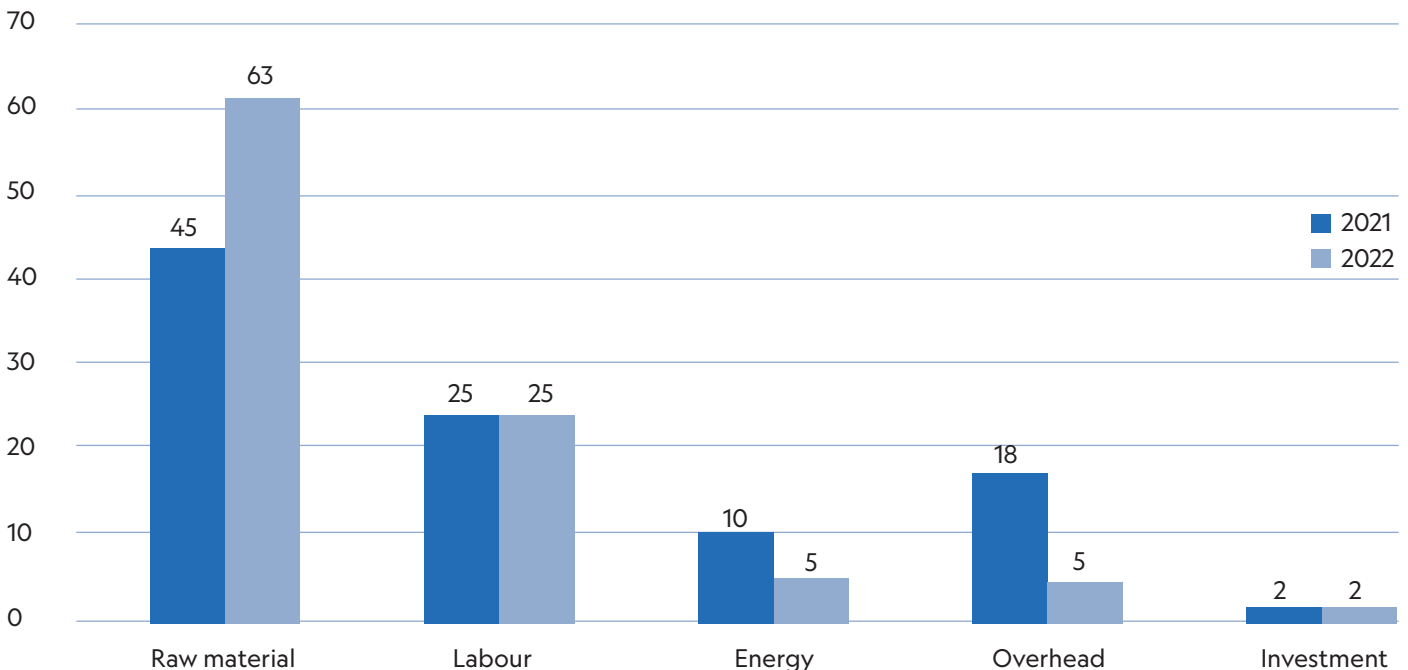
The industrial food production, which was organized with public resources in the first years of the Republic, continued to expand and modernize with the increase of private enterprise and the strengthening of the free market in the following periods, and now serves to more than 8 million people (Catering Türkiye, 2018).

## 2.2. Factors Affecting the Cost

There are many items that make up the cost in the industrial food sector. The percentage distribution of the food production cost in 2021 has changed in 2022 in the interviews with the leaders of the sector. Especially with the increase in raw material prices, the effect of raw material on the cost has also increased significantly. The percentage distribution of both years is shown in the chart below.

Source: Consulta Research.

**Chart 32: Distribution of Items Affecting the Cost (%)**





The table shows the breakdown of the global pandemic, global crises and economic fluctuations and the cost items whose percentage distribution has changed.

Source: Consulta Research.

**Table 23: Breakdown of Cost Items**

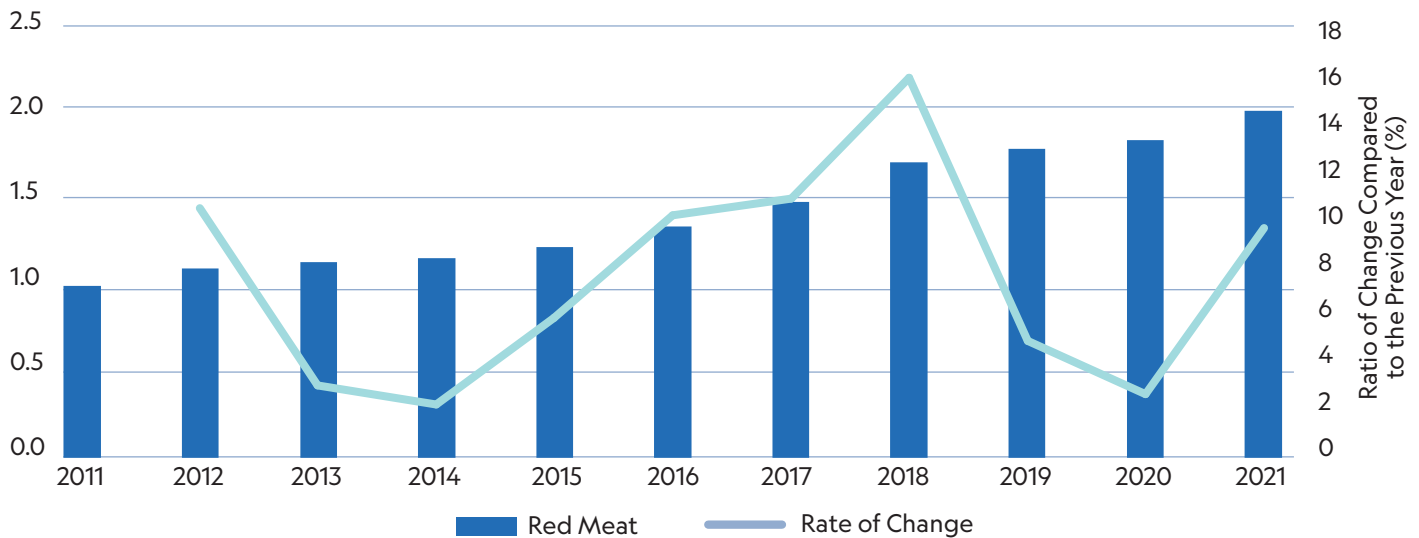
Raw Material	Meat and Meat products
	White Meat
	Dairy Products
	Bread
	Cereals and Pulses
	Fruit and Vegetable
	Oil
Labor	Employees
Energy and Logistics	Natural Gas
	Electricity
	Transportation (Transportation fees or fuel fees through contracted companies)
Overheads	Water
	Other
Investment	Kitchen equipment. etc.

## 2.2.1. Industrial Food Sector Raw Material Items

### 2.2.1.1. Meat and Meat Products

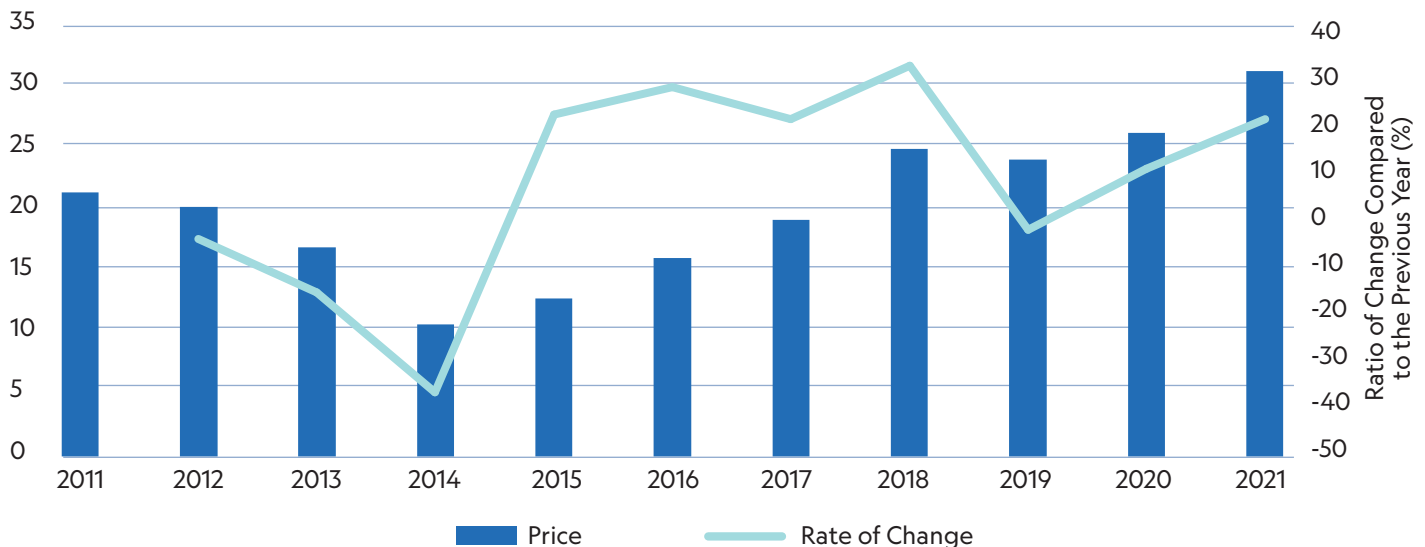
The follow-up and analysis of the prices of raw material items, which are widely consumed in the industrial food sector and which are in demand from the customers, are extremely important in terms of determining the main costs and the quote to be given per portion. Possible fluctuations in these items have the potential to directly affect company costs. Meat and meat products, dairy, grain, fruit and vegetable and oil prices can be defined as the main raw material items.



**Chart 33: Red Meat Production (Million Tons)**

It is observed that red meat production in Türkiye has increased regularly but at different rates in the last 10 years. Although production remained at the lowest rate of increase in 2020, red meat production doubled in 2021 compared to 2011. In the coming years, it can be expected that production will continue to increase with increasing demand.

Cattle prices also continue to rise due to increasing inflation, as in other raw material items. Although the rate of price increase is tried to be kept under control with the imports made in various periods, it is seen that the prices tripled in 2021 compared to 2014.

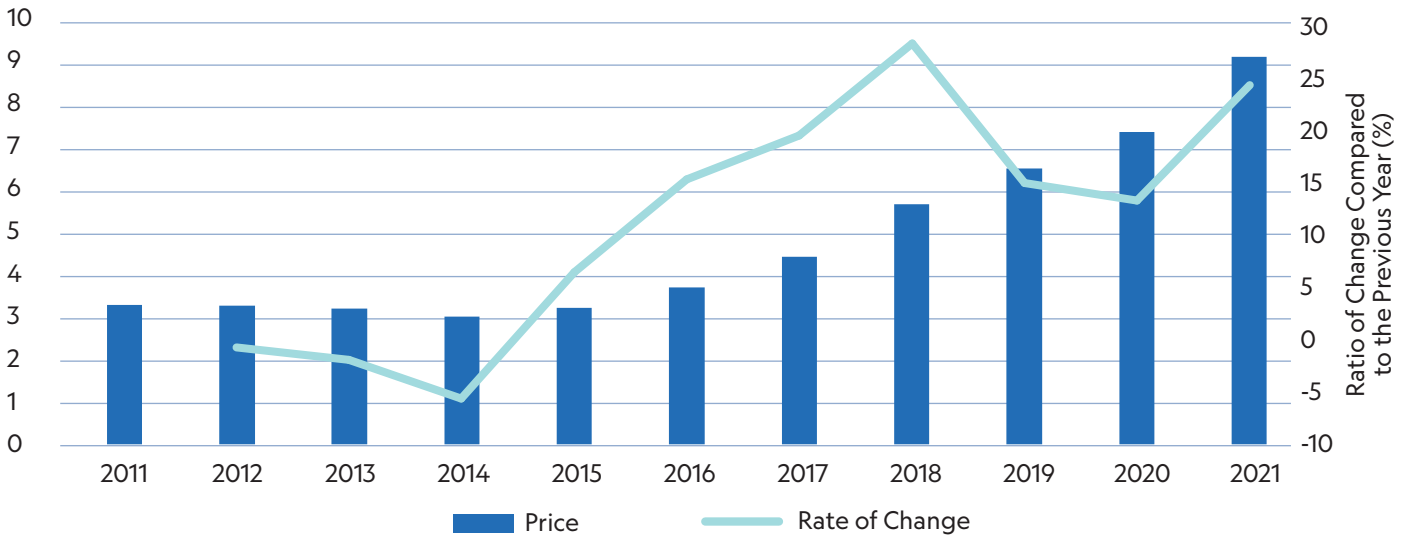
**Chart 34: Cattle Price (Thousand TRY/Head)**

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There is also a rapid increase in the prices of sheep and goats, and it is observed that the rate of increase sometimes exceeds the ratio of increase in cattle prices. At this point, it can be said that import planning is effective. In addition, due to the rapid increase in the costs of animal breeders, the increase in the prices of sheep and goats should be expected to continue. .

Source: TURKSTAT.

**Chart 35: Sheep and Goat Price (Thousand TRY/Head)**

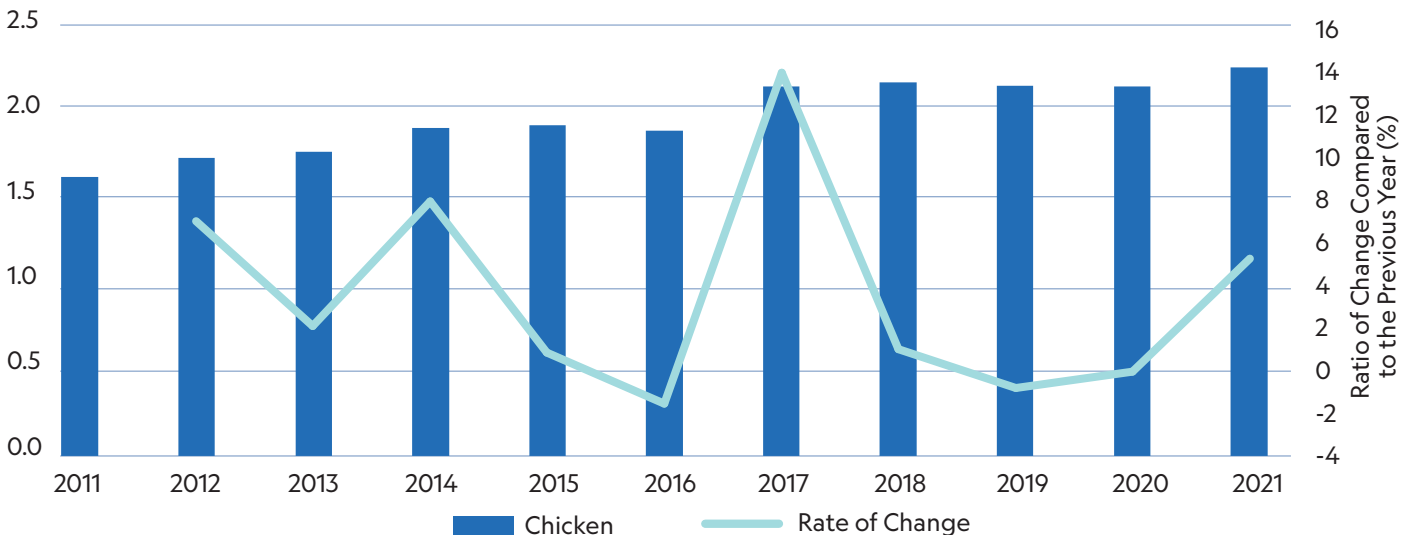


### 2.2.1.2. White Meat

Chicken (white meat) production, which showed an increase of 3% in March 2022 compared to the same month of the previous year, reached 202,938 tons in this month. The previous year's data is shown in the chart (TURKSTAT, 2022).

Source: TURKSTAT.

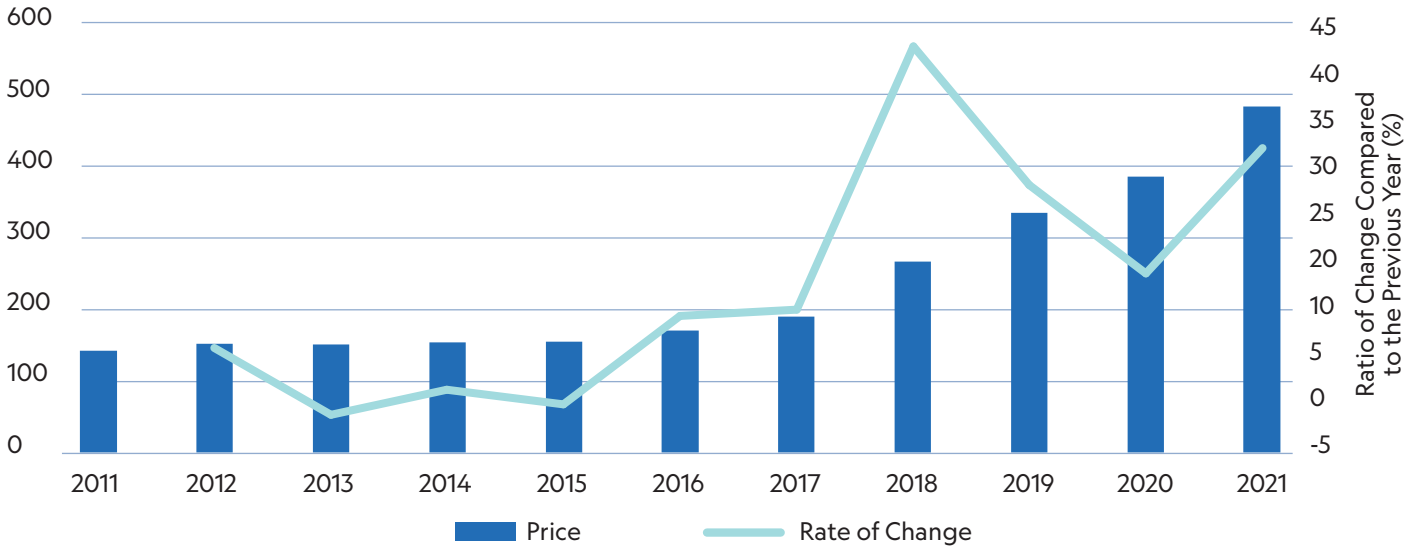
**Chart 36: Chicken Production (Million Tons)**



As seen in other meat groups, poultry prices have increased rapidly, especially after 2018, with annual increases of 20% or more. Rising exchange rates and global inflation and rising input costs have a negative impact on poultry prices.

Source: TURKSTAT.

**Chart 37: Poultry Price (TRY/Head)**

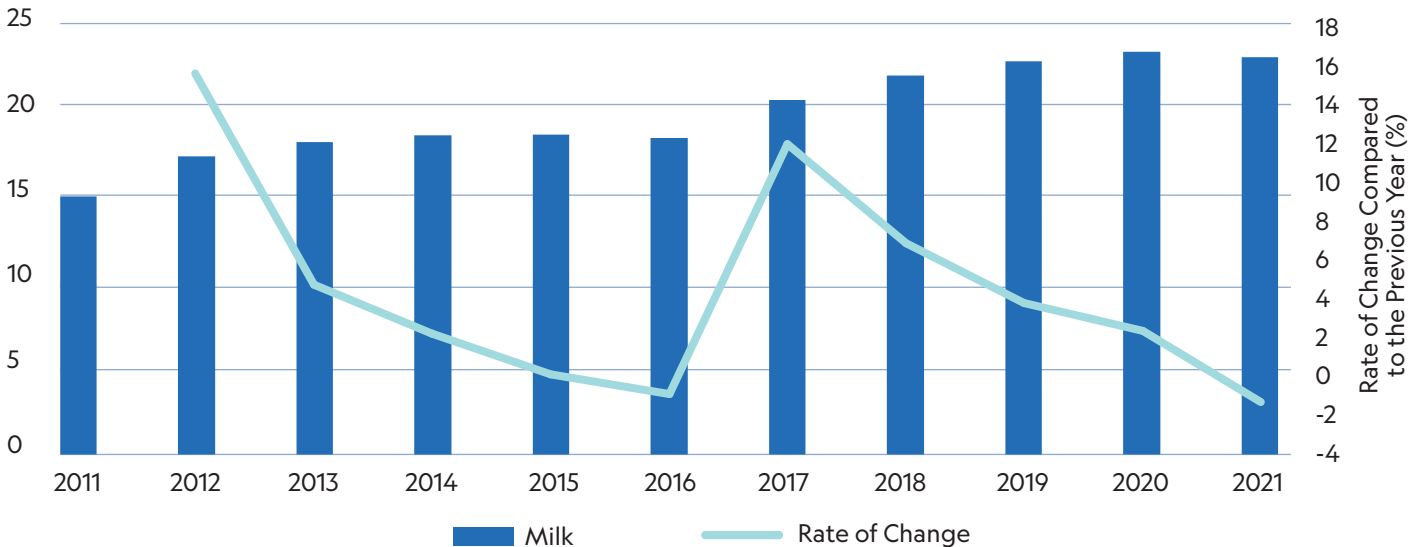


### 2.2.1.3. Dairy Products

Looking at the data of 2021, it is seen that 836,959 tons of cow's milk is collected by commercial dairy enterprises. In January 2022, butter production by commercial dairy enterprises increased by 55.7% and ayran production by 28.6% compared to January of the previous year. However, cow cheese production decreased by 11.5%, yoghurt production by 9.7%, drinking milk production by 8.4% and collected cow milk by 5.7% (TURKSTAT, 2022).

Source: TURKSTAT.

**Chart 38: Milk Production (Million Tons)**

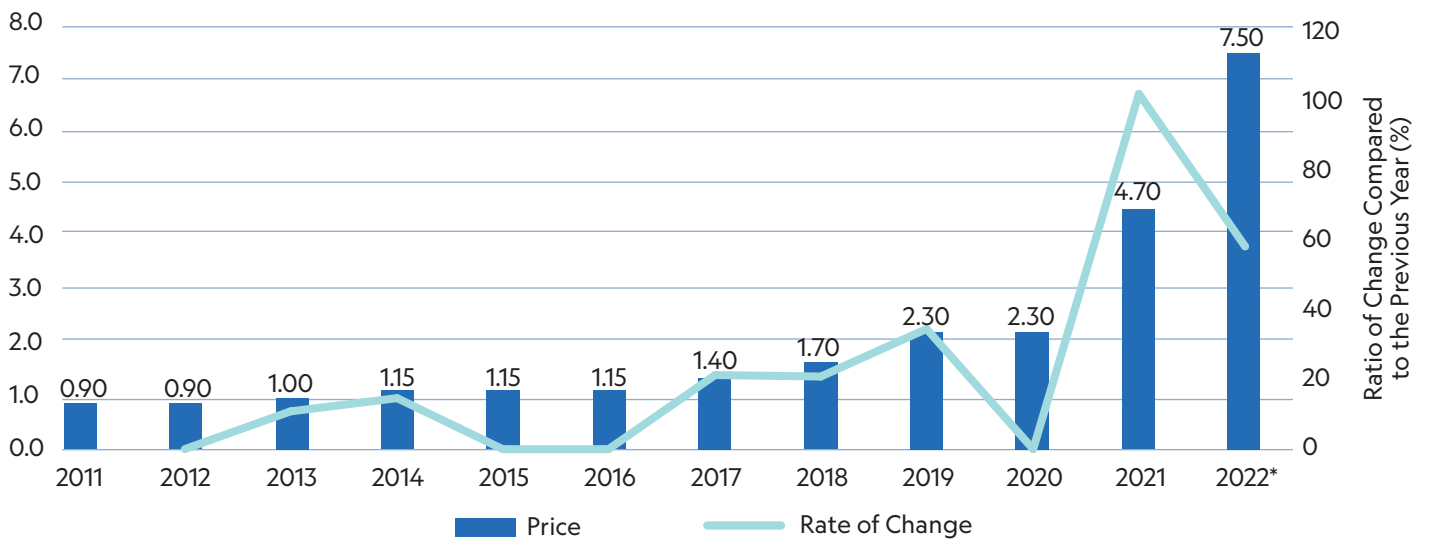


## OUTLOOK OF THE SECTOR IN TÜRKİYE

The current recommended price of the raw milk price, which has shown a noticeable increase since 2019, was 7.5 Turkish Liras per liter in June 2022 (National Dairy Council, 2022).

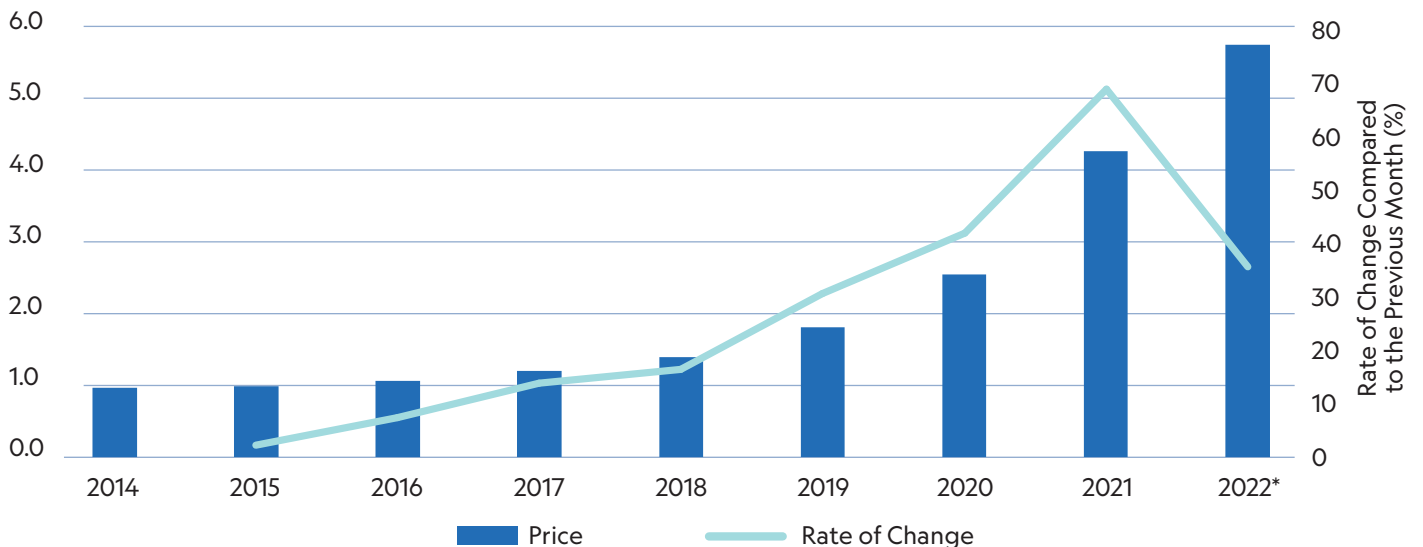
Source: National Dairy Council, 2022.  
\*Data for 2022 are for May.

**Chart 39: Recommended Raw Milk Price (TRY/Liter)**



Source: National Dairy Council, 2022.  
\*Data for 2022 are for May.

**Chart 40: Raw Milk Production Cost (TRY/Liter)**



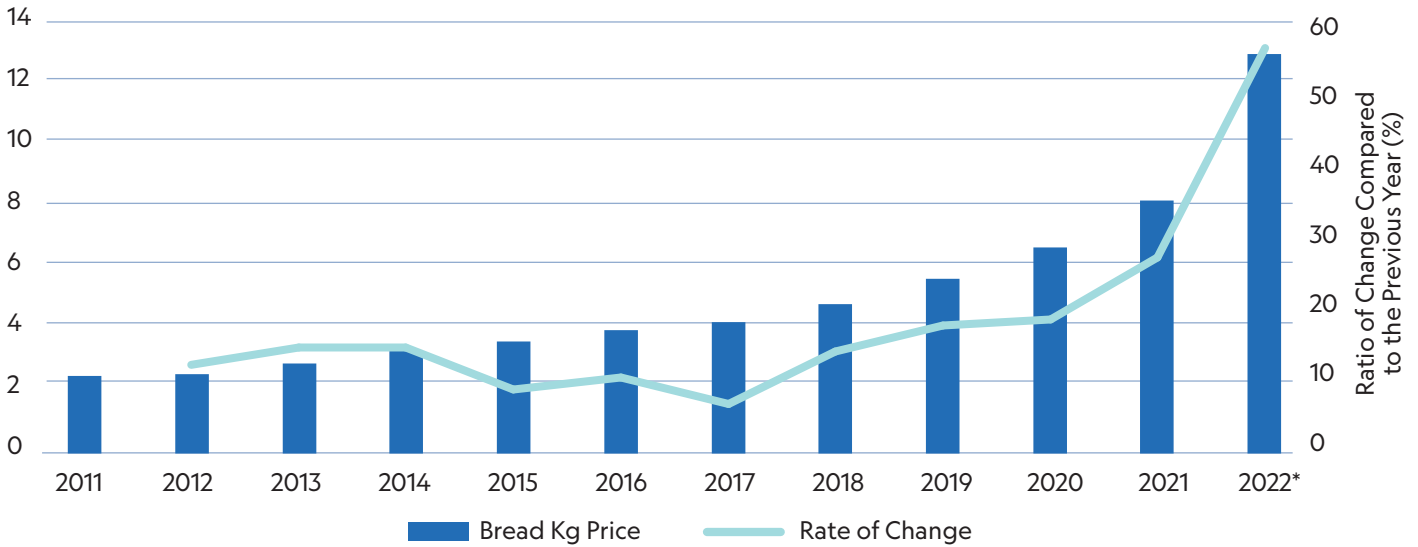
#### 2.2.1.4. Bread

As a result of the increase in flour, fuel, natural gas, electricity and worker costs, bread prices have been increasing cumulatively, especially since the beginning of 2022. Despite the decrease in the weight of bread, the instability in prices continues. As of June 16, 2022, the sales price of 250 grams of bread in Istanbul is 4.5 TL, and the price of 1 sack of flour is 400 TL (TURKSTAT, 2022).

Source: TURKSTAT.

\*The data for 2022 is the average data of the first four months.

**Chart 41: Bread Kilogram Price (TRY/Kg)**

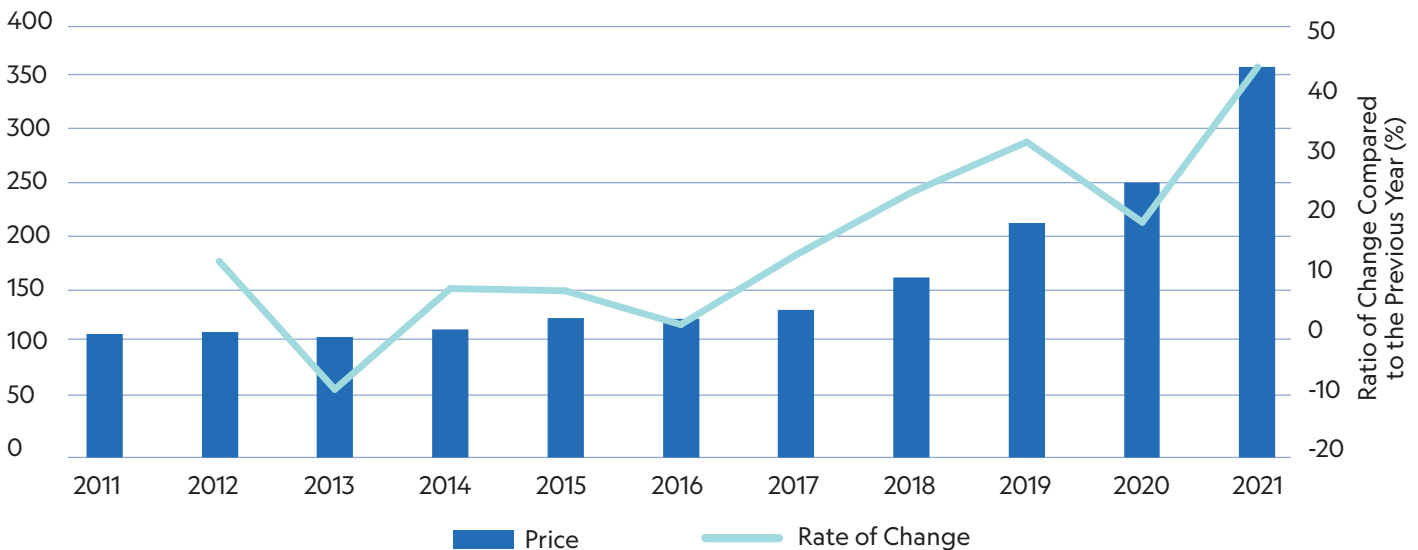


#### 2.2.1.5. Cereals and Pulses

According to the data of 2021, the production value of cereals and other herbal products increased by 34.98% annually. To elaborate, the price of wheat increased by 35.95% annually, while lentils (red) increased by 58.69%, barley (other) by 47.35% and potatoes (other) by 12.37% compared to the previous year (TURKSTAT, 2022).

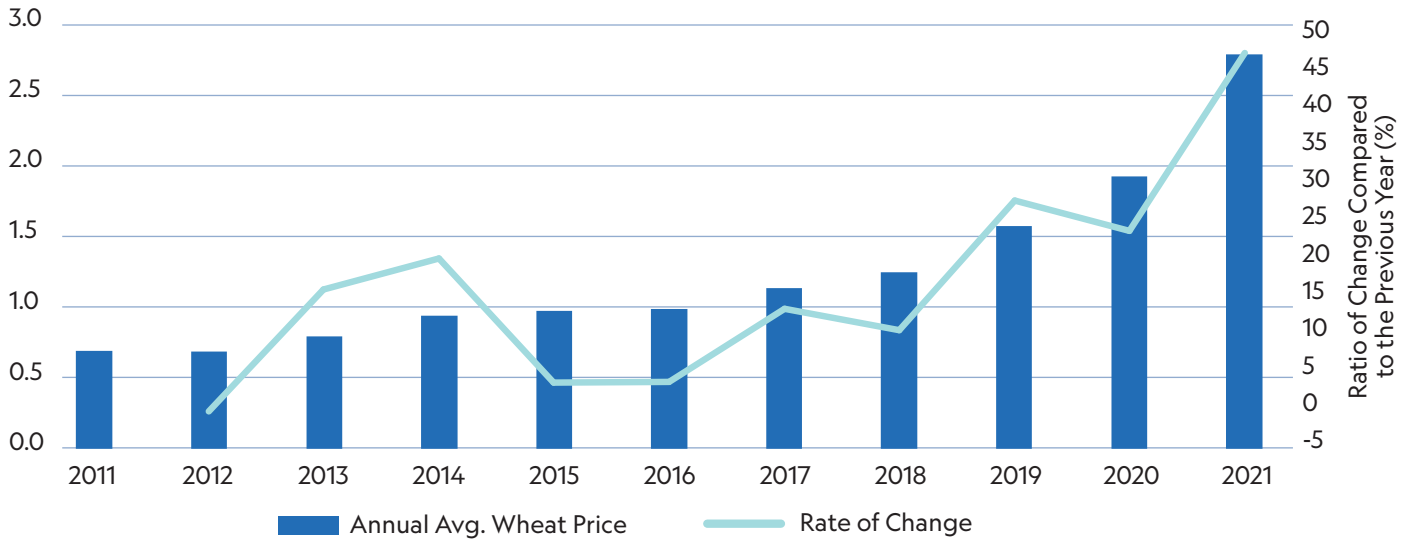
Source: TURKSTAT.

**Chart 42: Cereal and Other Herbal Product Price (TRY/Kg)**



Source: Polatlı Commodity Exchange. 2021.

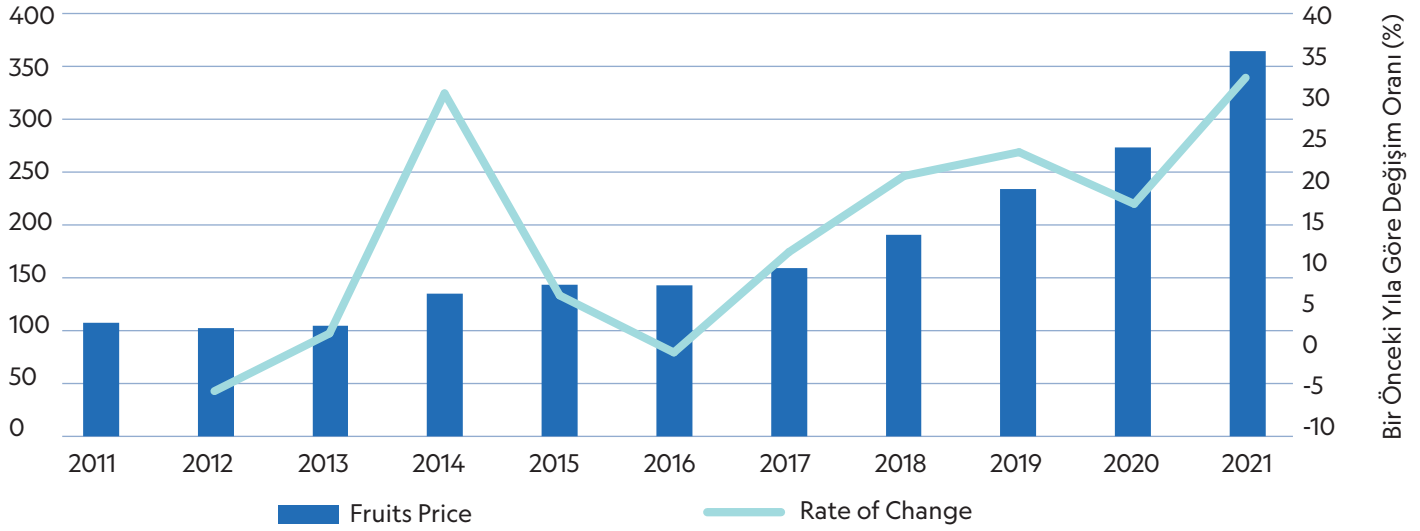
**Chart 43: Annual Average Wheat Price Index**



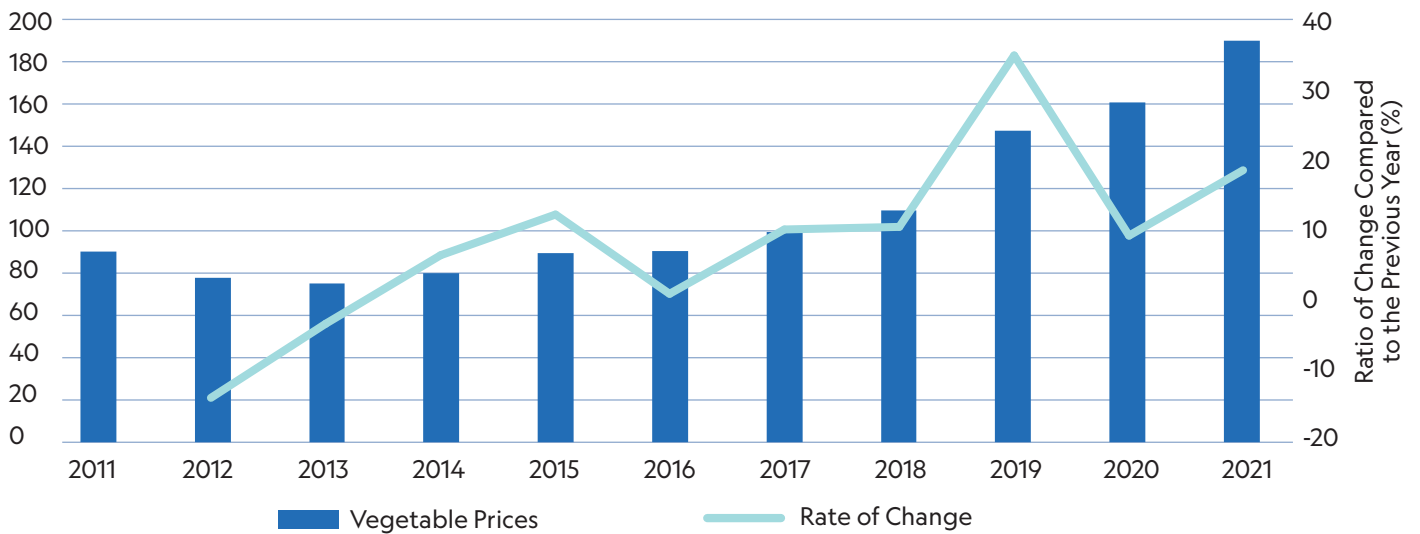
### 2.2.1.6. Fruit and Vegetables

According to the data of 2021, the production value of fruits, beverage and spice plants increased by 22.26% compared to the previous year and reached 113.16 Billion TL, and the production value of vegetables increased by 7.44% from the previous year to 59.40 billion TL (TURKSTAT, 2022).

The price of olives (table) among fruits, beverage and spice plants increased by 31.85%, orange (Washington) with 34.99%, grape (table seed) with 21.69% and apple (Starking) with 19.32%, respectively from the previous year. On the other hand, the only product that showed a decrease compared to the previous year was lemon with 31.81% (TURKSTAT, 2022).

**Grafik 44: Fruit Prices (TRY/Kg)**

Among the vegetables, the price of tomato (table) increased by 14,78%, cucumber (table) by 30.22%, eggplant by 22.15%, and green pepper (long) by 13,03% compared to the previous year. On the other hand, the only product that showed a decrease compared to the previous year was onion (dry) with 24.86% (TURKSTAT, 2022).

**Chart 45: Vegetable Prices (TRY/Kg)**

It should be expected that the rate of increase in vegetable prices will continue to increase in the short and medium term due to increased demand, production difficulties and rising input costs.



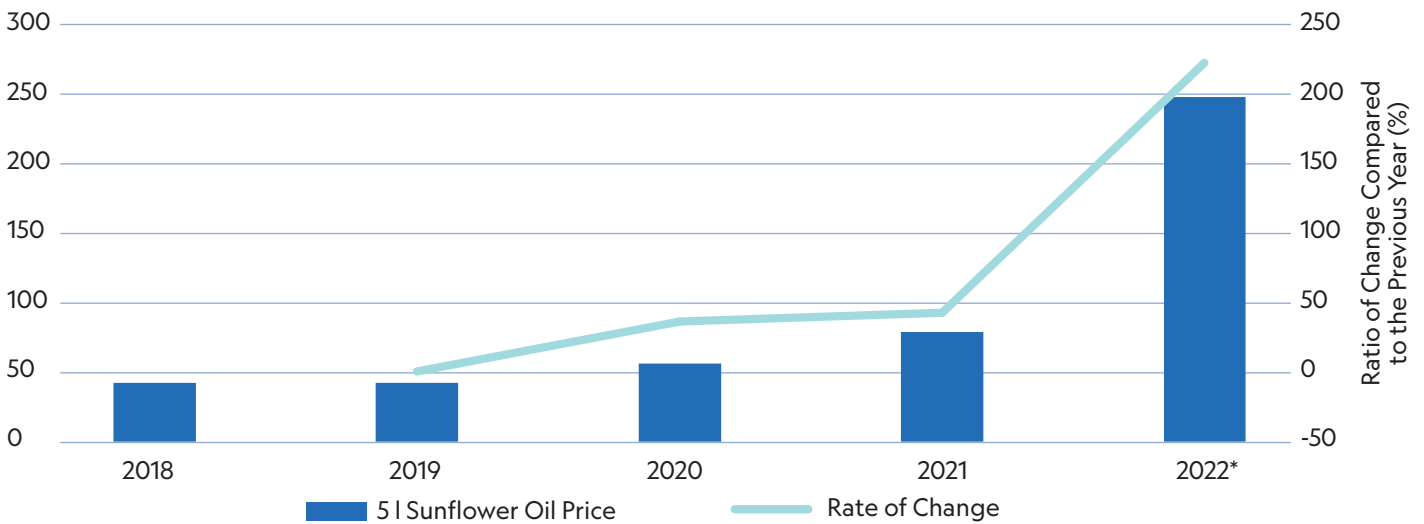
## OUTLOOK OF THE SECTOR IN TÜRKİYE

### 2.2.1.7. Oil

A very strong increase is observed in sunflower oil prices due to the Ukraine-Russia crisis and the decrease in sunflower agricultural lands in Türkiye. Especially recently, the atmosphere of confusion in retail sales has an effect on unconscious consumers to stock up. This situation deepens the instability in prices and makes it difficult to access sunflower oil.

Source: Blog Artı, 2022  
\*Data for 2022 is estimate.

Chart 46: Sunflower Oil (5 L) Price (TRY)

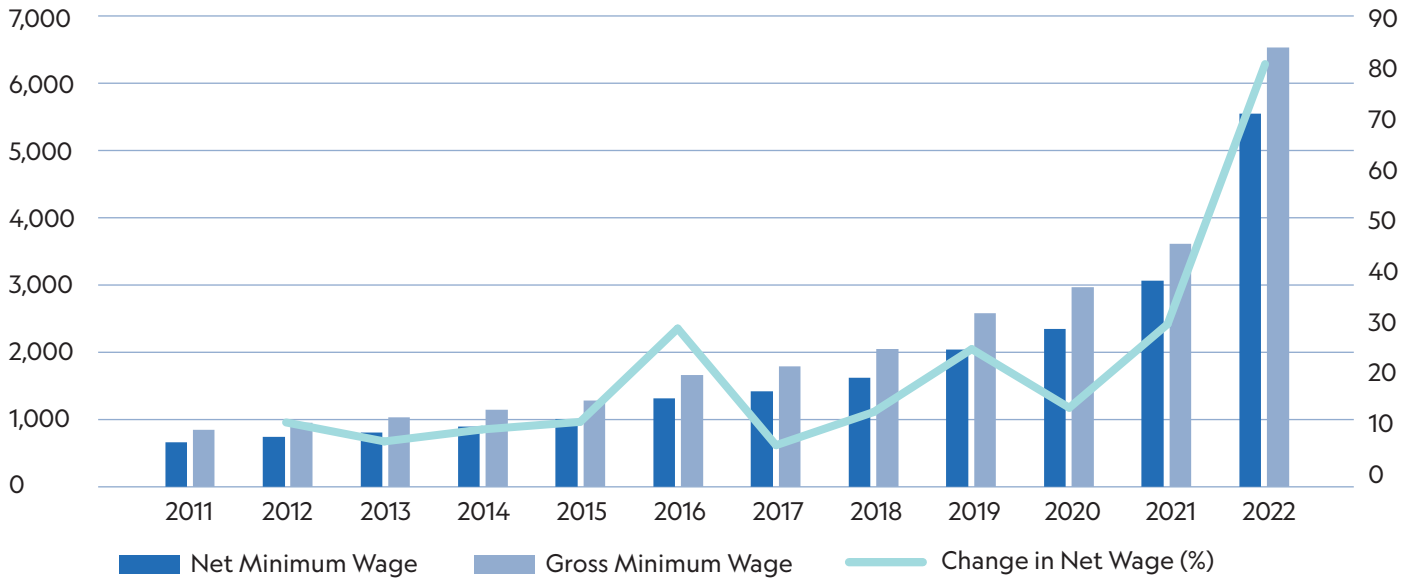


Given the fact that the Russia-Ukraine War affected not only grain supply but also sunflower shipments, it is seen that the war was effective in the rapid price increase in Chart 45. Like grain, the price trend of this product has become sensitive to geopolitical developments in the short-medium term.

### 2.2.2. Industrial Food Sector Labor Item

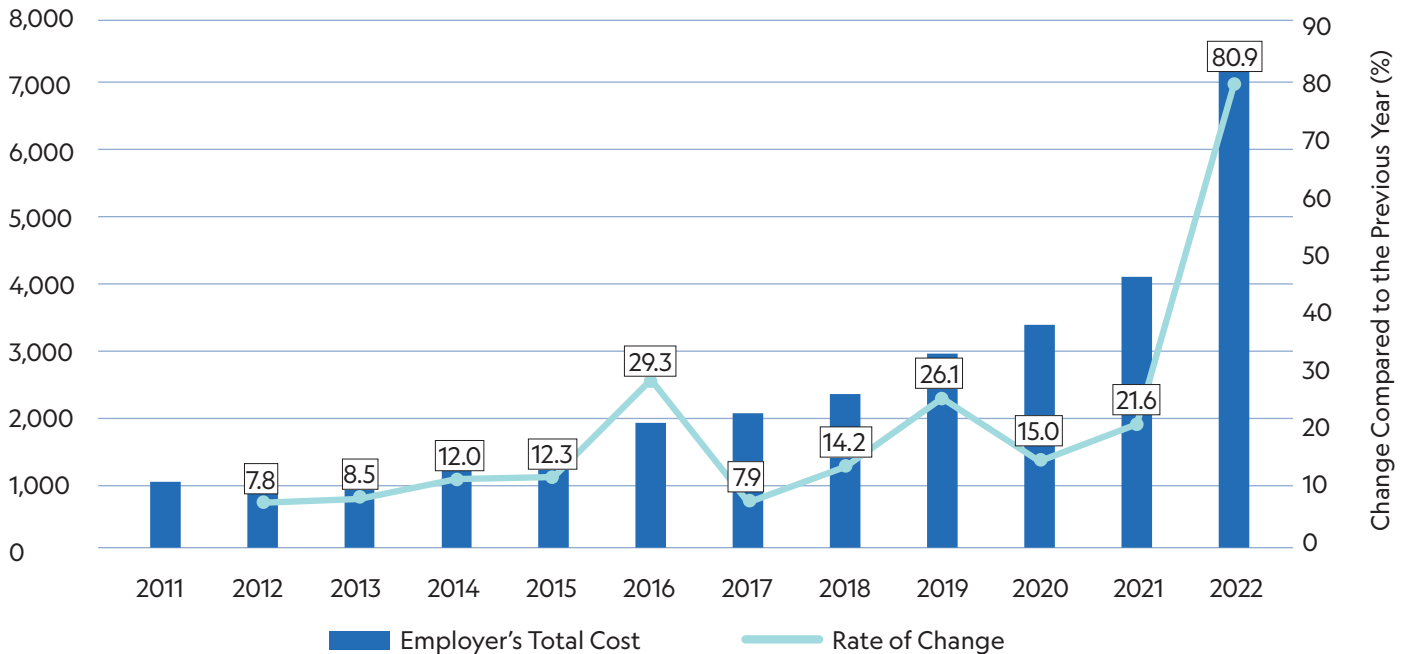
The great depreciation of the Turkish lira against other currencies significantly reduced the purchasing power of wage earning people. In recent years, in order to prevent this situation, the minimum wage has been increased at various levels with the last one being 50%. The increase in the minimum wage increases the costs, especially in the private sector, and causes layoffs and unemployment. In addition to all these, the increase in costs is also reflected in prices, and thus inflation enters a vicious circle. As of August 2022, the ratio of increase in the minimum wage should be expected to continue as a result of the exchange rate and inflation risks that emerged as a result of the interest rate cuts that the Central Bank of the Republic of Türkiye had suspended for seven months.

On the other hand, the increase in the number of informal workers creates an irregularity in income tax. An increase in the minimum wage leads to an increase in other wages. In this way, the consumption tendency rises even more and it shifts back to the axis of increase in prices. In the upcoming period, it is possible to see interim increases to the minimum wage, as occurred in July 2022.

**Chart 47: Minimum Net/Gross Wage (TRY)**

As can be seen in Chart 46, as a result of rising inflation, the minimum wage increased significantly and the net minimum wage rose to 5,500 TL as of July 2022.

Similarly, the employer's cost of minimum wage increased rapidly and reached 7,600.43 TL. This increase is expected to continue in the upcoming period.

**Chart 48: Minimum Wage Costs to the Employer (TRY)**



## OUTLOOK OF THE SECTOR IN TÜRKİYE

### 2.2.3. Industrial Food Sector Energy and Logistics Items

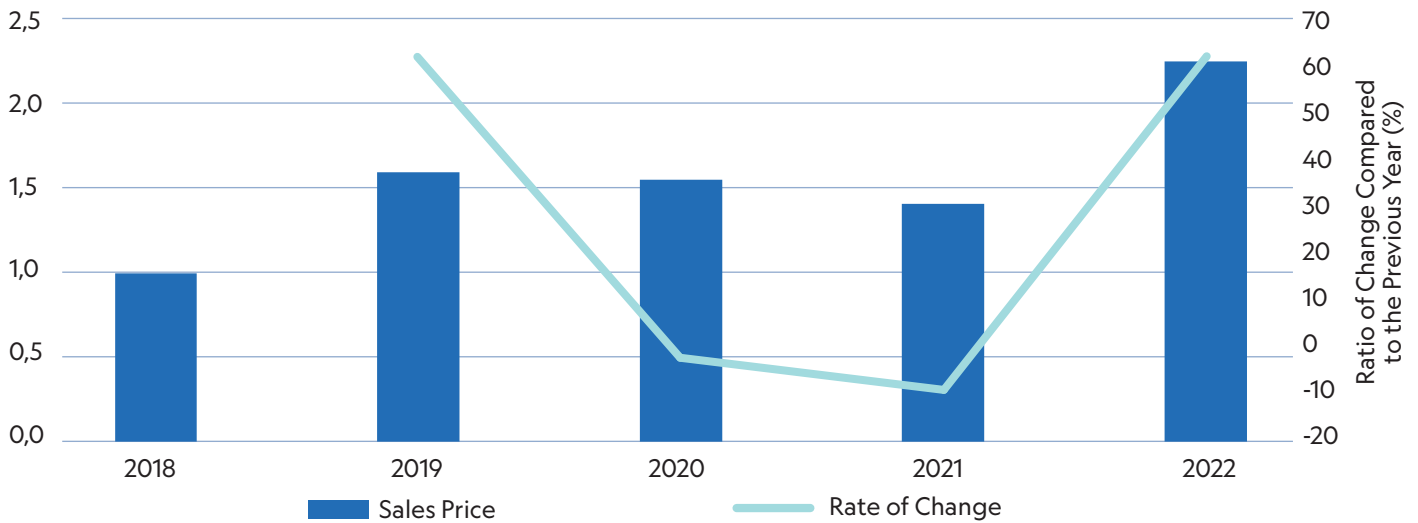
#### 2.2.3.1. Natural Gas

As for the energy prices, which is one of the important items affecting the cost, it is seen that the natural gas sales price in January 2022 is 2.19 TL/Sm<sup>3</sup>. (UDAŞ, 2022)

Source: UDAŞ, 2022.

\*Natural Gas sales prices are the price calculated for 0-100.000 Sm<sup>3</sup> in January of each year.

**Chart 49: Natural Gas Sales Price (TRY/Sm<sup>3</sup>)**



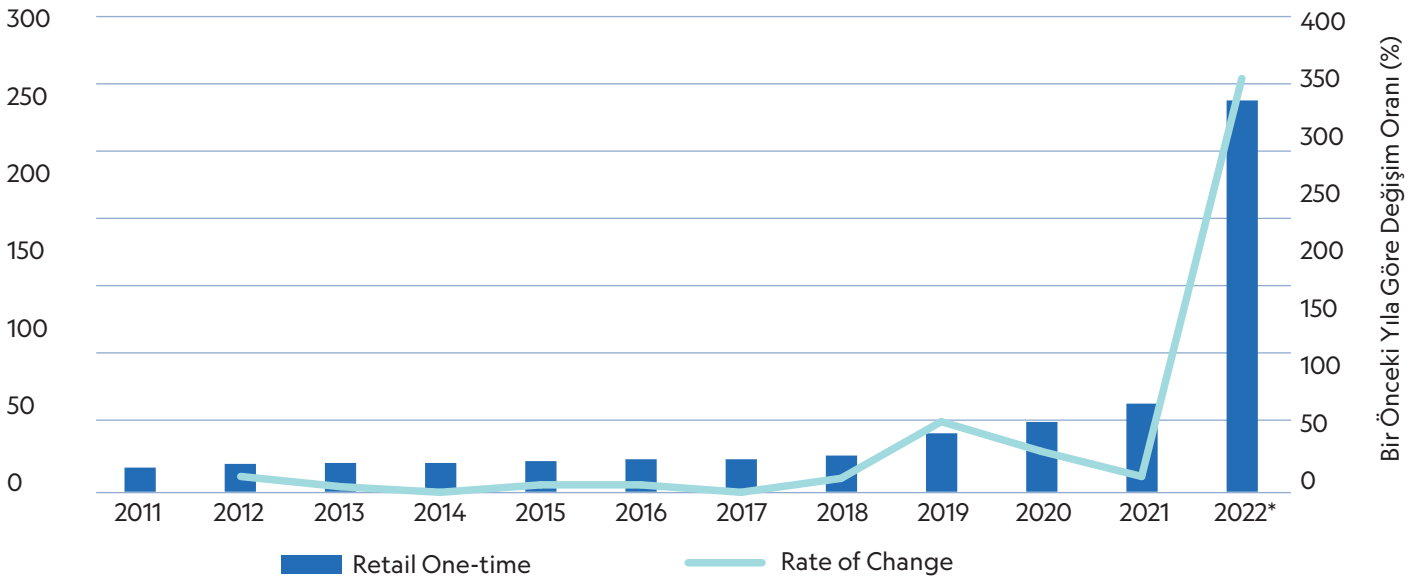
In addition to the increase in global natural gas prices, the unit price of natural gas increased significantly after the rapid depreciation of the Turkish Lira against the dollar.

### 2.2.3.2. Electricity

The increase in Natural Gas prices both in domestic and global markets and the rapid depreciation of the Turkish Lira had a very negative impact on electricity prices. As a result, as of July 2022, the consumer tariff price increased by 5 times per KWh, approaching from 50 kuruş to 250 kuruş.

Source: Turkish Energy Market Regulatory Authority, 2022.  
\*2022 data belongs to 01.07.2022.

**Chart 50: One-Time Retail Electricity Tariff (Kr/Kwh)**



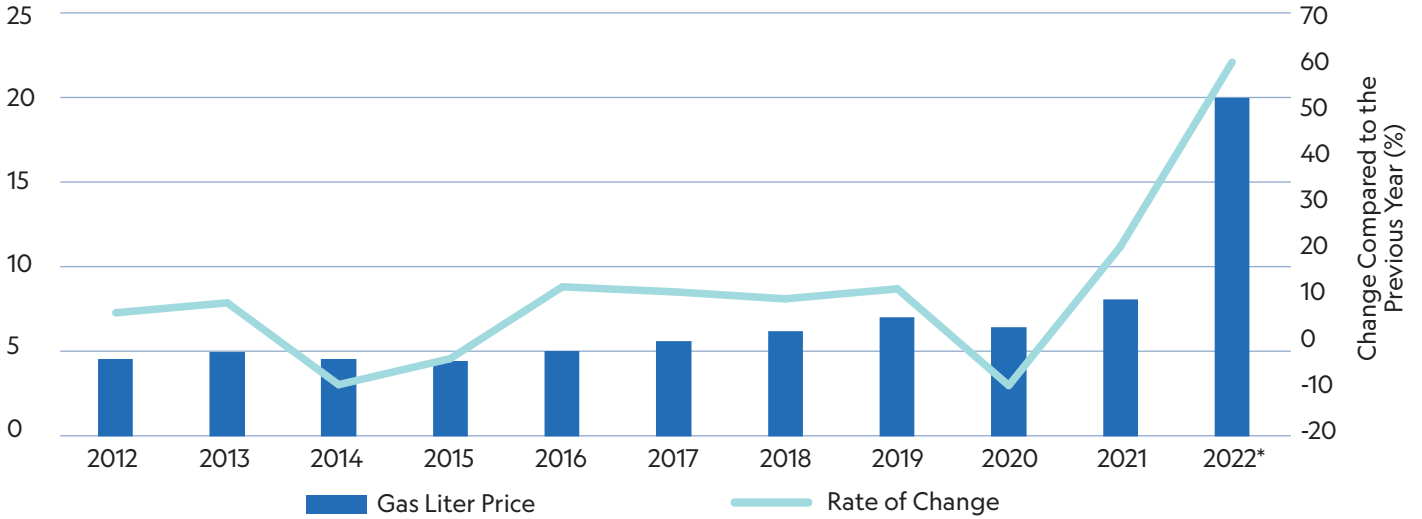
As presented in Chart 49, electricity prices also increased significantly, similar to natural gas prices. If the depreciation of the Turkish Lira continues, the rapid increase in electricity and natural gas prices should be expected to continue.

### 2.2.3.3. Transport

As a result of the oil embargo applied to Russia, the uncertainty regarding the oil stocks of developed countries and the questions about production, Brent crude oil prices showed a significant increase after the pandemic. Although the recession concerns and the expected decrease in oil demand in the market cause a relief in prices, the ongoing depreciation of the Turkish Lira limits the relief in domestic oil prices. It is expected that this situation will continue in the coming period. This significant increase in domestic gas prices is shown in Chart 51.

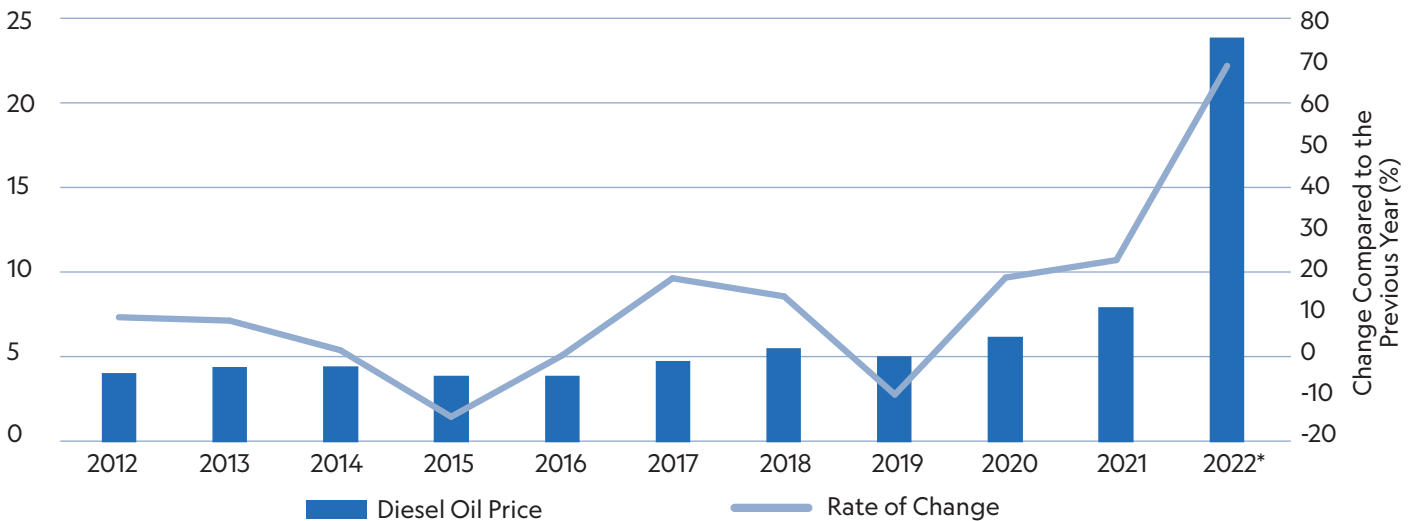
Source: Opet, 2022.  
\*2022 data belongs to 30.07.2022.

**Chart 51: Gas Liter Price (TRY)**



Source: Opet, 2022.  
\*2022 data belongs to 30.07.2022.

**Chart 52: Diesel Oil Liter Price (TRY)**



Similarly, the rapid increase in diesel oil prices is presented in Chart 51. It is seen that the diesel oil price, which was 7 Turkish Liras in 2021, reached 30 Liras with a very strong increase, and then stabilized around 23 Liras with the downward trend in Brent crude oil prices and the relatively flat course of the exchange rate.

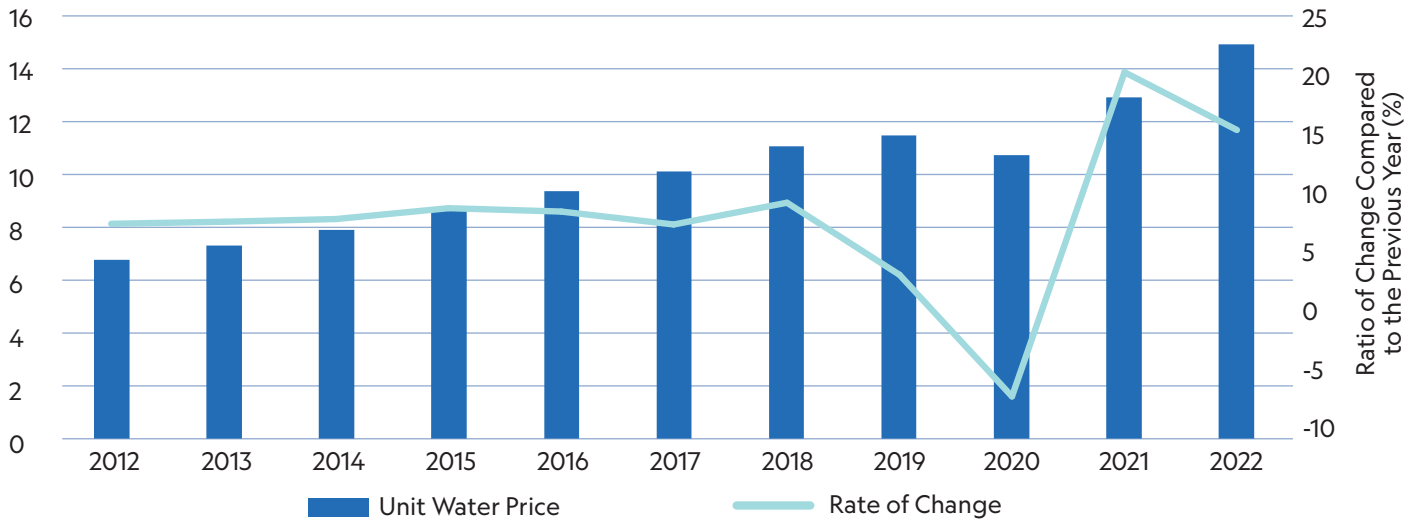
## 2.2.4. Industrial Food Sector Overhead Items

### 2.2.4.1. Water

As of April 2022, the Unit Water Price is 14.95 TL (İstanbul Su ve Kanalizasyon İdaresi, 2022). Since the exchange rate increase in water prices and the resulting increased input costs are more limited than electricity, natural gas and gasoline, the price increase followed a lower course. Despite this, as of April 2022, there is an increase of approximately 40% in the Workplace Unit Water Price compared to 2020.

Source: Istanbul Water and Sewerage Administration, 2022.

**Chart 53: Workplace Unit Water Price (TRY)**



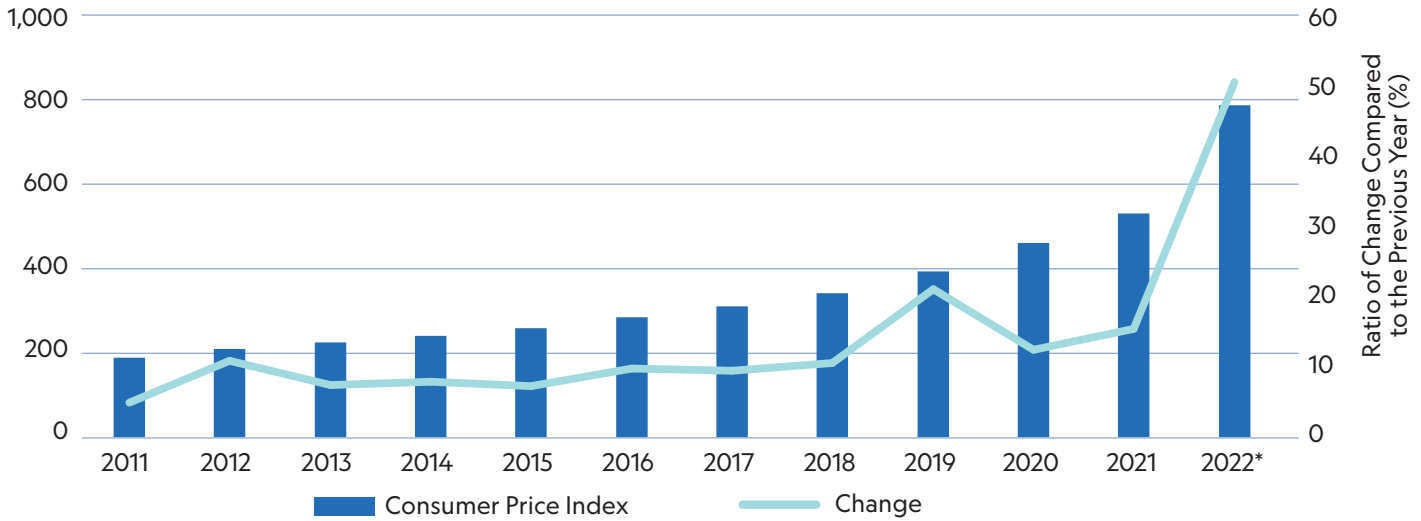
### 2.2.4.2. Other

The annual inflation rate, which is around 10% every year in Türkiye, entered an upward trend in recent years, but by July 2022, the rate of change has reached almost 80% compared to the same month of the previous year. In this case, the current inflation rate creates serious problems in the industrial food sector, where contract periods are 3 to 6 months, and is becoming challenging for companies.

In July 2022, the Consumer Price Index (CPI) increased by 2.37% compared to the previous month, by 79.60% compared to the same month of the previous year and by 49.65% according to the twelve-month averages. (TURKSTAT, 2022).

Source: TURKSTAT.  
\*Based on the first 7 months of 2022.

**Chart 54: Consumer Price Index**

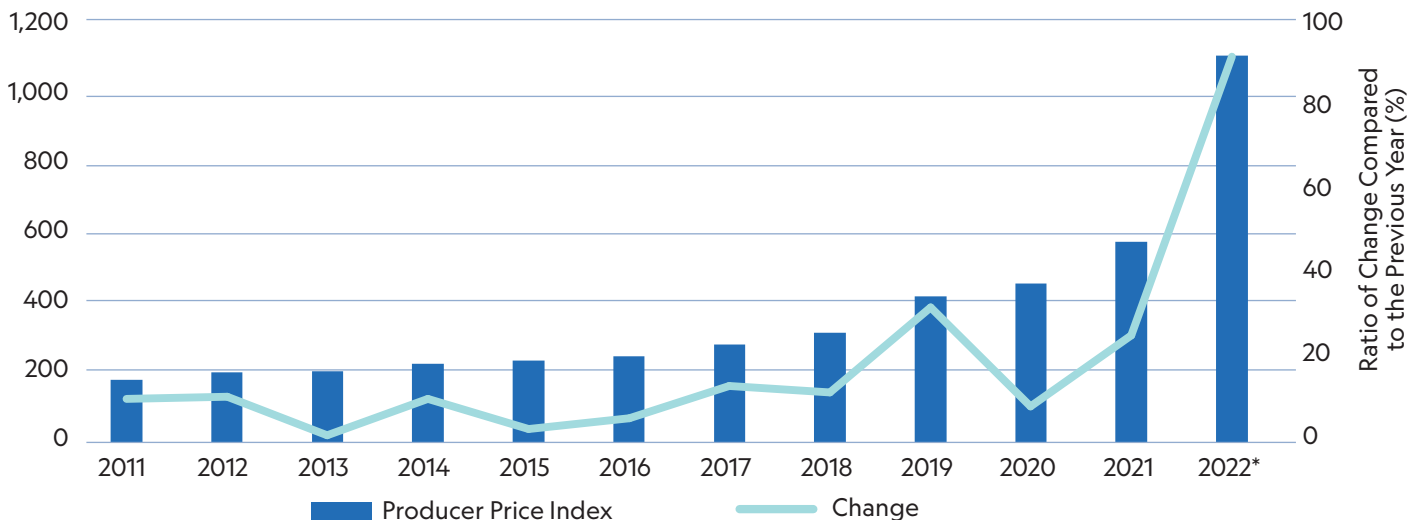


The only sector that decreased on an annual basis as of July was the transportation group with a rate of -0.85%. The main groups with an increase lower than the same month of the previous year were education with 0.76%, communication with 1.78% and clothing and shoes with 1.80%. On the other hand, the main groups with the highest increase compared to the same month of the previous year were health with 6.98%, alcoholic beverages and tobacco with 6.85%, entertainment and culture with 4.50% (TURKSTAT, 2022).

Another issue that challenges industrial food companies is the high increases in the producer price index. High increases in PPI increase the costs of companies and decrease their profitability. The share of food as raw material in the cost items of the companies is increasing proportionally (TURKSTAT, 2022).

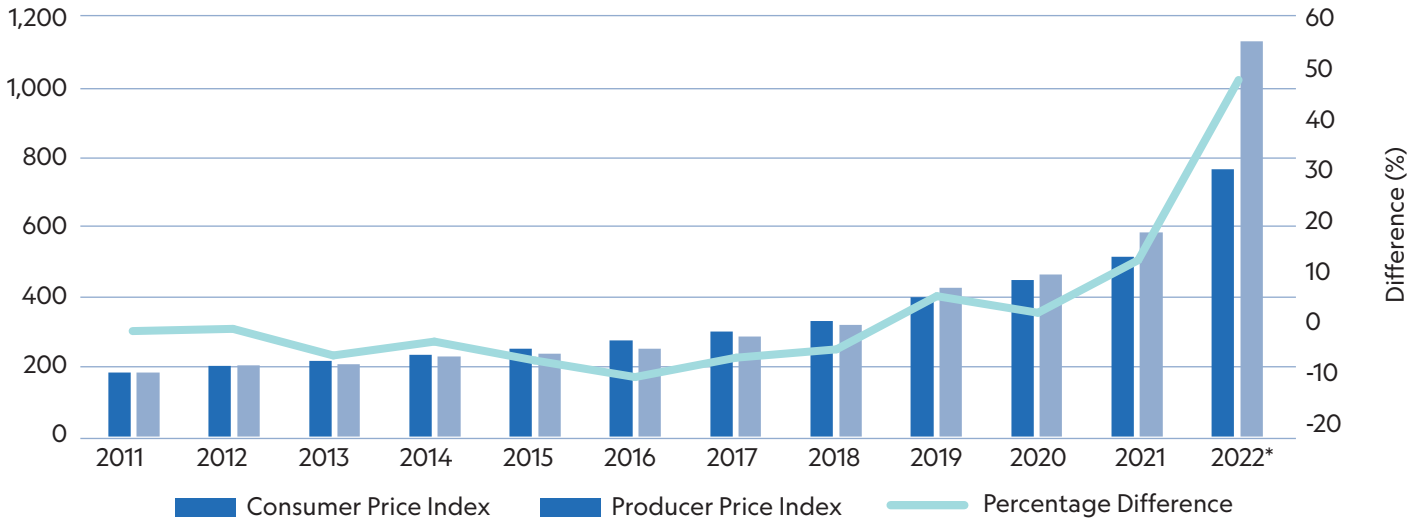
Source: TURKSTAT.  
\*Based on the first 7 months of 2022.

**Chart 55: Producer Price Index**



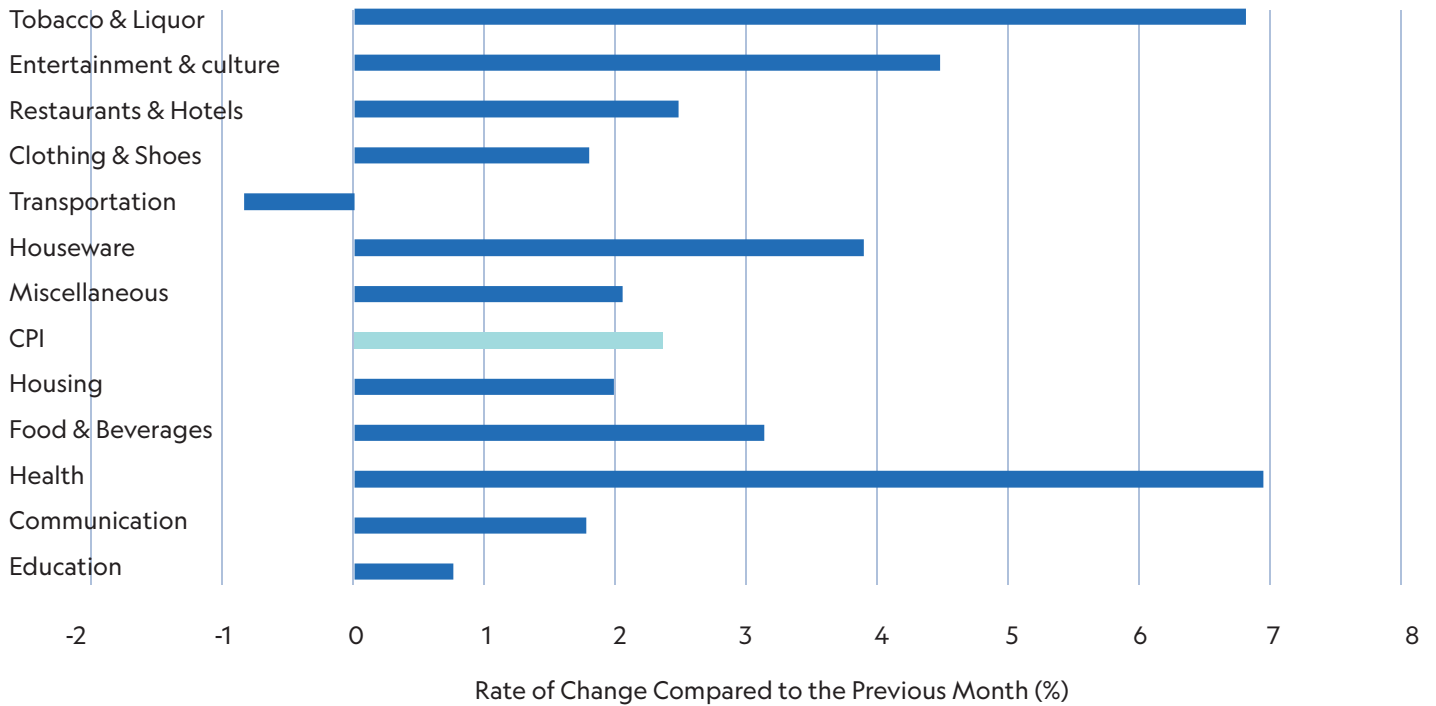
Source: TURKSTAT.  
\*Based on the first 7 months of 2022.

**Chart 56: Change in Consumer and Producer Price Index**



Source: TURKSTAT.

**Chart 57: TURKSTAT Main Expenditure Groups Inflation Rates**



Looking at the main expenditure groups of TURKSTAT, the highest increase in July 2022 was realized in the health group with 6.98% (TURKSTAT, 2022).





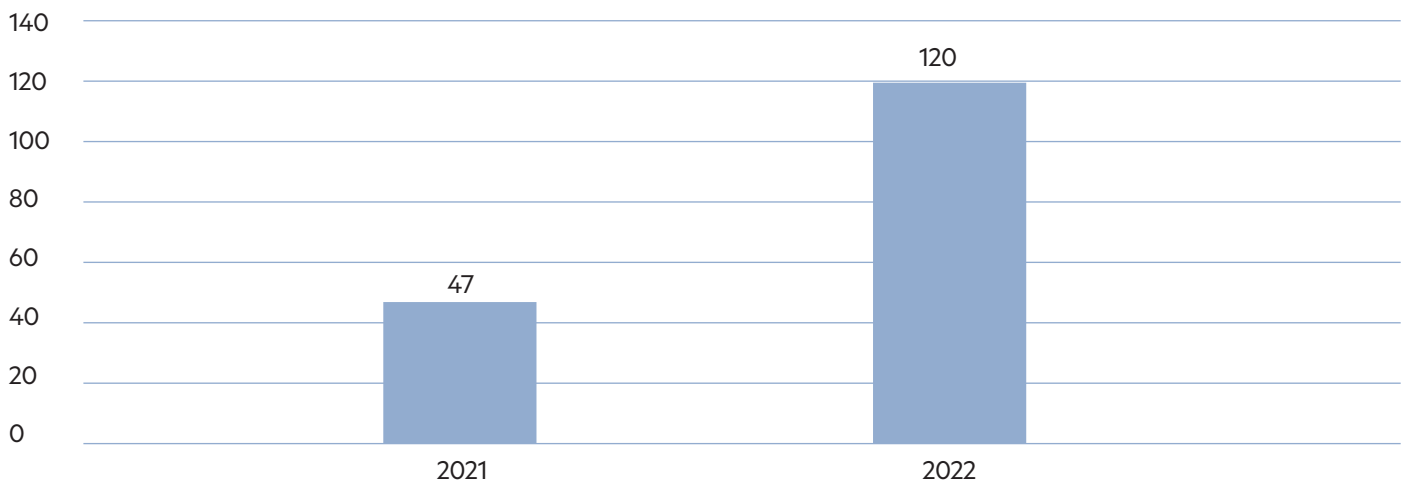
### 2.2.5. Industrial Food Sector Investment Items

#### 2.2.5.1. Kitchen Equipment

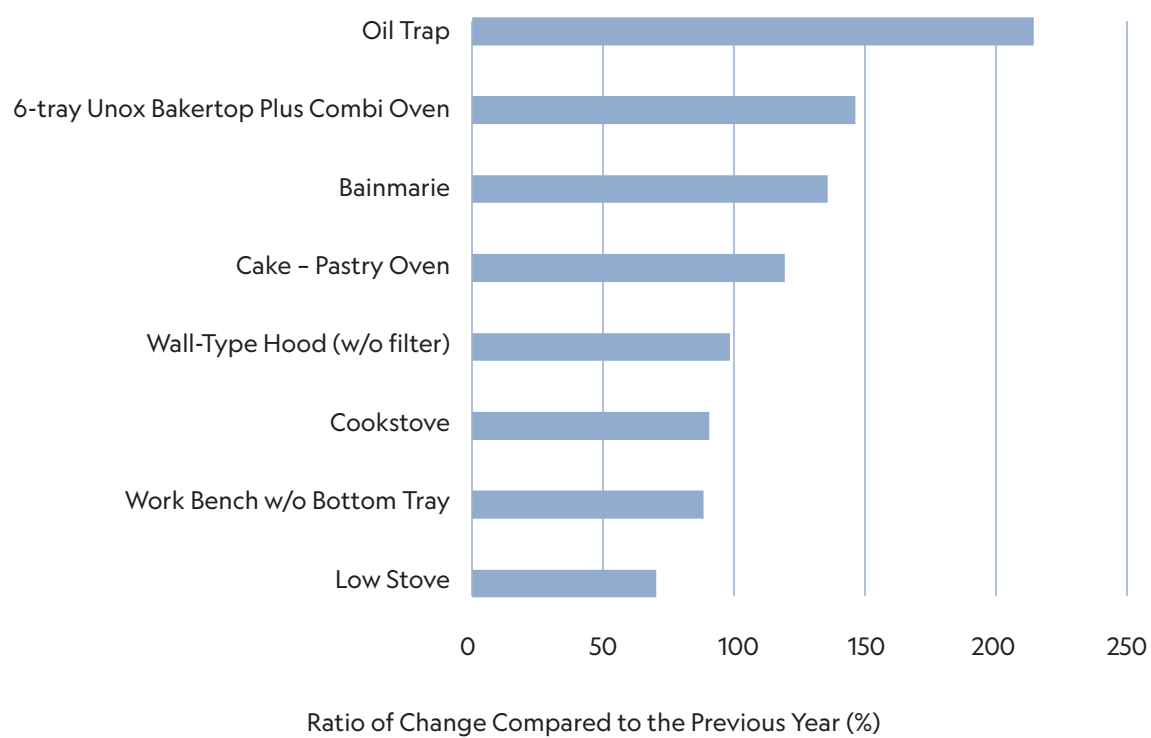
As in all other areas, a high inflation is observed in Industrial Kitchen Equipment. In this context, the inflation rate increased to 120% in 2022 from 47% in 2021. Since this item is an extremely important cost item, such an increase creates significant negativity (Metro Mutfak, 2022) (Cafemarkt, 2022).

Source: Consulta Research.

Chart 58: Industrial Kitchen Equipment Inflation Rate (%)



Many kitchen equipment prices have increased by 100% or more. These unpredictable price increases can be expected to continue in the short and medium term.

**Chart 59: 2022 Industrial Kitchen Equipment Price Change**



### 2.3. Factors Affecting the Sector

Meal allowances (also referred to as food allowances or meal stipends) are the amount of money paid by employers to meet the nutritional value that the worker needs during their time at work. Meal allowances, which most employers pay to keep their workers productive, are not required under the Labor Law. The payment or non-payment of meal allowances in a workplace is determined by the labor contract.

As the minimum wage for 2022 has been set, the meal exception amount has been updated. With the Income Tax General Communiqué/Serial No: 317 published in the Official Gazette, the food and road allowance exemption amounts on the income tax side are as follows:

With the updating of the minimum wage every year, many amounts are also rearranged. One of them is meal allowances. Food allowance for June 2022 has become 34 TL with 11 TL increase from the previous year. Thus, the meal exemption increased from 34 TL in June, excluding tax, to 36.72 TL including VAT. Effective as of July 1, 2022, the meal exemption, excluding tax, has increased by 50% to 51 TL. There are three types of meal allowance that can be applied in an enterprise. These are;

- Cash allowance,
- Cafeteria service,
- Meal card or meal ticket.

#### 2.3.1. Meal Allowance in Cash

If the employer prefers to pay the monthly meal allowance to the employee in cash, this allowance is subject to income tax. According to SSI, 6% of the daily minimum wage is exempted from the base of earnings (gross wage) in the amount of 6% of the daily minimum

wage. In other words, SSI deduction is not made from the determined meal allowance.

#### 2.3.2. Cafeteria Support

Cafeteria support can be within the workplace or in a place outside the workplace. If the employer provides such support, it is not monetary, but in-kind support. Therefore, SSI premium is not deducted for this practice. This support is also exempt from income tax, and is accounted for as an expense of the employer without being reflected in the employee payroll. However, while calculating the notice and severance pay, the meal allowance should be added to the employee's vested wage.

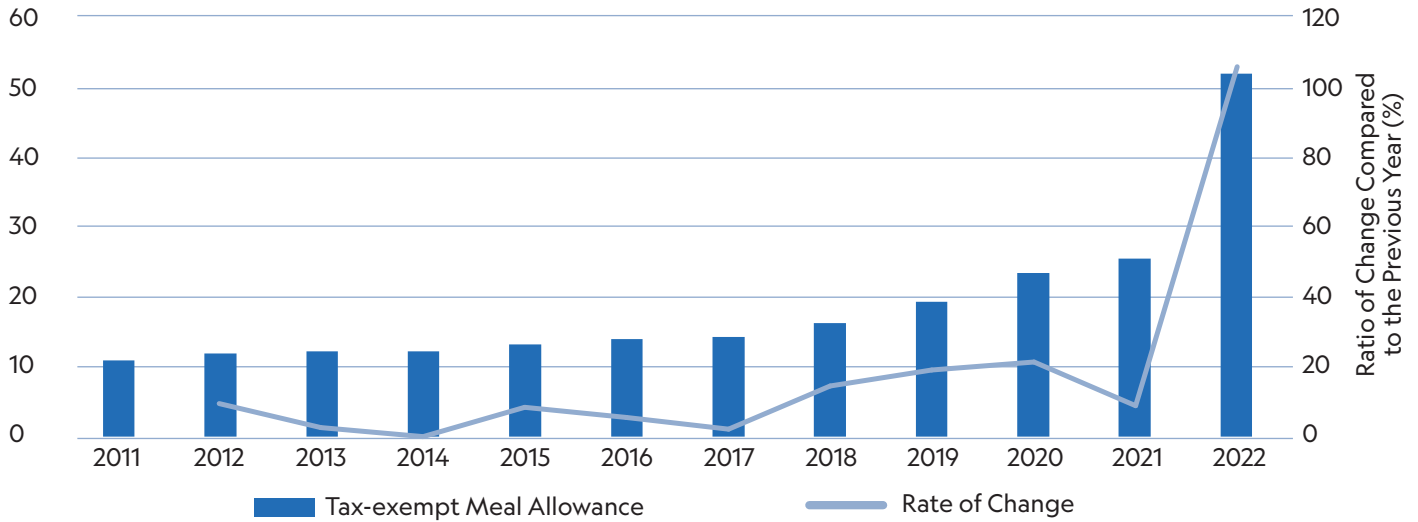
#### 2.3.3. Meal Allowance with Meal Card or Meal Ticket

Meal card or ticket is an 'allowance in kind' as it is paid to the worker for use with the help of an intermediary object, not in cash. In this case, the amount does not matter. SSI premium of the allowance amount is not calculated and this amount is not included in the gross wage. As income tax, it is evaluated over the current exemption amount of that year and exempted from tax. No income tax is payable on this amount, which is 51 TL in 2022. However, if the employer pays a meal allowance of more than 51 TL, an income tax is payable for the portion exceeding this amount (Küçükcan, 2021). Changes in the cost of meals over the years are shown in the chart below (MuhasebeTR, 2022)

Source: Küçükcan, 2021

**Table 24: Ways of Meeting Employee's Meal Needs**

Payment Type	Payment Terms	Exception	Amount
Cash meal allowance	Food allowance	Daily SSI exception	10.01 TL
Cafeteria support	In-kind support	SSI exemption is not reflected in the payroll	Exempt
Meal card or ticket	Card/ticket (in-kind support)	Income tax exemption. SSI exemption. not reflected in the payroll	51 TL (55.08 TL including VAT)

**Chart 60: Tax-Exempt Meal Allowance (TRY)**

The meal card given to private or public employees by their institutions to cover some of their monthly meal expenses is called ticket or voucher. Edenred, Multinet, Sodexo, SetCard, Yemekmatik Card, MetropolCard, Paye Card are among the most used ticket cards in Türkiye, respectively. Tickets hold approximately 12% market share of the food sector in Türkiye.

Tickets provide employers with many advantages, especially privileges such as tax deductions. The fact that these cards can be used in the markets as well as in the food sector and that it is preferred by employees in terms of offering the consumer the freedom to choose the food they want and transferring the unused balance to the next month pose a potential threat to the future of the industrial food sector. With these advantages, it can be said that the biggest competitor of the industrial food sector is meal tickets or cards. In terms of not being valid everywhere and going to another location to meet the need for food, tickets lag behind table d'hôte industrial food service.

However, considering that the rate of meal card use in the European Union is around 30%, it is thought that there is a lot of potential to increase the use of tickets in Türkiye.

According to the 'Meal Card Penetration and Market Share' research conducted by Edenred with the

research company Ipsos, the rate of meal card usage in Türkiye was found to be 12.51%. Within the scope of this research, data were collected by interviewing 2,500 small-medium-large scale companies from 12 regions, mainly in Istanbul, Ankara and Izmir, in September 2019. According to these data, Edenred maintains its leadership in the ticket card market by serving more than 25 thousand corporate customers and more than 1.5 million employees in Türkiye. According to the other results obtained from the research, the rate of those who pay their lunch in cash in small businesses with 1 to 9 employees is 45.7%, while the rate of meal card usage is 44% in companies with 500 or more employees.

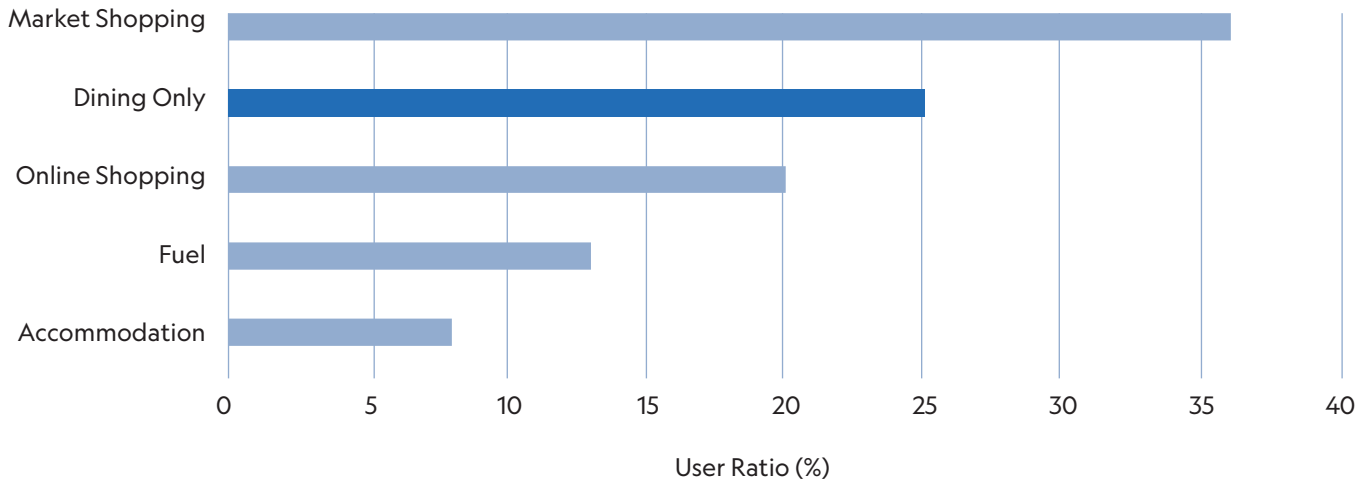
As a result of the researches, it is seen that the employees use their meal cards not only at the workplace, but also in other shopping where the meal card is valid, such as grocery shopping. As a result of the survey conducted with the participation of 400 people in 2021, only 25% of the participants stated that they used meal card only for food. The places where the meal meal card is used other than for food and how many of the participants prefer other uses are given in the table below (Marketing Türkiye, 2021).



## OUTLOOK OF THE SECTOR IN TÜRKİYE

Source: Marketing Türkiye, 2021.

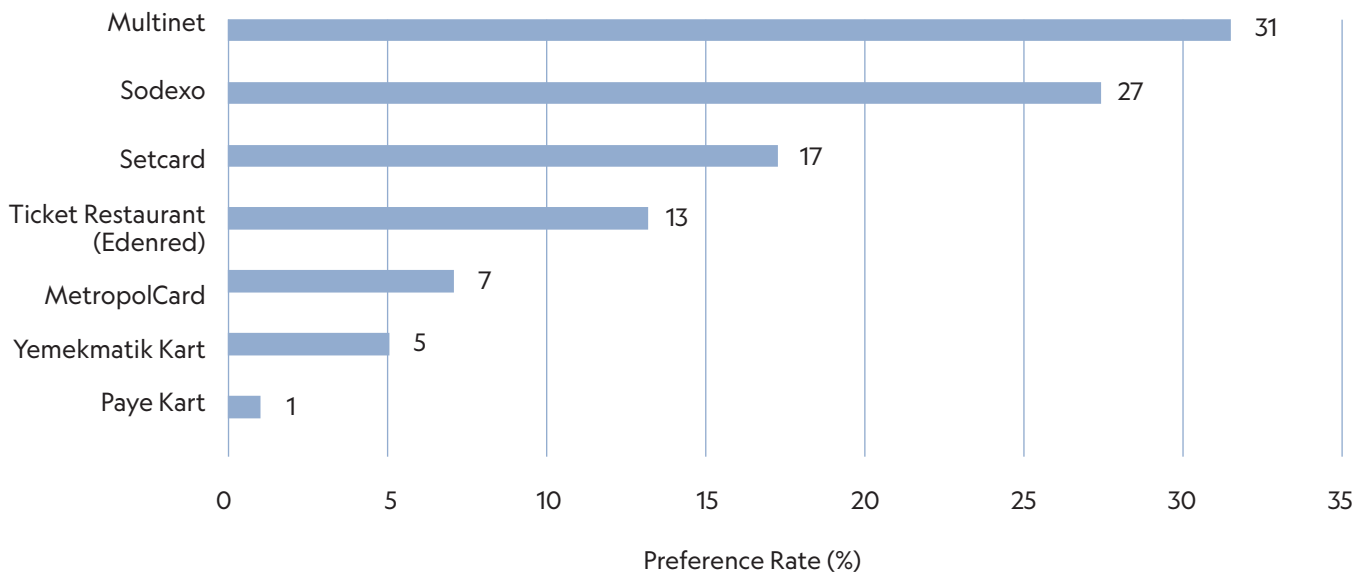
**Chart 61: Meal Card Usage Area**



While Multinet is the company with the highest satisfaction ratio in the use of meal cards with various forms, the distribution of the companies preferred by the users is as follows (Marketing Türkiye, 2021).

Source: Marketing Türkiye, 2021.

**Chart 62: Meal Card Usage Preference**



## 2.4. Market Size

The sector sizes of the Turkish industrial food sector realized in the period from 2015 to 2020 are shown in Table 25 (TURKSTAT, 2022).

Source: TURKSTAT.

c\* : PPursuant to the article on confidential data of the Turkish Statistical Law No. 5429 , no information is given as the number of enterprises is less than three or one or two enterprises are in a dominant position even though the number of enterprises is three or more, and in order to prevent the information belonging to the hidden enterprises from being obtained as a result of arithmetic operations. The hidden sector data are shown in the sums of the sector's three- or dual-level sector codes and Türkiye's totals

(1)\*\* : Confidential Data

**Table 25: Türkiye Industrial Food Market Size**

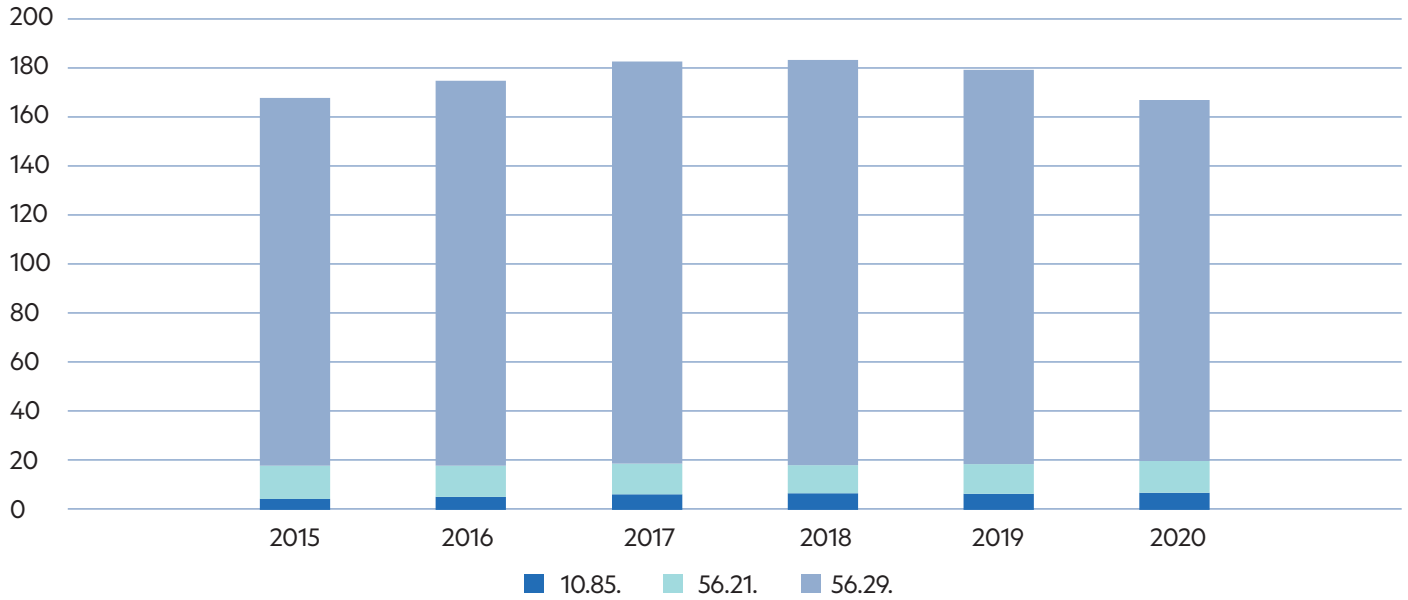
Data Type	NACE		2015	2016	2017	2018	2019	2020
	Code/Years							
Number of Employees (number)	10.85.		4,502	5,394	6,437	6,812	6,687	7,023
	56.21.		13,675	12,885	12,613	11,683	12,180	13,181
	56.29.		151,009	157,969	165,251	166,356	162,011	148,132
	<b>Total</b>		<b>169,186</b>	<b>176,248</b>	<b>184,301</b>	<b>184,851</b>	<b>180,878</b>	<b>168,336</b>
Turnover (TL)	10.85.		751,141,391	(1)*	1,426,386,949	1,924,073,739	2,533,575,821	(1)*
	56.21.		1,253,995,183	1,365,425,313	1,458,545,708	1,524,730,067	1,886,845,663	2,235,927,365
	56.29.		12,393,511,895	14,650,754,147	17,142,721,602	20,422,054,799	23,744,584,653	20,800,634,627
	<b>Total</b>		<b>14,398,648,469</b>	<b>16,016,179,460</b>	<b>20,027,654,259</b>	<b>23,870,858,605</b>	<b>28,165,006,137</b>	<b>23,036,561,992</b>
Turnover (dollars)	<b>Total</b>		<b>5,235,872,171</b>	<b>5,285,867,809</b>	<b>5,502,102,818</b>	<b>4,921,826,516</b>	<b>4,967,373,216</b>	<b>3,249,162,481</b>
Number of Enterprises	10.85.		382	480	497	527	537	562
	56.21.		928	969	1,062	1,017	993	943
	56.29.		18,410	18,921	19,318	19,835	20,382	18,918
	<b>Total</b>		<b>19,720</b>	<b>20,370</b>	<b>20,877</b>	<b>21,379</b>	<b>21,912</b>	<b>20,423</b>
Total Goods and Services Purchases (TRY)	10.85.		663,743,361	798,914,169	1,183,947,653	(1)*	2,112,889,272	c
	56.21.		994,295,993	1,063,565,127	1,142,028,023	1,165,466,426	1,440,389,428	1,670,533,386
	56.29.		9,318,078,440	10,563,902,548	12,703,621,563	15,452,724,650	17,472,797,357	15,337,818,198
	<b>Total</b>		<b>10,976,117,794</b>	<b>12,426,381,844</b>	<b>15,029,597,239</b>	<b>16,618,191,076</b>	<b>21,026,076,057</b>	
USD / TRY			2.75	3.3	3.64	4.85	5.67	7.09



## OUTLOOK OF THE SECTOR IN TÜRKİYE

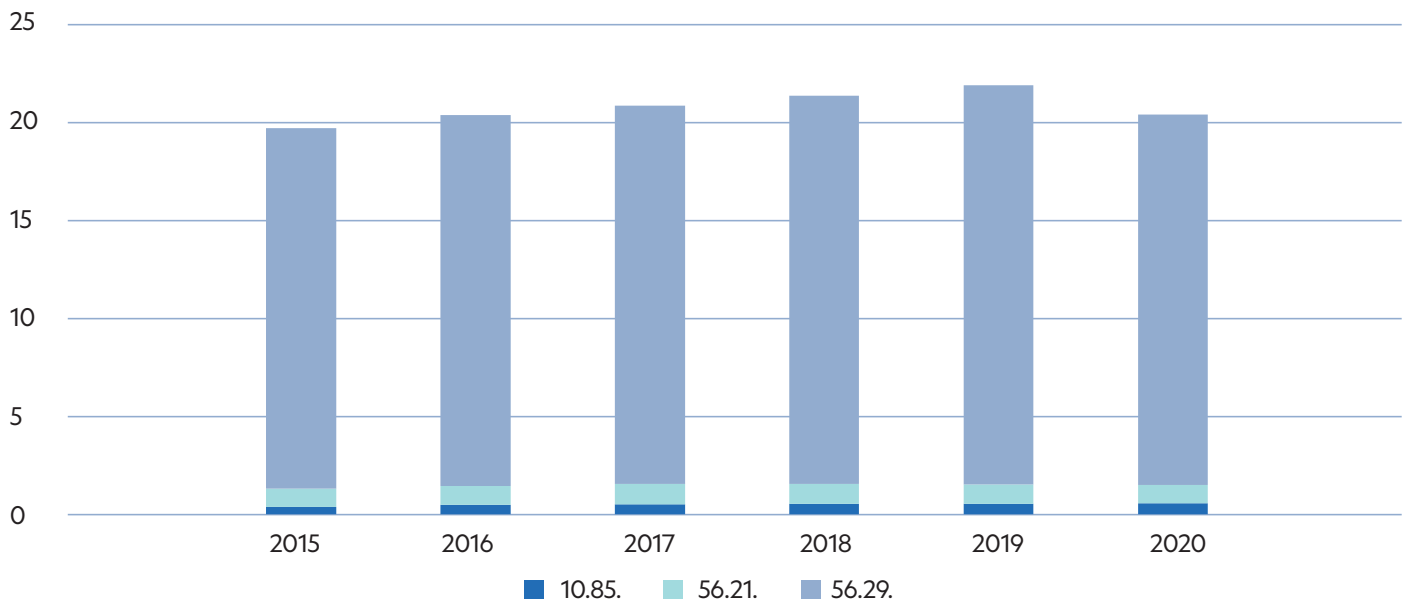
Source: TURKSTAT.

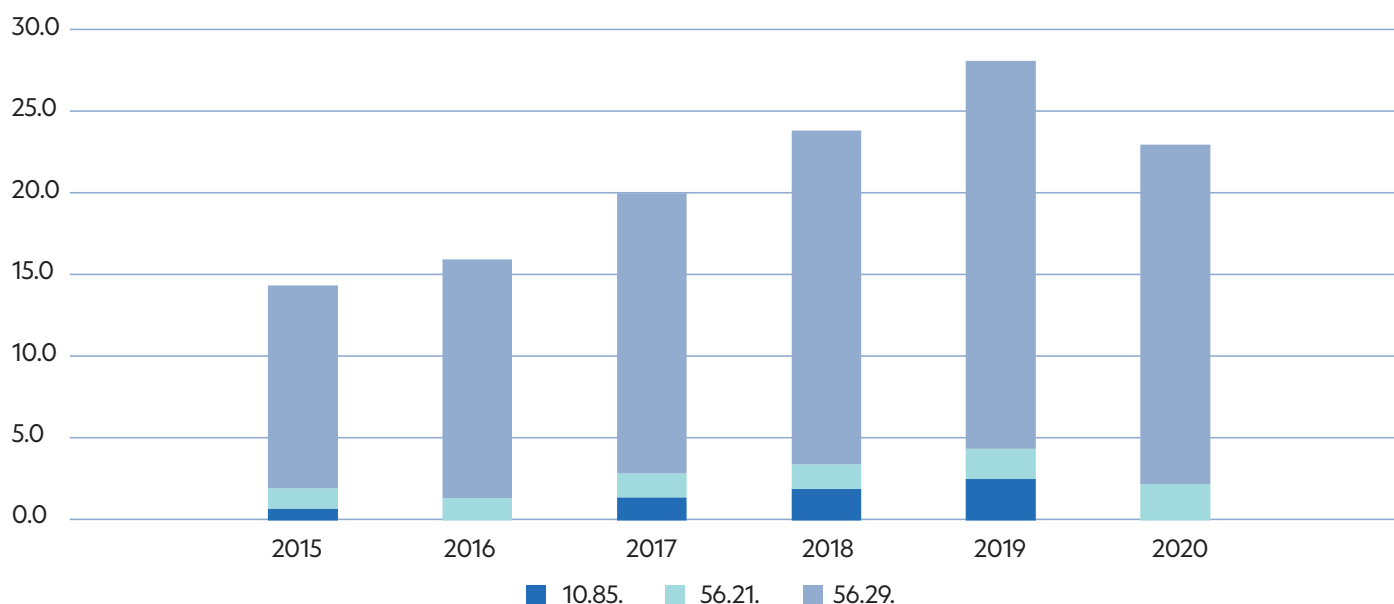
**Chart 63: Number of Employees in Türkiye by NACE Codes (Thousand)**



Source: TURKSTAT.

**Chart 64: Number of Enterprises in Türkiye by NACE Codes (Thousand)**



**Chart 65: Turkish Market Size by NACE Codes (Billion TRY)**

As a result of the studies, it has been determined that the total serviceable available industrial food sector market in Türkiye is around 22.2 billion TL. On the other hand, although the current market size is 4.5 billion dollars, it can be said that only 20% of the potential has been reached. While 80% of the current market consists of the private sector, 63% of the total serviceable available market is made up of the public sector.

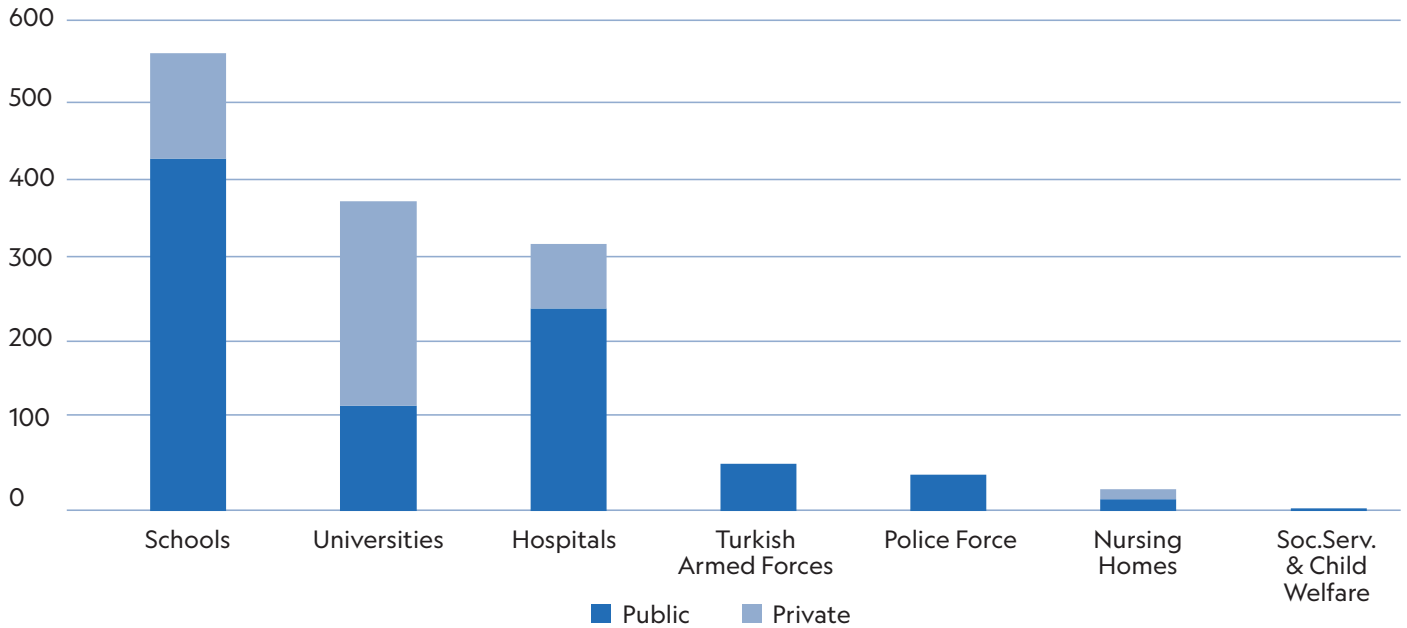
Looking at the current market, 13% of the private sector with a market size of approximately 3.6 billion dollars consists of private schools, universities, hospitals and nursing homes, while the market size

of the insured working in the other private sector is calculated as 3.1 billion dollars. In the public sector with a market size of 0.9 billion dollars, in addition to the aforementioned institutions, Social Services and Child Welfare Agencies, Turkish Armed Forces, police personnel and courthouse personnel constitute the current market. The chart below shows the current market sizes by institutions.



Source: Consulta Research.

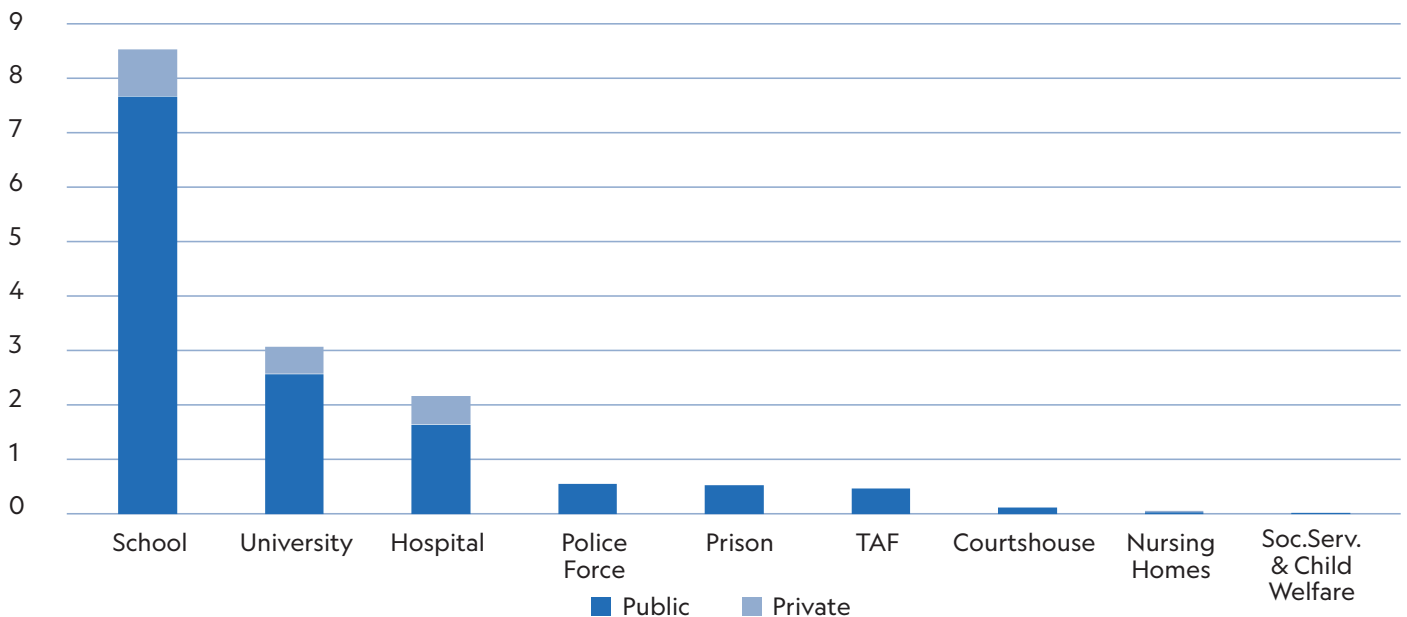
**Chart 66: Current Industrial Food Market Size by Institutions (Million Dollars)**



Considering the total serviceable available market with a market size of 2.2 billion dollars, it can be said that public schools constitute 33.4% of the market, and prisons and other insured personnel working in the public sector are included in the total serviceable available market in addition to the public institutions taking part in the current market. The chart below shows the total serviceable available market sizes by institutions.

Source: Consulta Research.

**Chart 67: Total Serviceable Available Industrial Food Market by Institutions (Billion Dollars)**



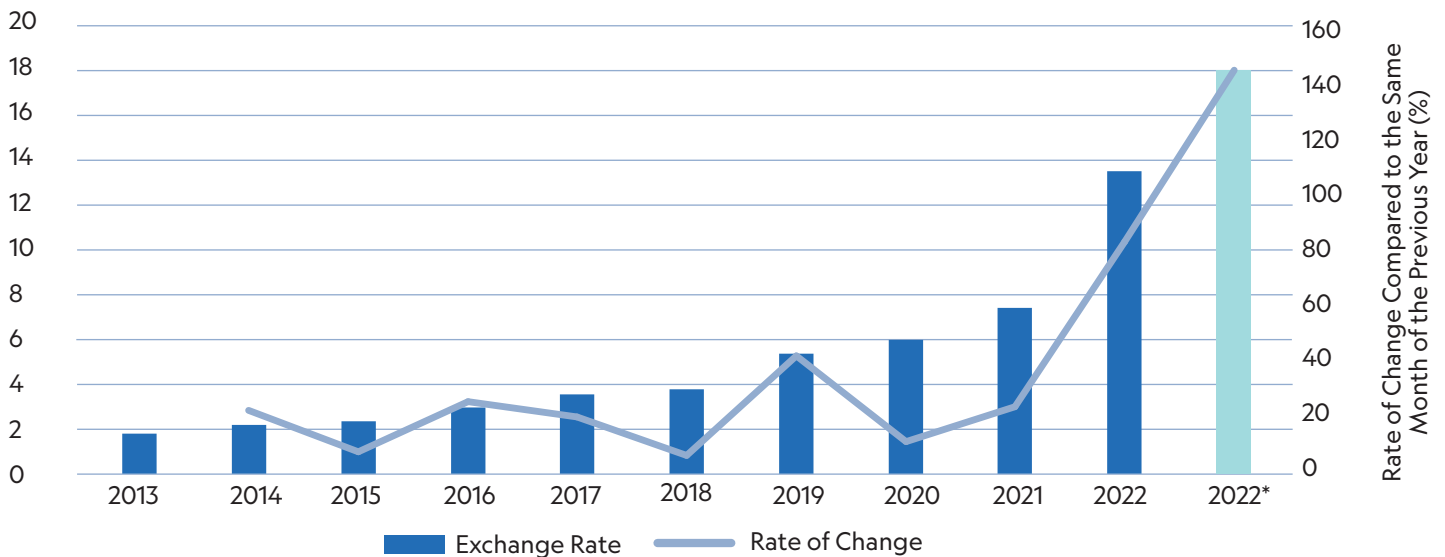
#### 2.4.1. Factors Affecting Market Size

Looking at the general outlook of the Turkish industrial food market, it is seen that the sector size is approximately 4.5 billion dollars in 2021. The turnover of the sector has varied between 4.5 and 5.5 billion dollars in recent years. The reason behind these fluctuations is the excessive volatility of the Turkish economy and exchange rates. Industry turnover has been severely affected by the pandemic. Turnover in TL terms decreased by 10% compared to the previous year and 28% in dollars. Assuming that inflation in TL is 15% and in dollar 2.5% in 2020, adjusted for inflation, the sector's turnover shrank by 21.8% on TL basis and 28.1% on dollar basis. The number of employees broke the increasing trend for the first time in 2019 and entered a decreasing trend. With the effect of the pandemic, this decrease has reached very serious levels. With 12,878 employees leaving the sector, there was a 7.3% decrease

in the number of employees. The number of enterprises, on the other hand, is in correlation with the number of employees, and it broke the increasing trend for the first time in 2019 and decreased by 7% with the effect of the pandemic. The dollar rate data is shown in the chart by taking the January data of each year from the Central Bank of the Republic of Türkiye. (Central Bank of the Republic of Türkiye, 2022)

Source: Central Bank of the Republic of Türkiye  
\*Data for the year 2022 belongs to the date of 29.07.2022.

Chart 68: Exchange Rate (Dollar/TRY)



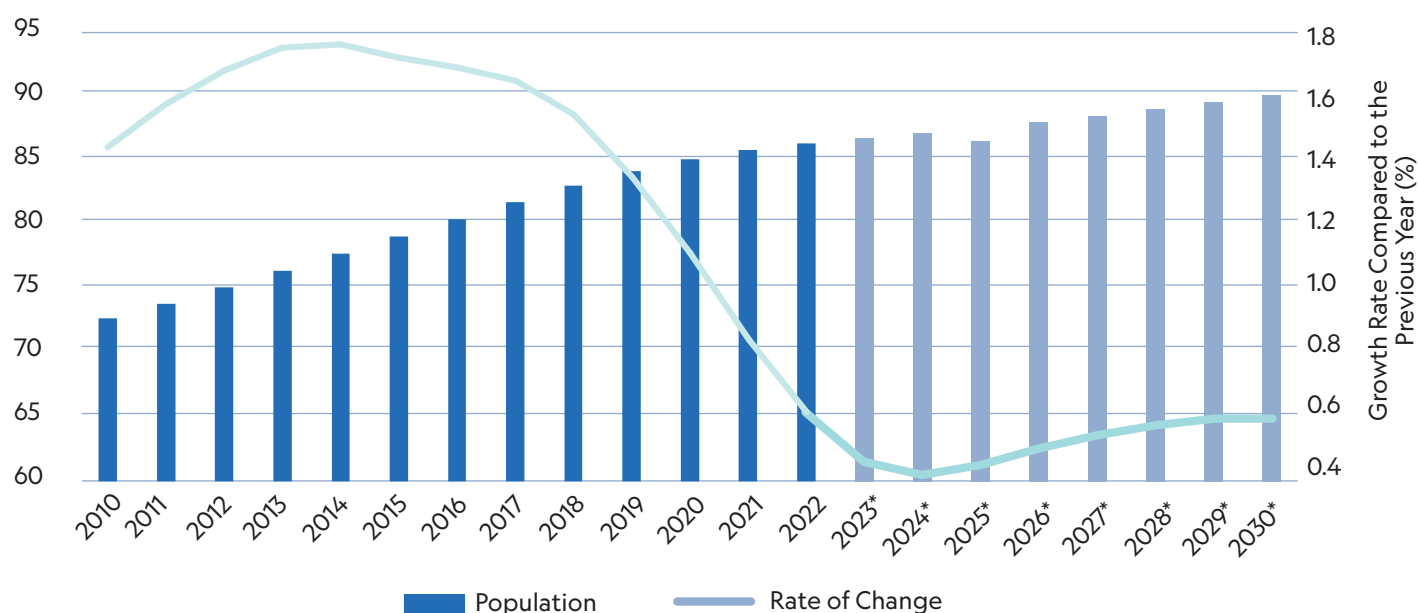
## OUTLOOK OF THE SECTOR IN TÜRKİYE

### 2.4.1.1. Population of Türkiye

According to official records, the population of Türkiye has exceeded the level of 85 million as of 2022. When illegal immigrants and people under temporary protection are also taken into account, the total population is estimated to be higher than this number. In addition, although the population growth rate is expected to decrease in future projections, the official total population is expected to reach 90 million by 2030 (Macrotrends, 2022).

Source: Macrotrends, 2022.

**Chart 69: Türkiye's Population Estimates (Million People)**

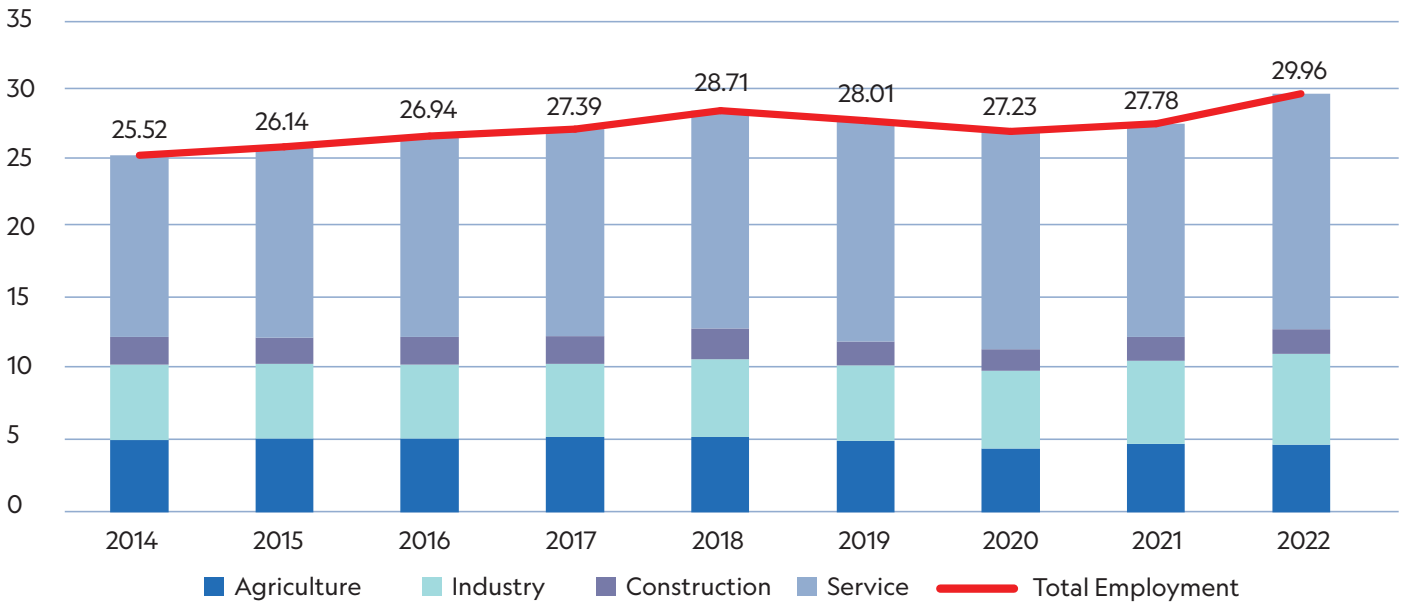


### 2.4.1.2. Working Population

The number of people employed is indicated in the chart according to the first quarter of each year. It is observed that the services sector has a large share in total employment in Türkiye and that total employment has a weak upward trend in recent years (TURKSTAT, 2022).

Source: TURKSTAT.

**Chart 70: Sectoral Employment Status (Million People)**



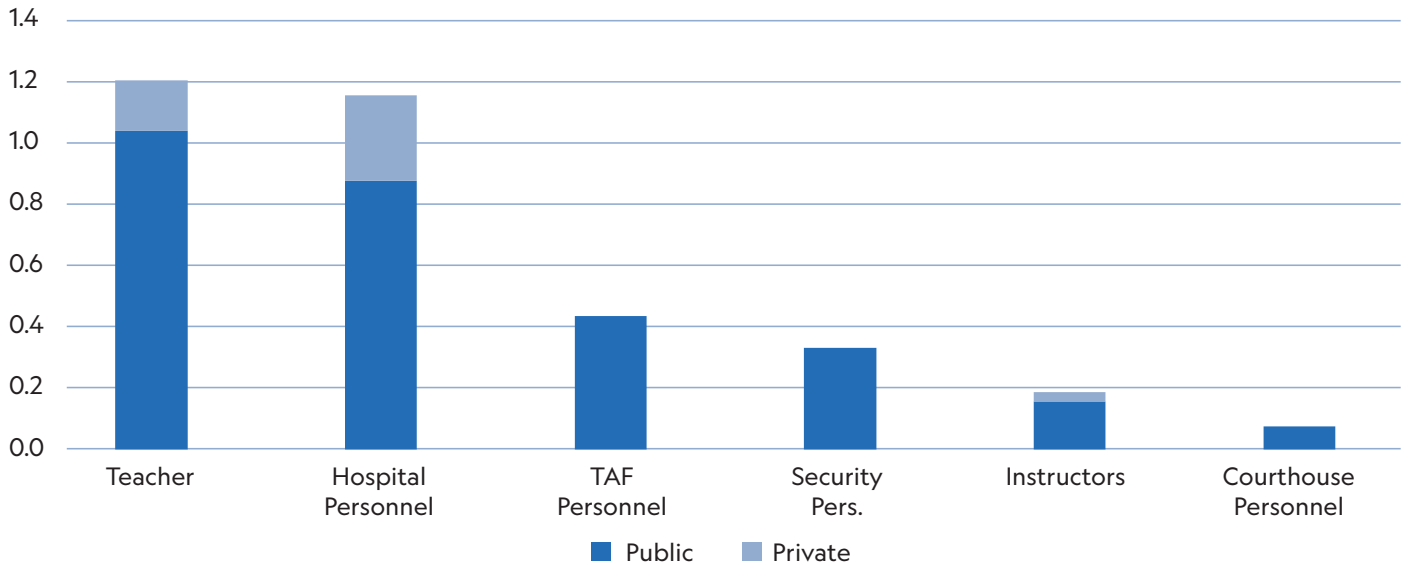
As a result of the research, the working people population is 23 million people in total in Türkiye, 18 million in the private sector and 5 million in the public sector, according to the figures of 2021. In addition to the number of employees indicated in the chart below, the number of other insured personnel working in the private sector is 17.6 million, while the number of other insured personnel in the public sector is over 2 million.



## OUTLOOK OF THE SECTOR IN TÜRKİYE

Source: Consulta Research.

**Chart 71: Number of Employees (Million People)**

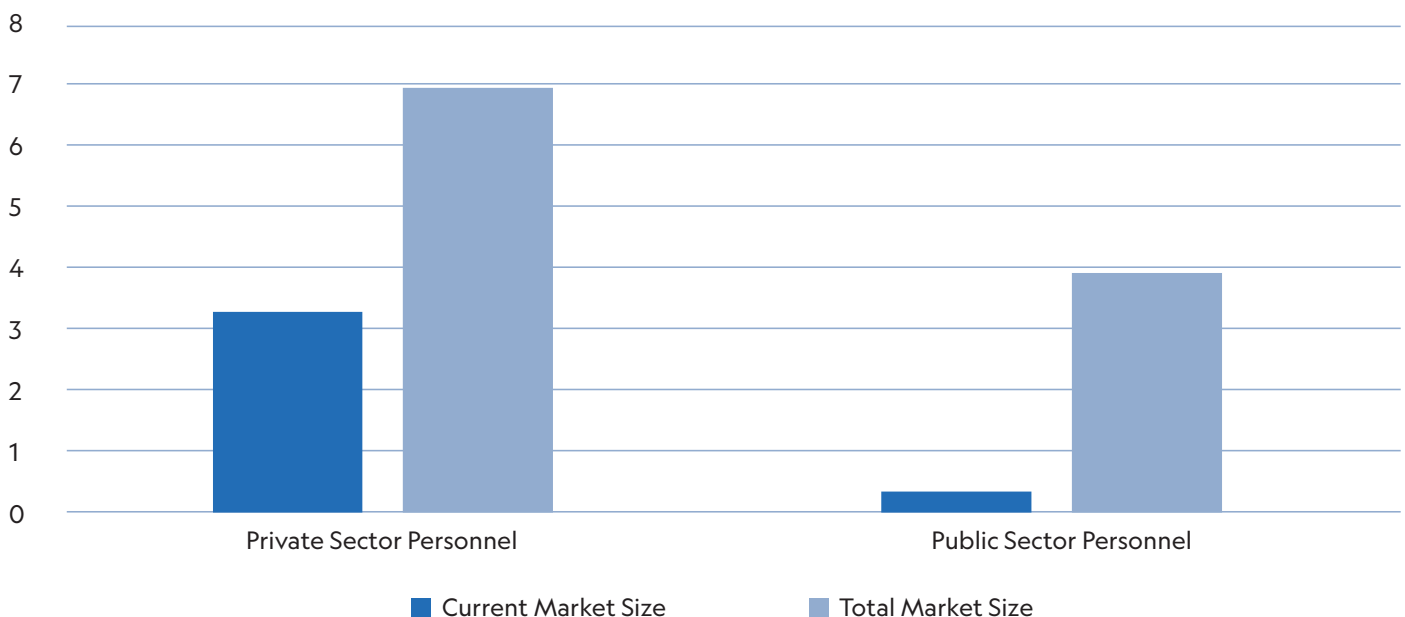


The working population is the largest customer group for the industrial food sector. Although the market size of the population working in the total serviceable available industrial food sector is 10.7 billion dollars, the market size of the currently reached working population is calculated as 3.6 billion

dollars. Approximately 47% of the potential working population in the private sector receives services from the industrial food sector, while this ratio is only approximately 9% in the public sector. So, it can be said that the industrial food sector in Türkiye has not yet reached saturation.

Source: Consulta Araştırma

**Chart 72: Market Size of the Working Population (Billion Dollars)**

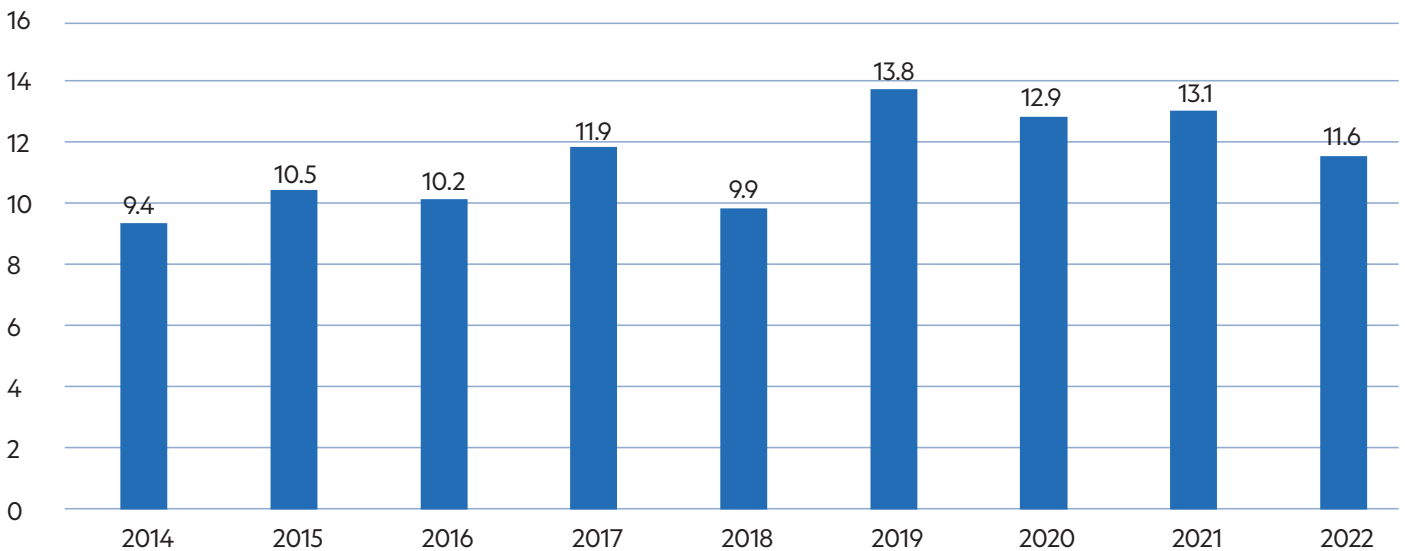


Unemployment is a factor that directly affects the market size of the industrial food sector, along with the working population, which constitutes almost 48% of the market size in the total serviceable available industrial food sector, which is approximately 22.2 billion dollars. The increase in unemployment figures reduces the market size of the sector. There are nearly 4 million unemployed in Türkiye as of 2021. People who do not work in any job and spend their time at home cannot become customers of the industrial food

sector. This situation prevents the industrial food sector from reaching its existing potential market size. Unemployment rates for the first quarter of each year are indicated in the chart. The unemployment rate, which fell below 10% in 2018, reached approximately 14% in 2019 (TURKSTAT, 2022).

Source: TURKSTAT.

**Chart 73: Unemployment Rate (%)**





## OUTLOOK OF THE SECTOR IN TÜRKİYE

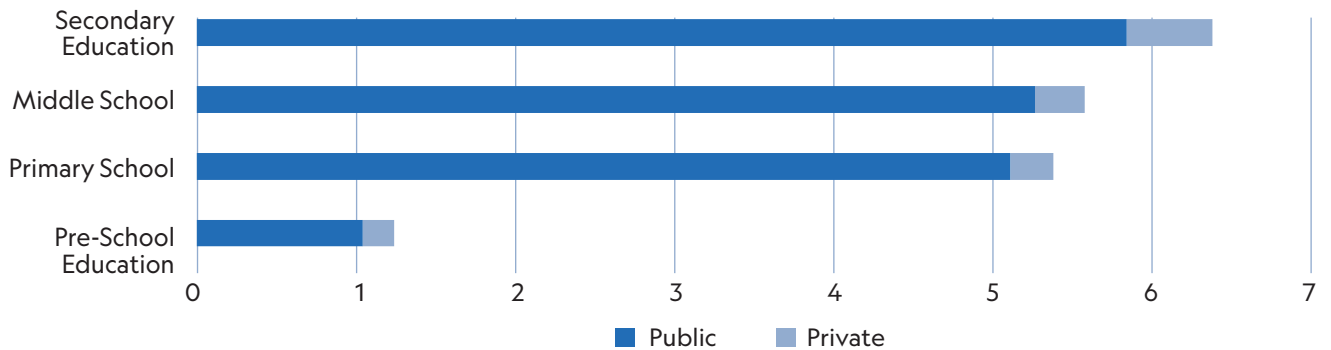
### 2.4.1.3. Educational institutions

Educational institutions with 18 million students are one of the most important factors affecting the market size of the industrial food sector in our country. Ready-made foods and packaged foods in canteens are not always sufficient for students who spend most of their days at school. In addition, school cafeterias are a necessity for students looking for healthier alternatives.

Approximately 1.3 million of the students studying in schools in Türkiye are studying in private schools, and 17 million in public schools (Turkish Ministry of National Education, Presidency of Strategy Development, 2021).

Source: Turkish Ministry of National Education, Presidency of Strategy Development, 2021.

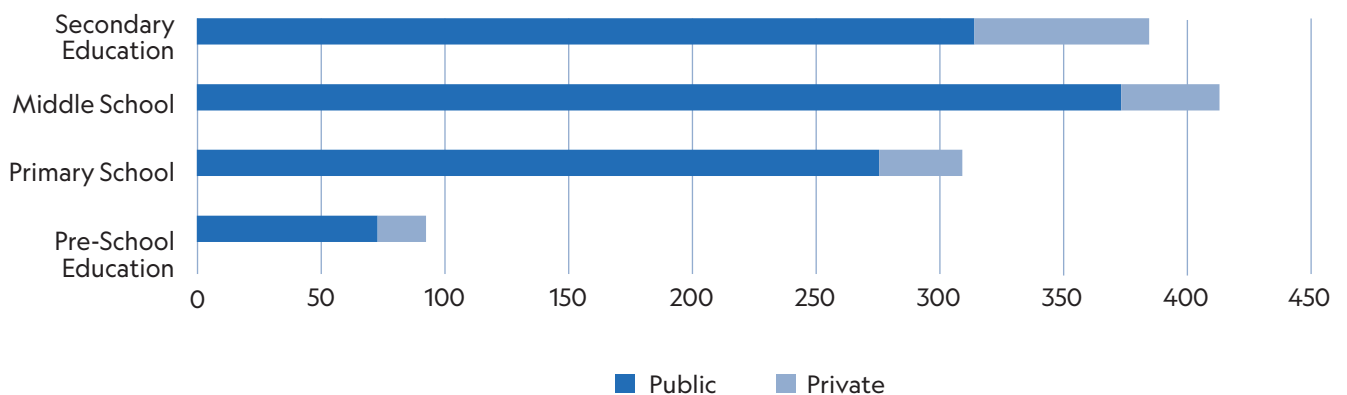
**Chart 74: Number of Students in Schools (Million People)**



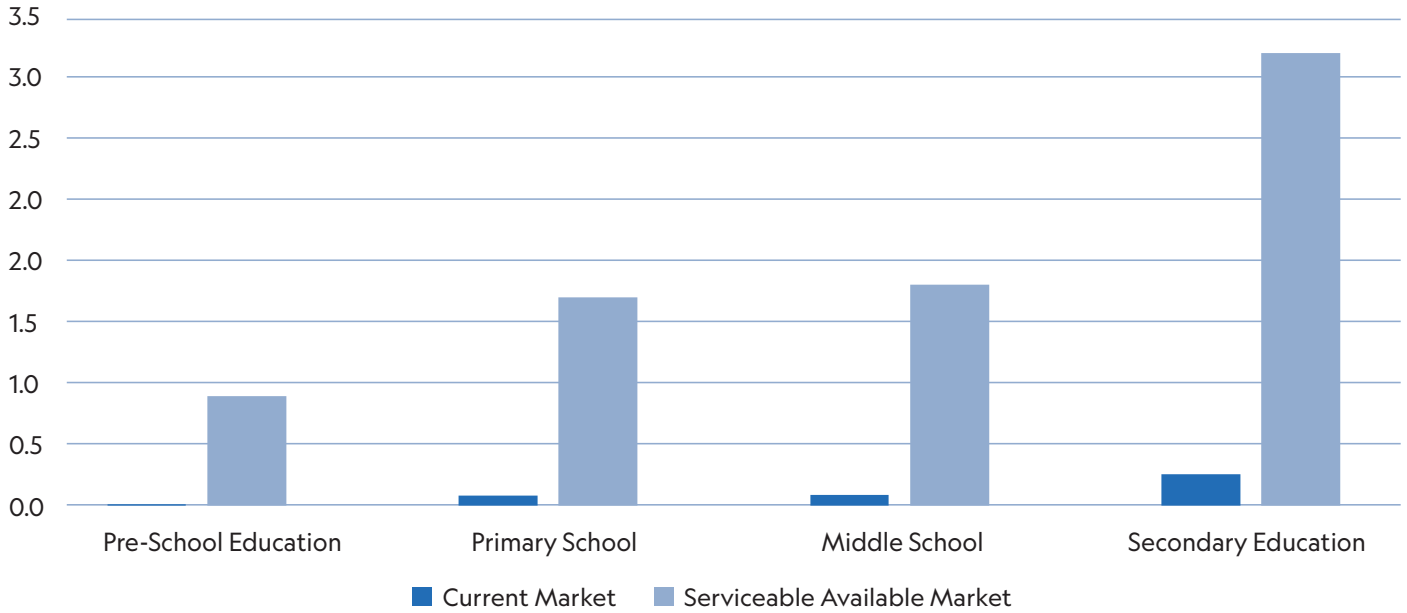
In addition to the number of students in the schools, the potential for the industrial food market includes the teachers in the schools.

Source: Turkish Ministry of National Education, Presidency of Strategy Development, 2021.

**Chart 75: Number of Teachers in Schools (Thousand People)**

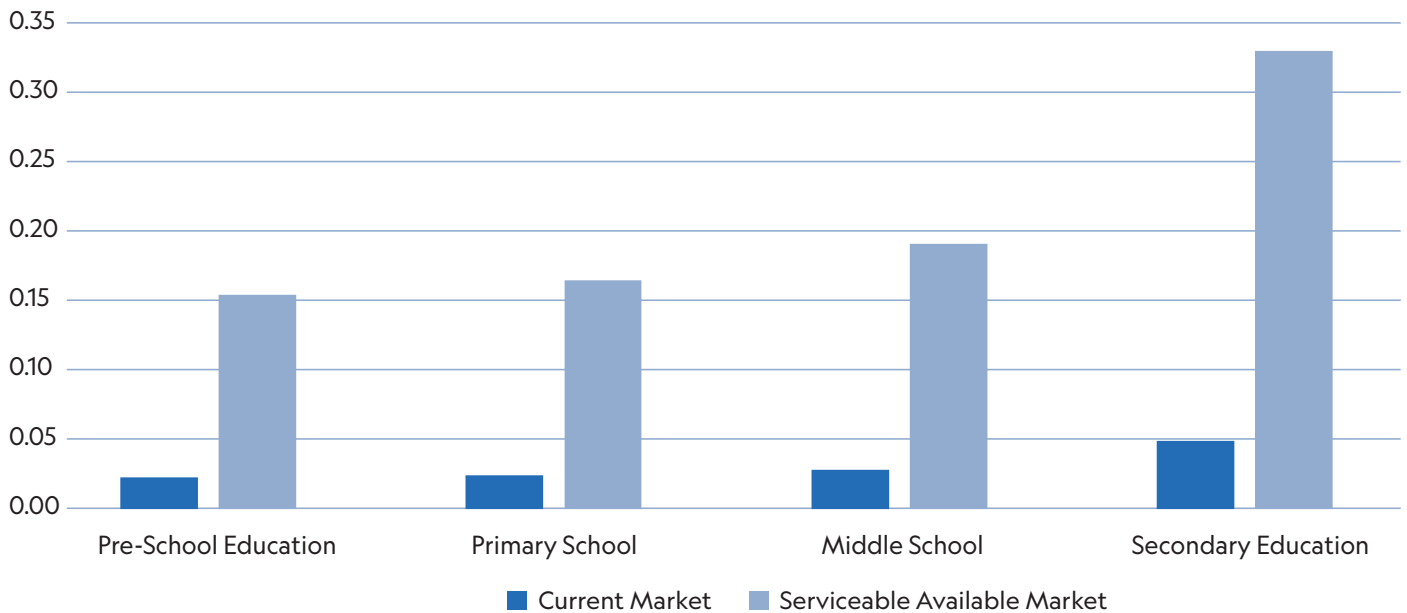


State schools constitute 77% of the current market formed by students studying at schools and 90% of the total serviceable available market. The current market and serviceable available market of public schools according to education levels are given in the chart below.

**Chart 76: Market Size in Public Schools (Billion Dollars)**

Students studying at schools accounts for 11% of the current industrial food market size with approximately 0.5 billion dollars, and 33% of the total serviceable available industrial food market with 7.4 billion dollars. Private schools constitute 23% of the current market

formed by students studying at schools, and only 10% of the total serviceable available market. The current market and serviceable available market of private schools according to education levels are given in the chart below.

**Chart 77: Market Size in Private Schools (Billion Dollars)**

About 600,000 university students in Türkiye study at private universities, and 2.6 million at state universities (Higher Education Information Management System, 2021).

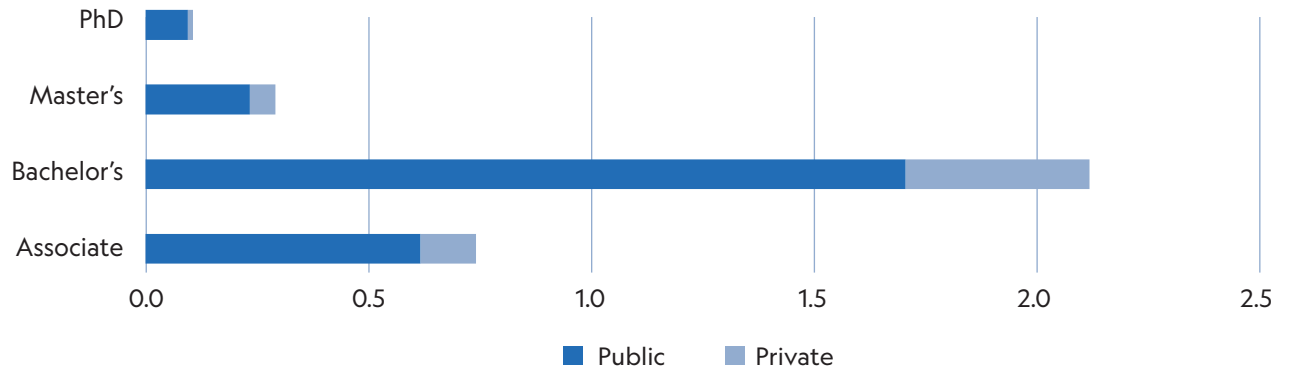




## OUTLOOK OF THE SECTOR IN TÜRKİYE

Source: Higher Education Information Management System.

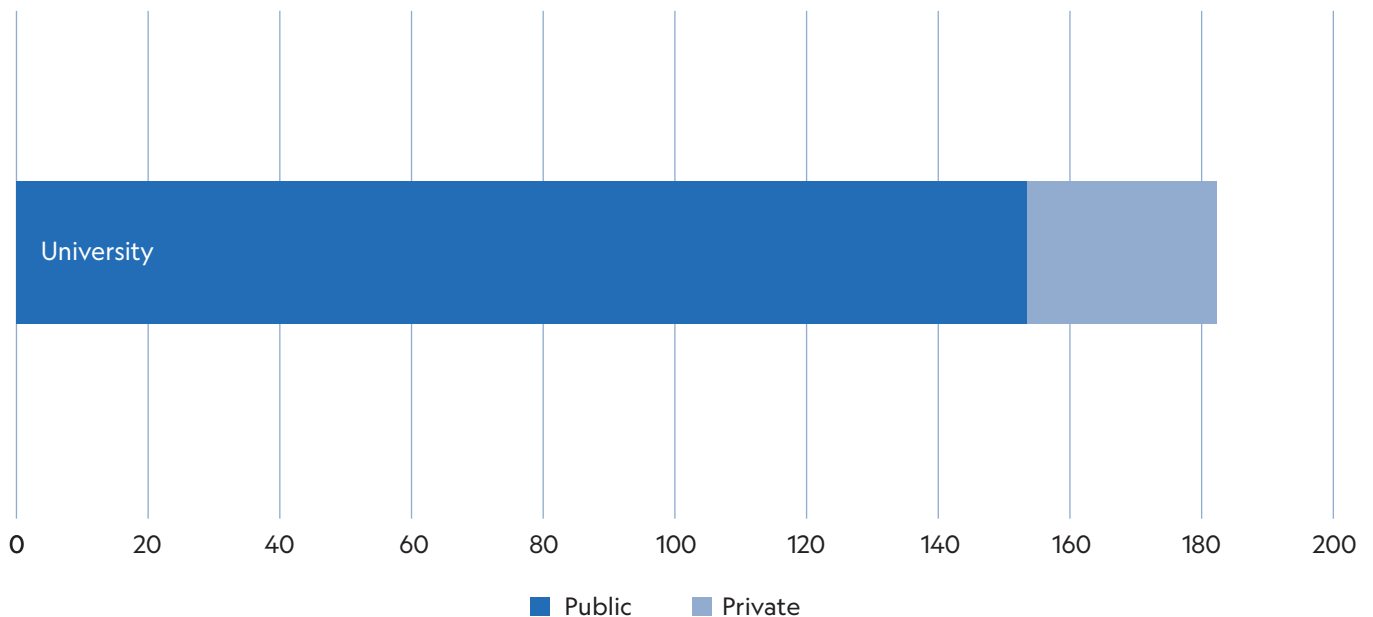
**Chart 78: Number of University Students (Million People)**

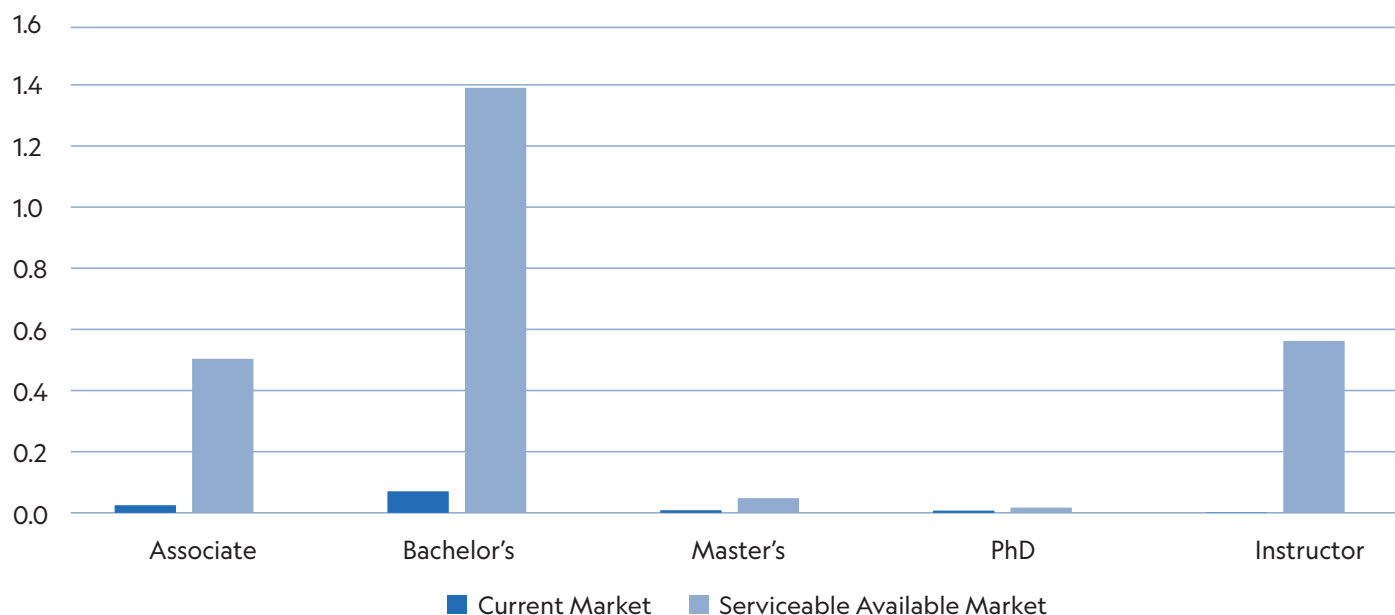


In addition to the number of students in universities, professors and instructors should also be included in the industrial food market size. In this direction, it is seen that there are over 180 thousand instructors in Türkiye.

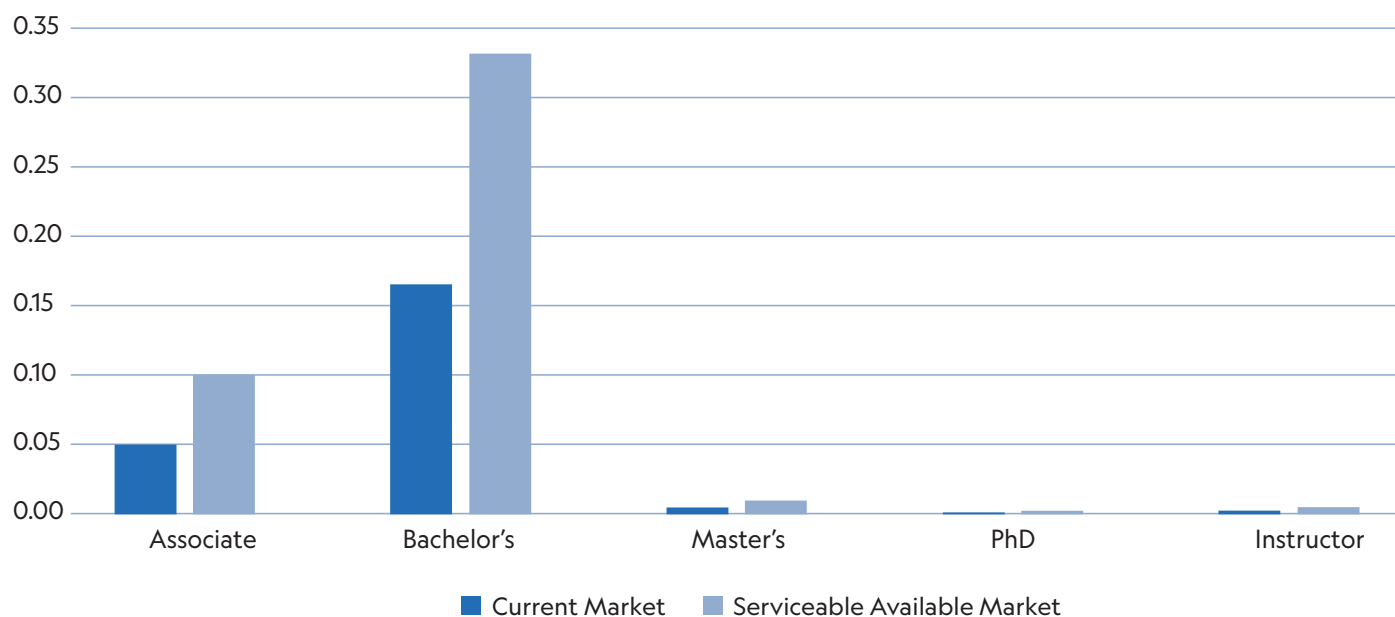
Source: Higher Education Information Management System.

**Chart 79: Number of Instructors (Thousand)**

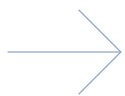


**Chart 80: Market Size in State Universities (Billion Dollars)**

The market size of state universities is currently estimated at around \$100 million. The serviceable available market size is around 2.5 billion dollars. These estimates point to a large potential market.

**Chart 81: Market Size in Private Universities (Billion Dollars)**

In private universities, the current market size is 224 million dollars, but the serviceable available market size is 448 million dollars. Although these numbers are not close to state universities, they represent an important potential.



## OUTLOOK OF THE SECTOR IN TÜRKİYE

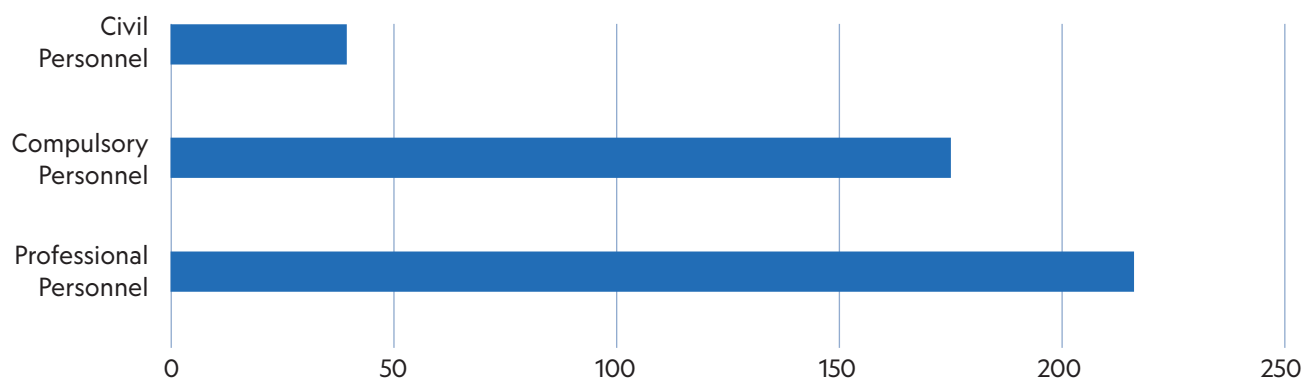
### 2.4.1.4. Military Institutions

Military institutions do not prefer outsourcing much in meeting the catering service, as it is a strategic area. Only 120-150 thousand personnel of the Turkish Armed Forces, which has more than 450 thousand personnel, can be targeted. Most of the TAF personnel do not outsource industrial food service today. Considering

that the TAF already has its own kitchens and counters, it is thought that the industrial food sector can make a significant contribution to the current market share if it is organized (Turkish Ministry of National Defence, 2022).

Source: Turkish Ministry of National Defence

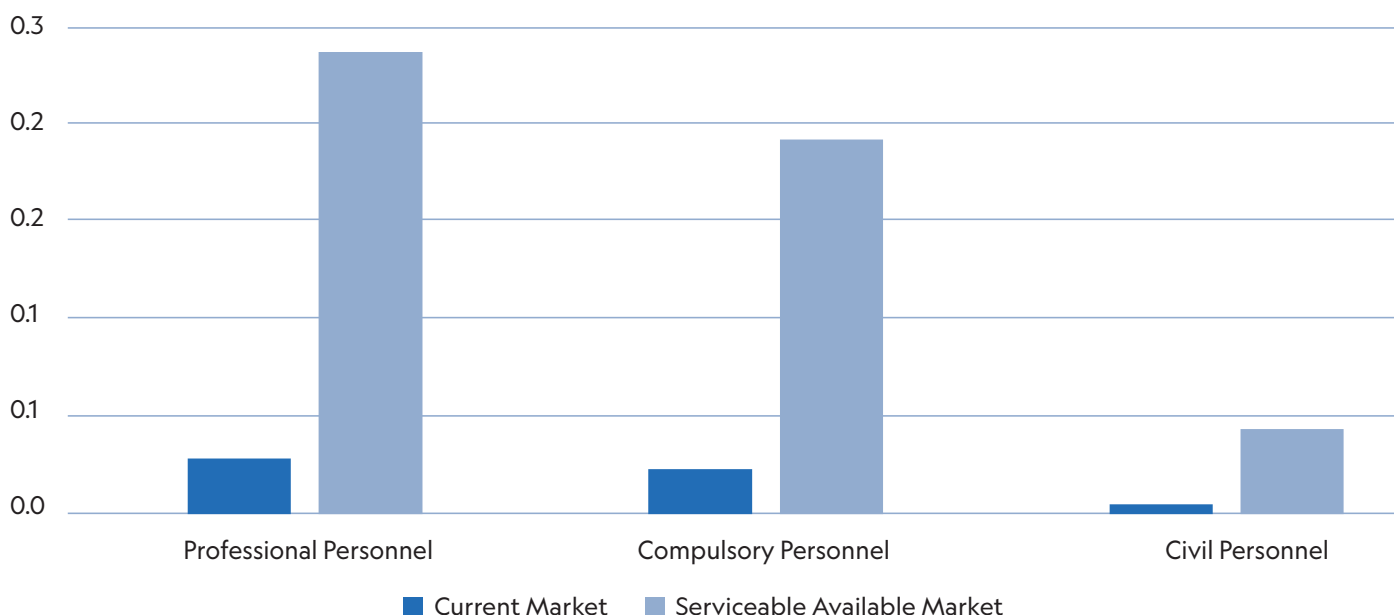
**Chart 82: Number of Turkish Armed Forces Employees (Thousand)**



The Turkish Armed Forces is currently a very important market for the sector with its personnel of over 450 thousand. Although the current market size is around 50 million dollars, TAF is an important potential market as the serviceable available market is approximately 465 million dollars.

Source: Consulta Research.

**Chart 83: Turkish Armed Forces Market Size (Billion Dollars)**



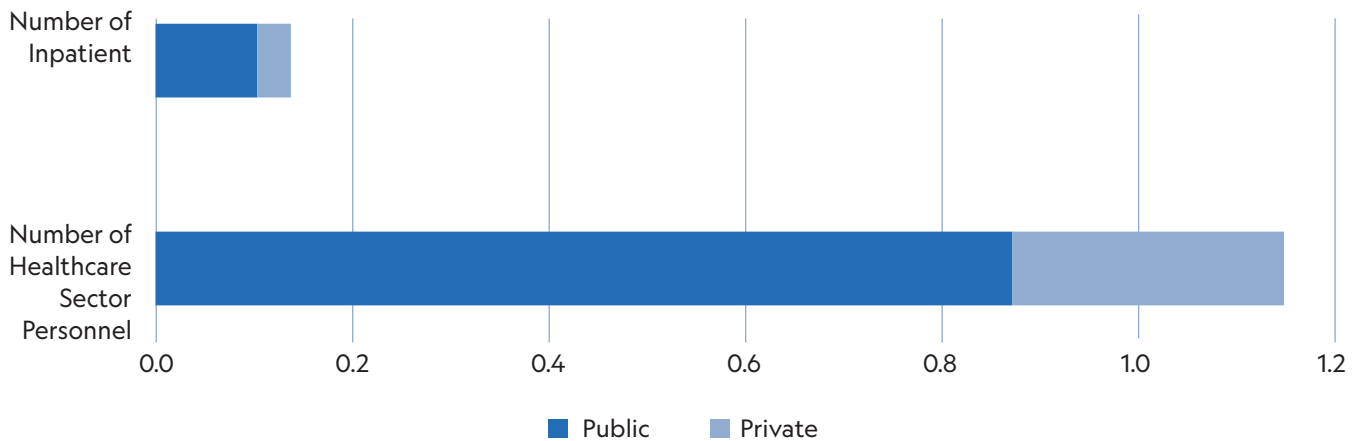
#### 2.4.1.5. Hospital

Hospitals are a large market area for the industrial food sector in Türkiye, even when only healthcare workers are taken into account. The sector stands out clearly with the number of employees approaching 1.2 million.

In addition, the high numbers and capacity in the number of inpatients, which vary from time to time, are extremely valuable for the industrial food sector.

Source: Turkish Ministry of Health.

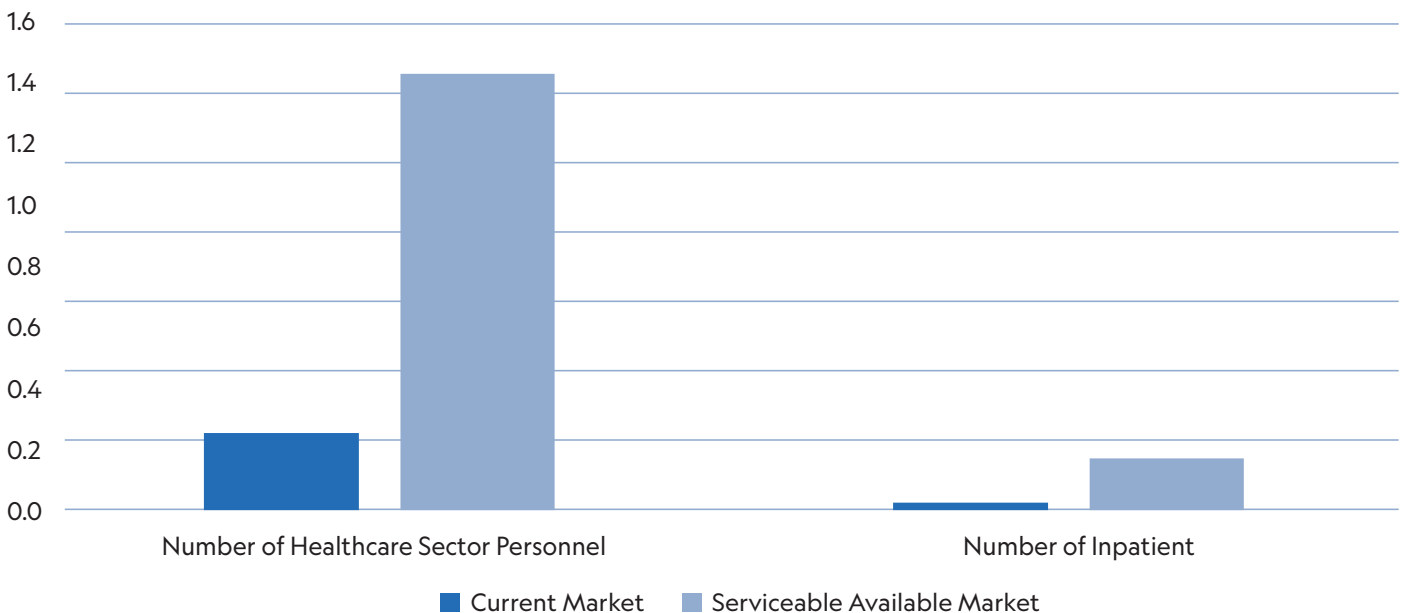
**Chart 84: Number of Persons in Hospitals (Million People)**



When examined closely, the approximate market size in public hospitals is 240 million dollars, while the potential is 1.6 billion dollars. This indicates a great potential as it is 7 times of the current market.

Source: Consulta Research.

**Chart 85: Market Size in State Hospitals (Billion Dollars)**





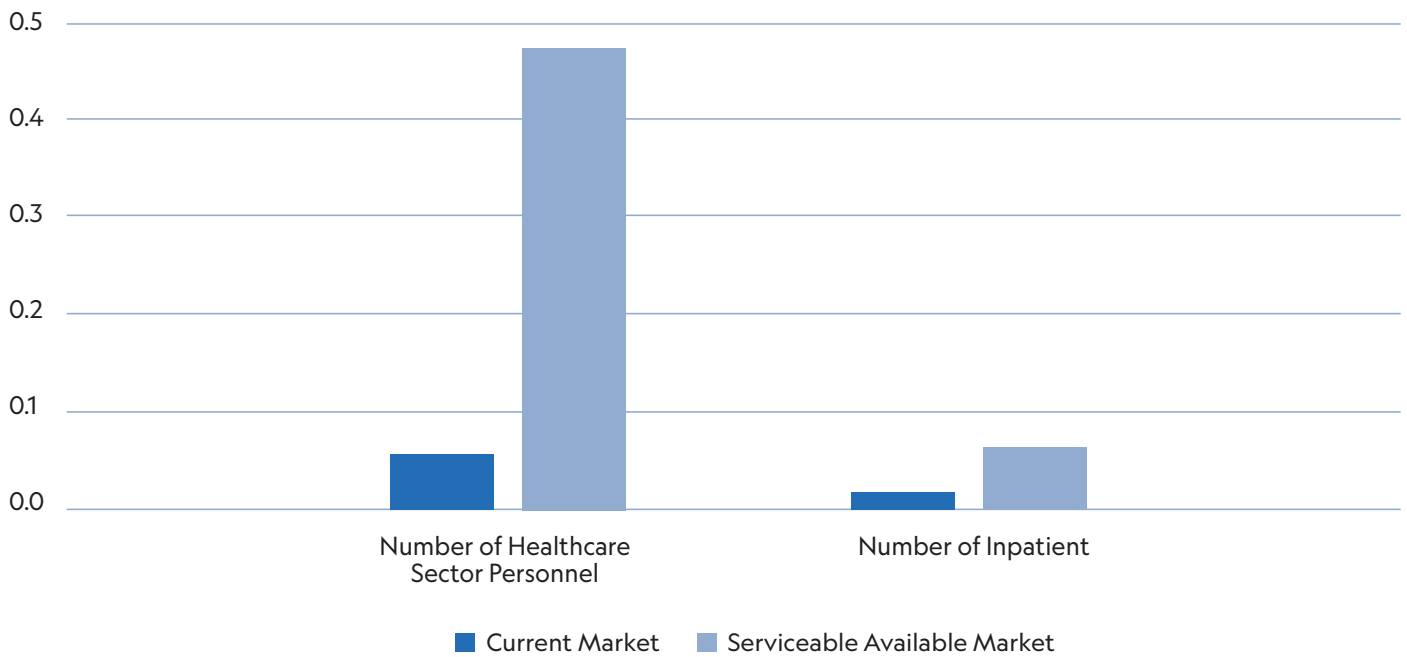
## OUTLOOK OF THE SECTOR IN TÜRKİYE

In addition to state hospitals, there is also an important potential market for the sector in private hospitals. Although the current market size is 75 million dollars, the data point to a market size of 500 million dollars. In

this direction, when state hospitals and private hospitals are considered together, the healthcare sector is very important for the industrial food sector.

Source: Consulta Research.

**Chart 86: Market Size in Private Hospitals (Billion Dollars)**



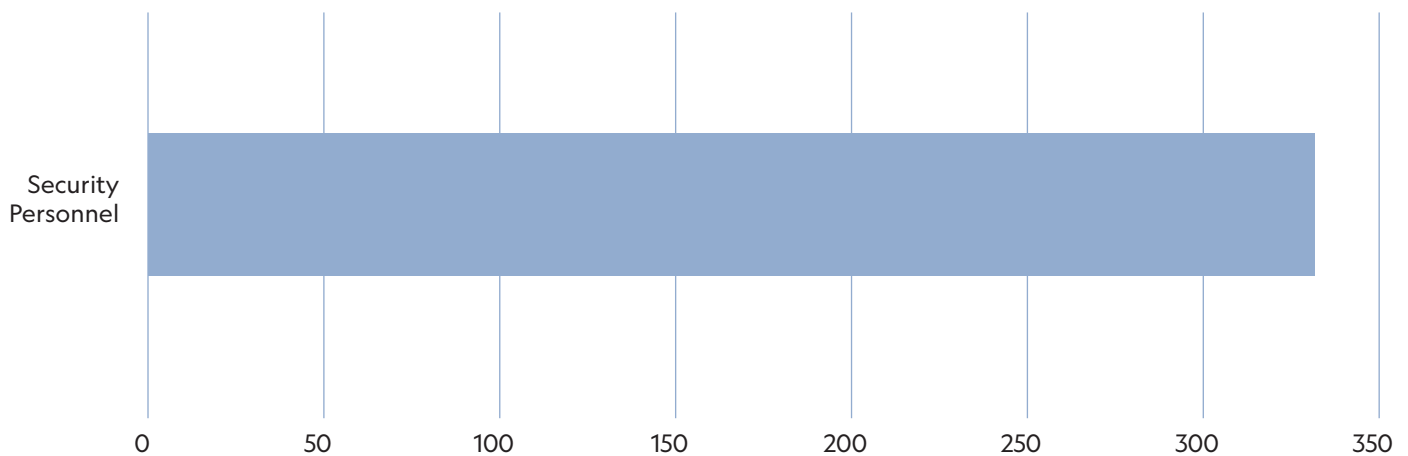
#### 2.4.1.6. Police Force

The police force is the most crowded law enforcement force in terms of its organizational structure and task structure. As of 2021, 329,000 personnel work in the force (Turkish General Directorate of Civil Society Relations, Ministry of Interior, 2021). The police force, whose duty and responsibility structure is similar

to the armed forces, has institutional architectures of various sizes, including city and district centers, police departments, security departments, education and social facilities. Especially schools, education and social facilities, large district and provincial police departments are the target markets of the industrial food sector with their higher number of personnel.

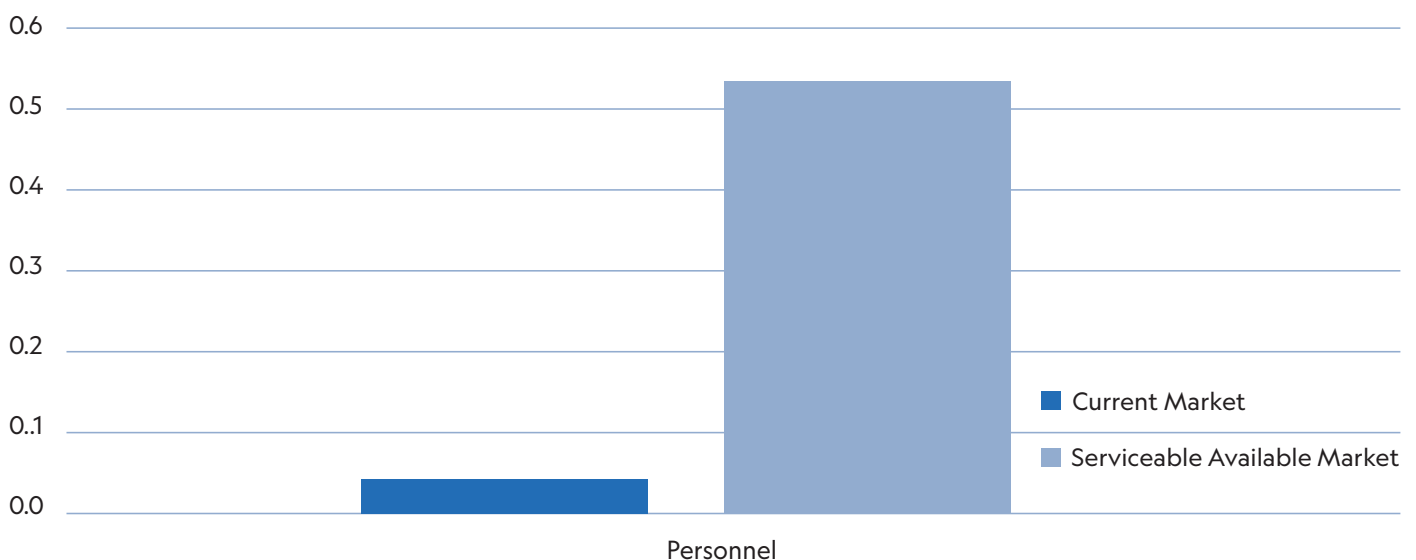
Source: Turkish General Directorate of Civil Society Relations, Ministry of Interior.

**Chart 87: Number of Police Force Personnel (Thousand)**



Source: Consulta Research.

**Chart 88: Police Force Market Size (Billion Dollars)**



The police force is an important potential market for the industrial food sector, just like the TAF. Although the current market size is 45 million dollars, data and calculations point to a potential of 540 million dollars.



## OUTLOOK OF THE SECTOR IN TÜRKİYE

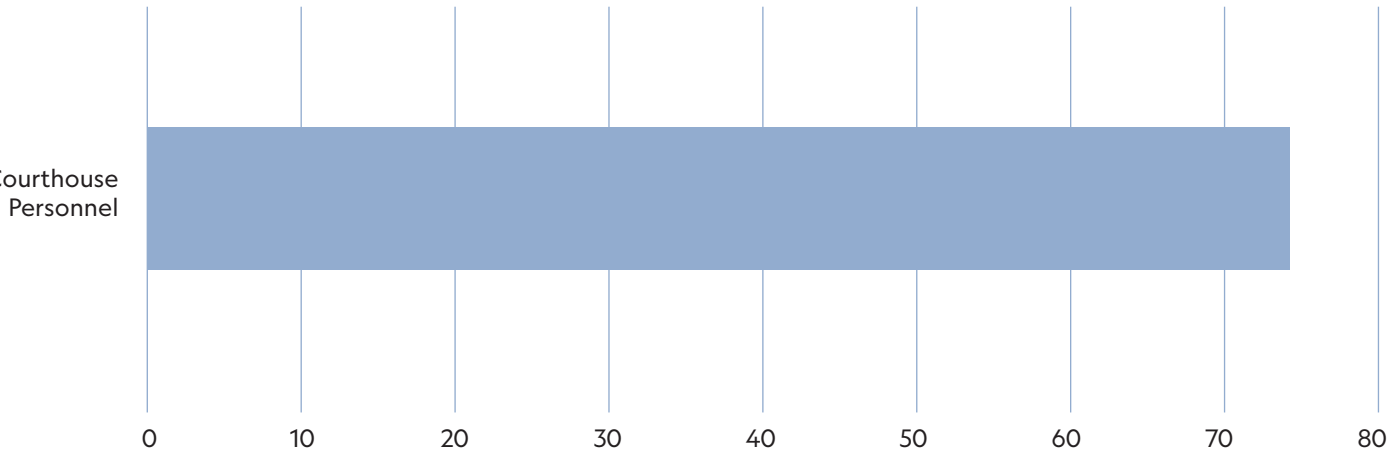
### 2.4.1.7. Judicial Organizations

Especially in mega-size courthouse buildings, which have started to be built increasingly in recent years, there is a population of public personnel, lawyers, law enforcement officers, ancillary service personnel and thousands of personnel working in the courthouses. For example, 5,342 personnel were working in the Istanbul

Anatolian Side courthouse, and the total number of courthouse employees in Türkiye reached 74,802. (CNN Türk, 2021) Therefore, there is a large market for the industrial food sector in courthouses. This market indicates a potential of approximately 120 million dollars.

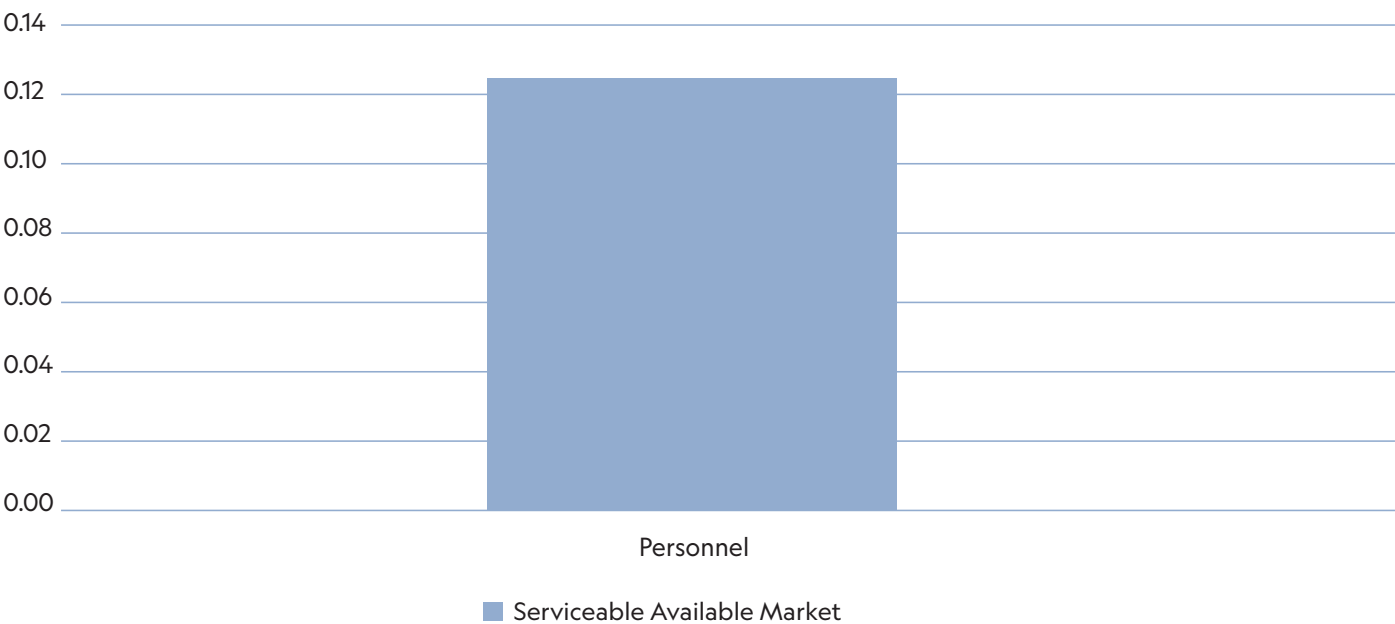
Source: Turkish General Directorate of Civil Society Relations, Ministry of Interior.

**Chart 89: Number of Courthouse Personnel (Thousand)**



Source: Consulta Research.

**Chart 90: Courthouse Market Size (Billion Dollars)**

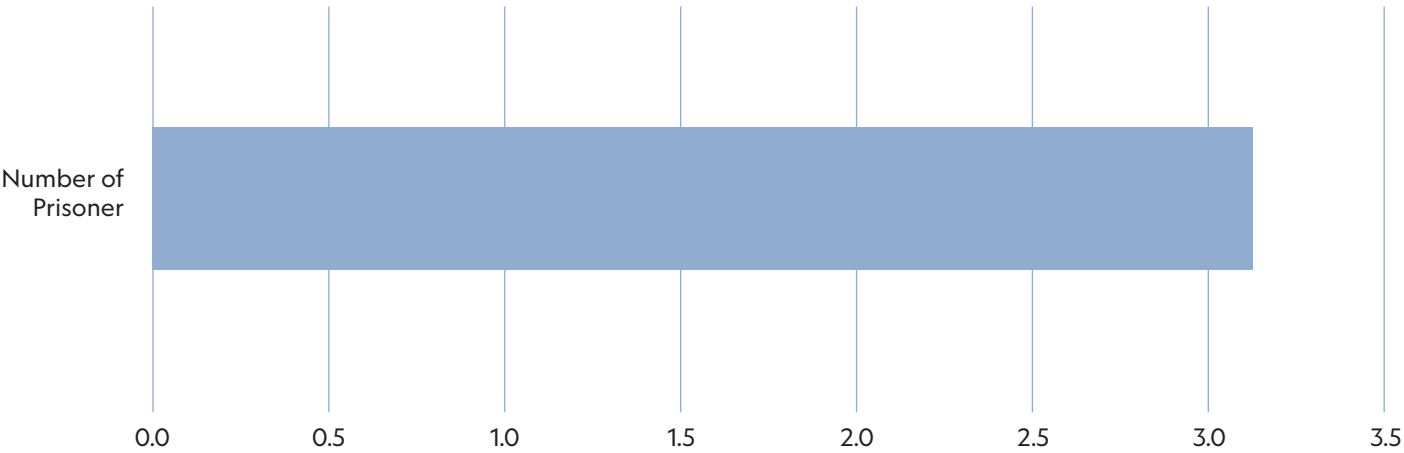


2.4.1.8. Prison

Prisons in Türkiye represent an important market for the industrial food sector with more than 300,000 prisoners. The potential market size is more than \$500 million.

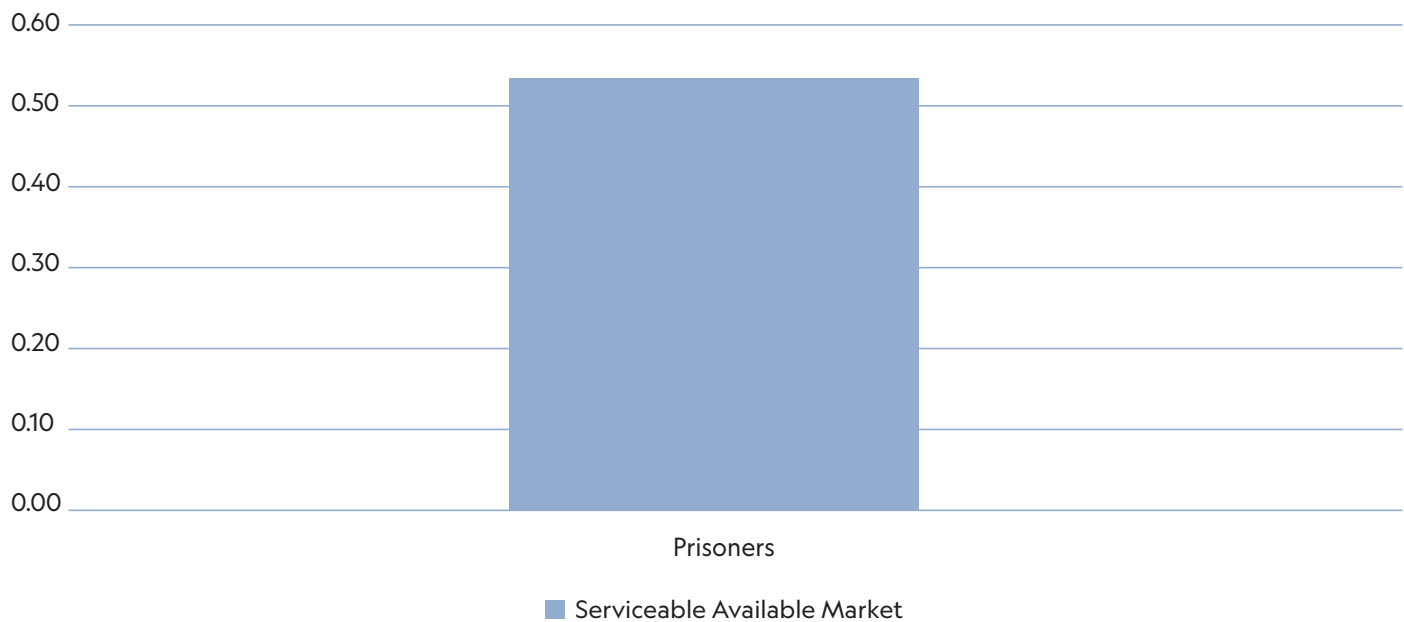
Source: Turkish Ministry of Justice. 2022.

Chart 91: Number of Prisoners in Prisons (One Hundred Thousand Persons)



Source: Consulta Research.

Chart 92: Prison Market Size (Billion Dollars)







## OUTLOOK OF THE SECTOR IN TÜRKİYE

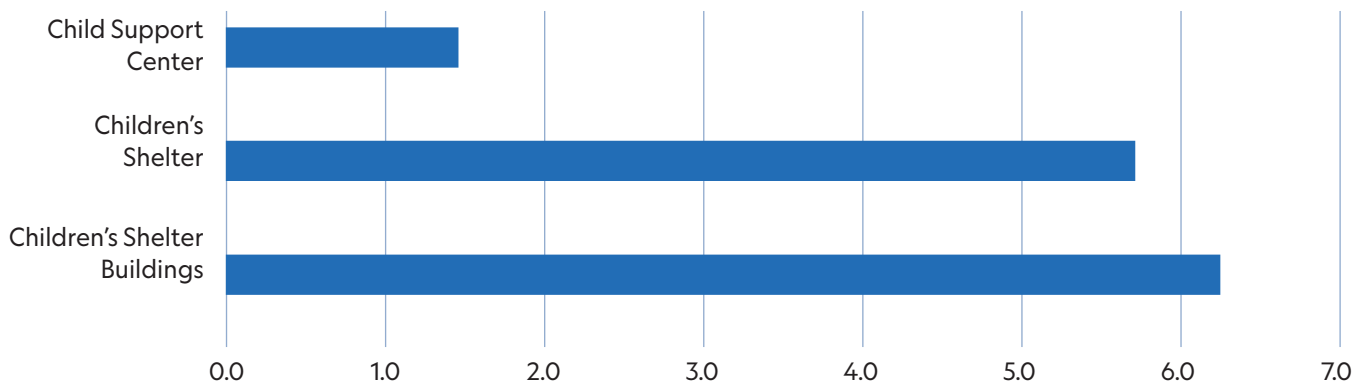
### 2.4.1.9. Child Welfare Agency

According to the 2020 data obtained from the Turkish Ministry of Family, Labor and Social Services, 6,181 children are provided with care services in 111 child shelters, 5,956 children are provided with 1,193 child

shelters and 1,387 children are provided with 65 child support centers (Ministry of Family, Labour and Social Services, 2021). Although the current market is quite limited, it points to a potential of 22 billion dollars.

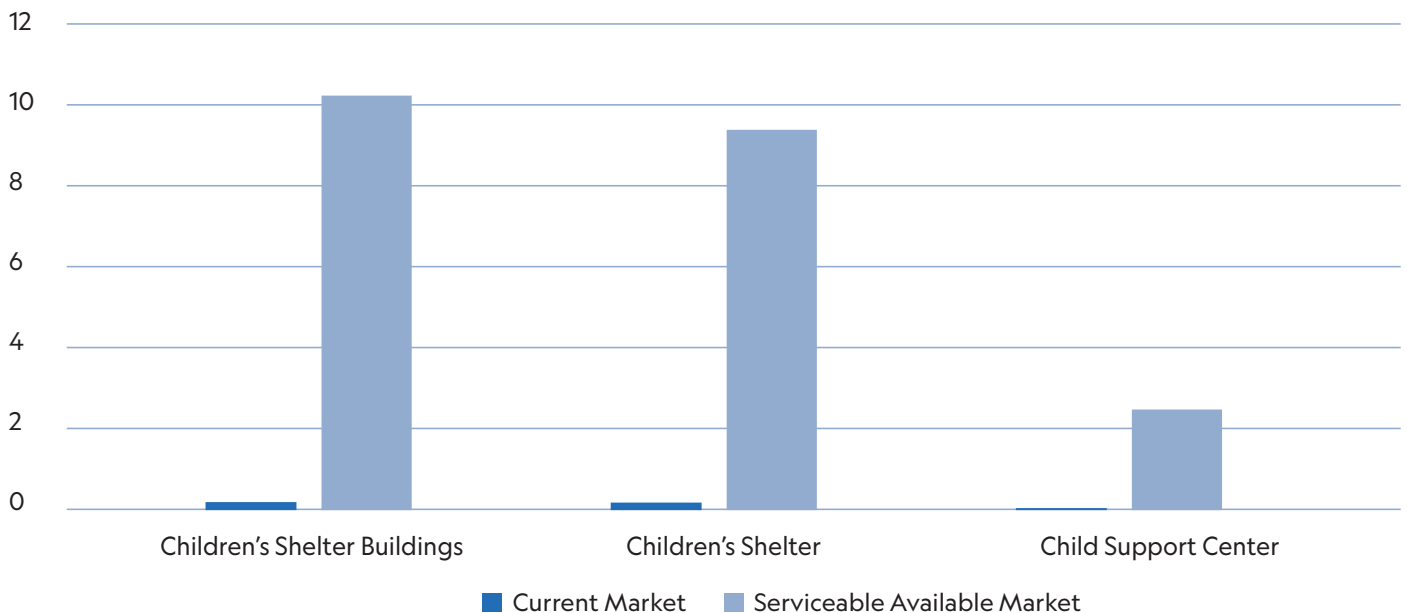
Source: Turkish Ministry of Family, Labor and Social Services.

**Chart 93: Number of Children Cared for in Social Services and Child Welfare Agency (Thousand People)**



Source: Consulta Research.

**Chart 94: Social Services and Child Welfare Market Size (Million Dollars)**



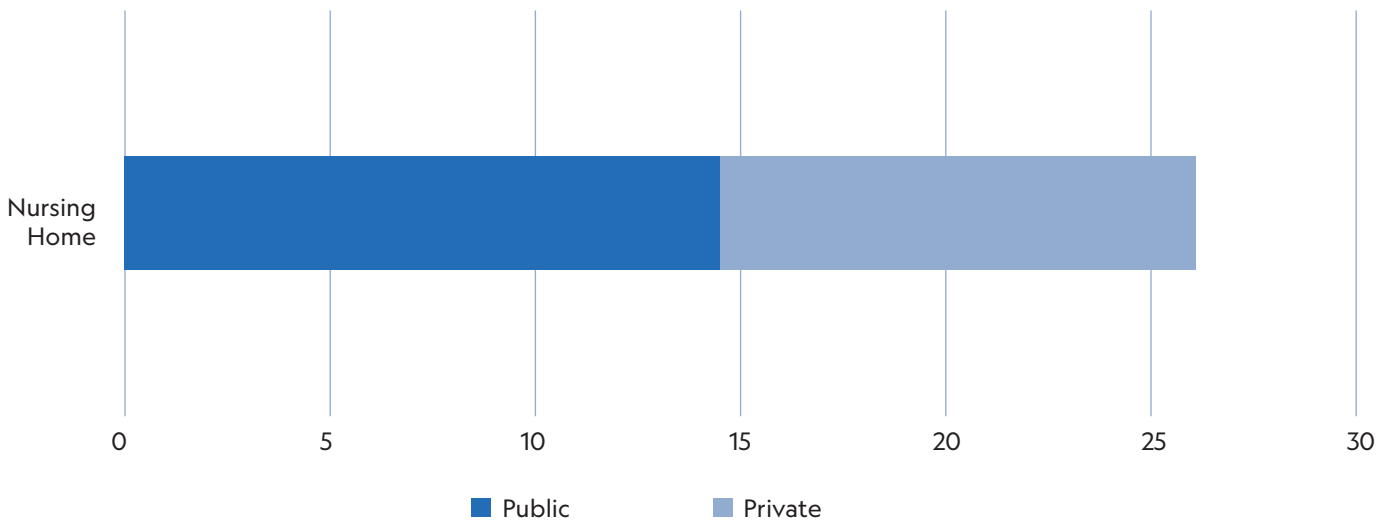
#### 2.4.1.10. Nursing Homes

Nursing homes are home to more than 27,000 elderly people in Türkiye. These are divided into two main groups as nursing homes belonging to the Ministry of Family and Social Services and other public institutions

(~16.700 persons) and private nursing homes (~10.600 persons) (Ministry of Family and Social Services, General Directorate of Disabled and Elderly Services, 2022).

Source: Turkish Ministry of Family, Labor and Social Services, General Directorate of Disabled and Elderly Services.

**Chart 95: Number of Elderly Cared for in Nursing Homes (Thousand People)**

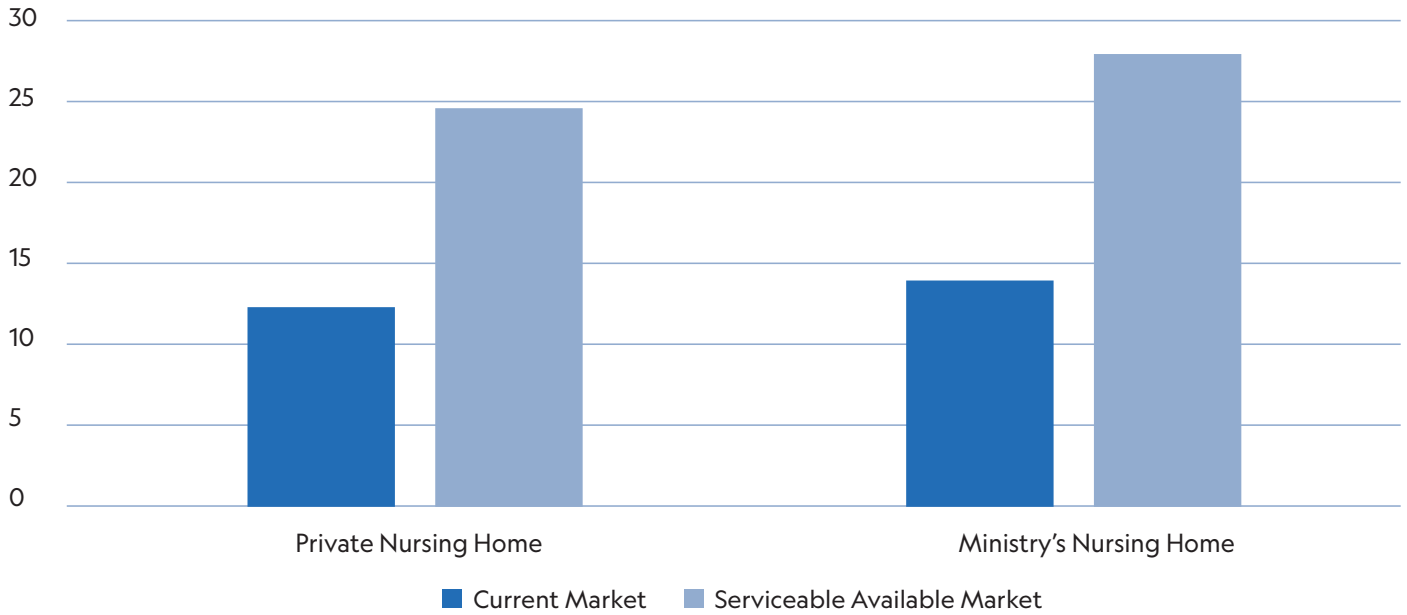


The vast majority of state-owned nursing homes have their own kitchens and have a company contracted for on-site production. In general, three main meals in the morning, lunch and evening, and two snacks are provided.

Almost all of the private nursing homes have their own cooks produce catering services in their own kitchens. Meal structures, on the other hand, consist of three main meals and two snacks, in the same way as state nursing homes. In this context, although the current market size of nursing homes is 25 million dollars, the potential figures point to 51 million dollars.

Source: Consulta Research.

**Chart 96: Nursing Homes Market Size (Million USD)**

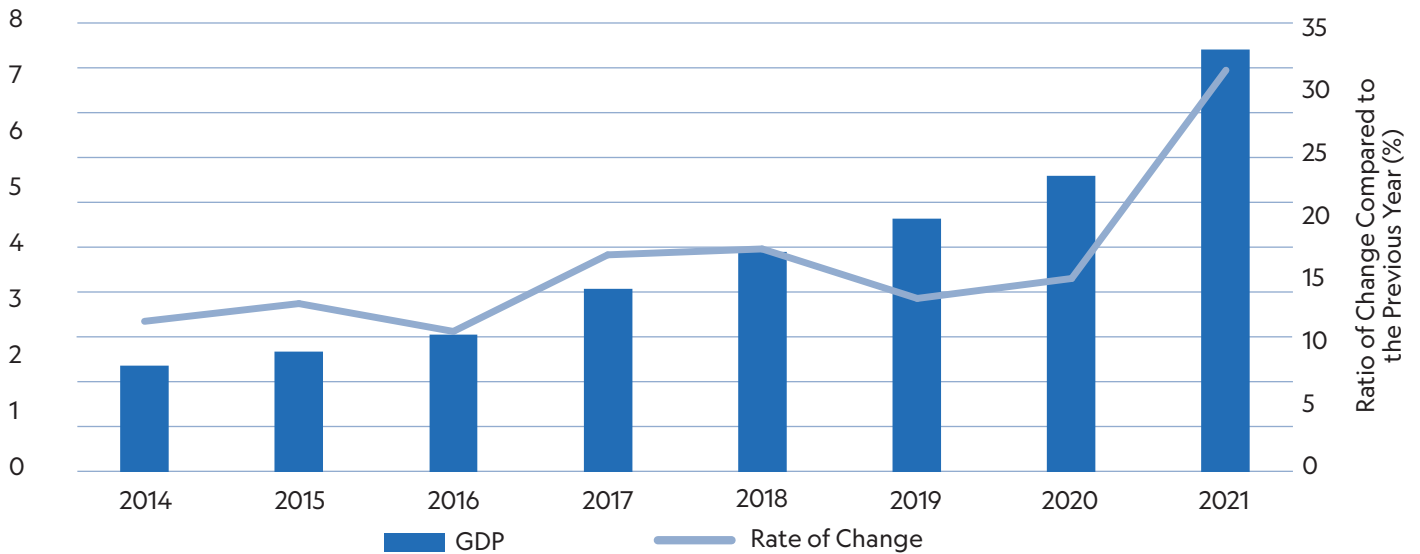


### 2.4.1.11. Economic Indicators

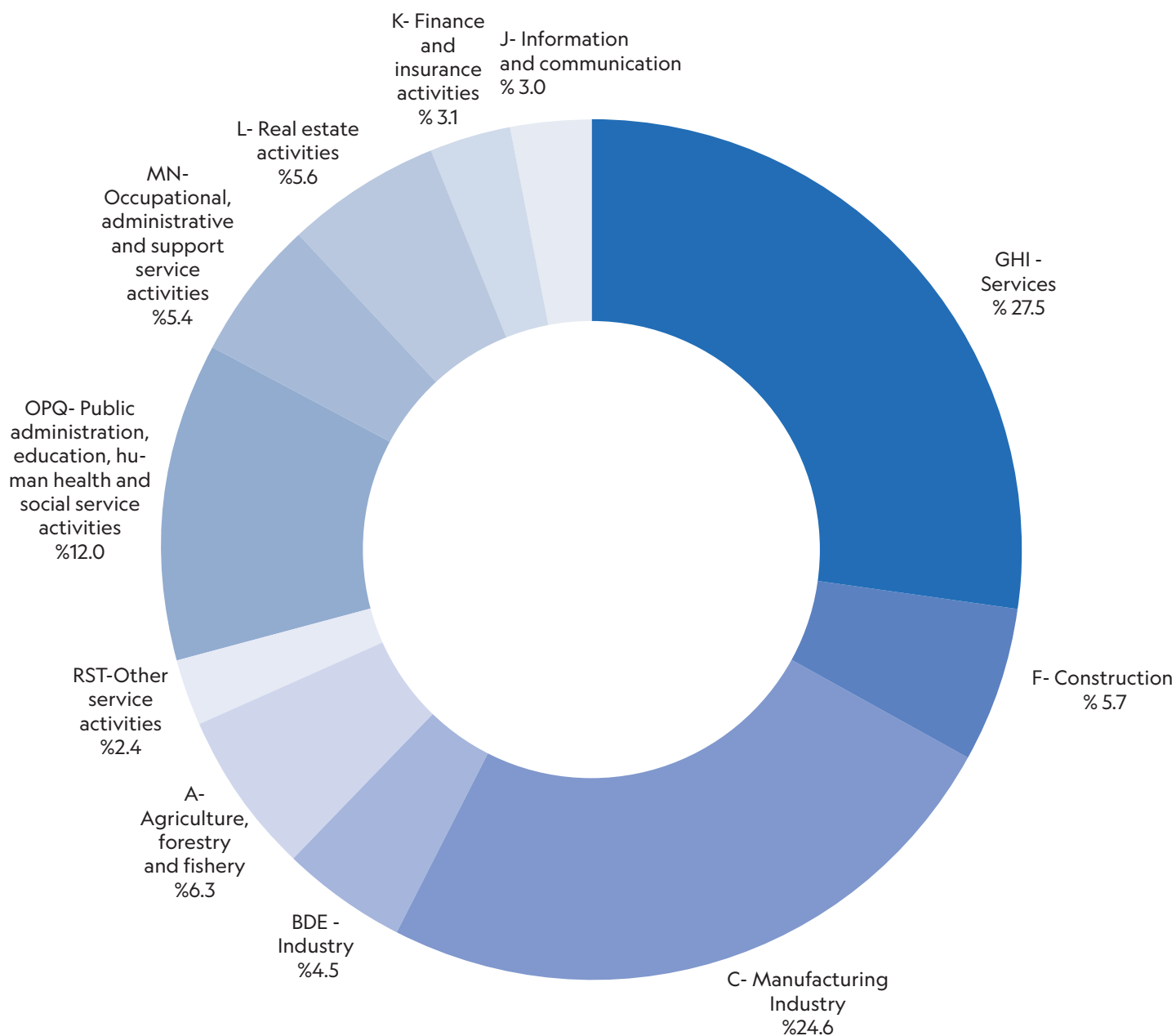
Gross Domestic Product, which exceeded 7.2 trillion with a real increase of 11% compared to the previous year, was calculated as 85,672 Turkish Liras per capita (TURKSTAT, 2022).

Source: TURKSTAT.

**Chart 97: Gross Domestic Product (Trillion TL)**



Looking at the sum of the sectors, it is seen that the Gross Domestic Product in 2021 has reached 6,448,919,287 (TURKSTAT, 2022). The percentage distribution of this figure in the branches of activity in the sector is given in Chart 102.

**Chart 98: Distribution of Branches of Activity in GDP**

### 2.5. The Place of the Sector in the National Development Plan

The Eleventh Development Plan, prepared by the Turkish Presidency of Strategy and Budget, covers the years 2019-2023. Industrial food sector was not included in the development plan. However, other sectors that directly and indirectly affect this sector are included. These areas are Agriculture, Energy, Logistics and Transport, Education, Employment and Working Life.

#### 2.5.1. Agriculture

Agriculture is a sector that the Industrial food sector is directly connected to. In this development plan, the title of agriculture includes other titles such as animal livestock and aquaculture. The main objective is to create an advanced and efficient agriculture sector that addresses infrastructure issues, increases international competitiveness by preserving the balance between supply and demand and ensuring adequate and balanced nutrition for the country's population, while also being environmentally, socially and economically sustainable (Presidency of Strategy and Budget, 2019).

Source: Presidency of the Republic of Türkiye Strategy and Budget Department.

**Table 26: National Development Plan Agricultural Targets**

<b>Agricultural Targets</b>	<b>2018</b>	<b>2023</b>
Land Consolidation Activity (Million Hectares, Cumulative)	8.2	8.5
Land Consolidation Area with Completed Registration (Million Hectares, Cumulative)	3.6	6.2
Net Agricultural Area Available for Irrigation (Million Hectares, Cumulative)	3.34	5.34
Area of In-field Pressure Irrigation System (Thousand Hectares, Annual)	40	200
Irrigation Rate (%)	64	68
Ratio of Agricultural Supports from the Central Government Budget to Agricultural Value Added (%)	6.8	7.2
Oilseed Production (Million Tons)	4.02	5.40
Production Amount of Medicinal and Aromatic Plants (Thousand Tons)	700	1.200
Ratio of Culture Breeds in Cattle (%)	49	56
Red Meat Production Amount (Million Tons)	1.12	1.7
Pasture Improvement and Development Area (Thousand Hectares, Cumulative)	68	518
Ratio of Forest Areas to Country Area (%)	29	30

#### 2.5.1.1. Expected Transformations in the Structure of the Sector

- Reaching the economic enterprise scale in the management of enterprises,
- Conservation of small family-owned enterprises and transformation into demand-oriented, market-oriented commercial enterprises,
- Increasing the young population in the agricultural sector by effectively managing human resources,
- Structural change in the use of inputs in plant production in terms of both reducing costs and of environmental and human health,

- Increasing use of organic fertilizers with biological-biotechnical control methods,

- Switch to closed system irrigation systems,

- In addition to the development of new seed varieties against climate change, local registration and protection, development by gaining added value.

#### 2.5.1.2. Expected Transformations in Supply and Demand

- Development of local products, geographical indications and medicinal and aromatic plant markets,
- Increasing demand for products produced with

production models sensitive to environment, human and animal health,

- Diversification of the usage areas of herbal products (derivative demand) and increase in price flexibility of the supply of herbal products, giving more importance to follow-up of herbal product markets,
- Increasing the share of foreign trade in the current trade volume of herbal products,
- It is expected that inventory management will

be planned to control risks depending on global developments.

### 2.5.2. Energy

Energy is one of the important inputs of the industrial food sector. The main objective is to ensure that energy supply is continuous, high quality, sustainable, safe and with bearable costs. (Presidency of Strategy and Budget, 2019)

Source: Presidency of Strategy and Budget.

**Table 27: National Development Plan Energy Targets**

Energy Targets	2018	2023
Primary Energy Demand (KTOE)	147,955	174,279
Electrical Energy Demand (TWh)	303.3	375.8
Primary Energy Consumption Per Capita (TOE/Person)	1.81	2.01
Electricity Energy Consumption per Person (kWh/Person)	3,698	4,324
Share of Natural Gas in Electricity Production (%)	29.85	20.70
Share of Renewable Resources in Electricity Production (%)	32.5	38.8
Amount of Electricity Produced from Domestic Resources (TWh)	150.0	219.5
Electricity Installed Power (MW)	88,551	109,474

### 2.5.3. Logistics and Transport

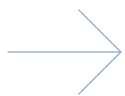
Logistics and transportation is one of the sectors that affect the price of the input materials of the industrial food sector, thus indirectly affecting it. The main objective is to take full advantage of Türkiye's geographical advantage by developing intermodal and multimodal applications, increasing the share of rail and

maritime transportation, establishing a fast, flexible, safe, reliable and integrated transportation system, reducing logistics costs, facilitating trade and increasing the competitiveness of our country (Presidency of Strategy and Budget, 2019).

Source: Presidency of Strategy and Budget.

**Table 28: National Development Plan Logistics and Transportation Targets**

Logistics and Transportation Targets	2018	2023
High Speed Train Length (km, Cumulative)	1,213	5,595
Share of Railway Passenger Transport in Total (Terrestrial. %)	1.3	3.8
Share of Double Track Railway Length in Total Main Line (%)	12.4	26.3
Share of Cargo Handled on Cabotage Line in Total Handling (%)	12.9	18.0
Total Number of Airport Passengers (Including Direct Transit) (Millions)	211	266
Divided Road Length (Including Highway) (km. Cumulative)	26,642	29,514
Highway Length (km, Cumulative)	2,842	3,779
HBM Paved Road Network (km, Cumulative)	25,215	31,478
Improved Accident Blackspot	70	75
Number of Fatalities in Traffic Accidents	6,675	4,900



## OUTLOOK OF THE SECTOR IN TÜRKİYE

### 2.5.4. Employment

The main objective is to provide decent job opportunities to all segments of the society and to increase the employment of groups that require special

policies, especially women and youth (Presidency of Strategy and Budget, 2019).

Source: Presidency of Strategy and Budget.

**Table 29: National Development Plan Employment Targets**

Employment Targets	2018	2023
Labor Force Participation Rate (Total) (%)	53.2	56.4
Labor Force Participation Rate (Women) (%)	34.2	38.5
Employment Rate (%)	47.4	50.8
Unemployment Rate (%)	11.0	9.9
Unemployment Rate. Young Population (%)	20.3	17.8
Part-Time Employee Ratio (%)	9.9	15.0
Informal Employment Rate (%)	33.4	28.5
Fatal Occupational Accident Rate (Per Hundred Thousand)	8.7	5.0

## 2.6. Legislation and Incentives

### 2.6.1. Legislation

According to the General Directorate of Food Control of the Ministry of Agriculture, 5,192 companies provide services in the Industrial Food sector in Türkiye. This number is stated as 18,000 in TURKSTAT data and 290,000 in the Food Safety Information System.

The industrial food industry is subject to the Veterinary Services, Plant Health, Food and Feed Law No. 5996 adopted in 2010. The purpose of this law is to ensure food and feed safety, public health, plant and animal health, animal breeding and welfare, consumer interests and protection of the environment.

The professions that industrial food, table d'hôte food, and appetizer production businesses are required to or may employ include: food engineers, agricultural engineers (food and dairy department), chemical engineers, chemists, dietitians, graduates of home economics university nutrition departments, and veterinarians (Official Gazette, 2010).

In the industrial food sector, a company must have a Business Registration Certificate and be inspected to officially produce food and present it for consumption. Food businesses can have the following 6 types of Business Registration Certificates within the scope of their activities:

- Food production businesses
- Warehouse, food sales and other retail businesses
- Collective consumption businesses
- Businesses within the scope of local marginal and limited activities
- Businesses operating under exceptional provisions
- Businesses producing bread, bread types and plain pita bread

Among these fields of activity, businesses that produce food, that operate in warehouses, food sales and other retail businesses, and that have Business Registration Certificate in the type of collective consumption businesses are directly included in the industrial food sector. Within the scope of the regulation on registration and approval of food businesses, the competent authority is the Provincial Directorate of the Ministry and, if designated, the District Directorate of the Ministry. All Registered/Approved food businesses are in the database of the Food Safety Information System on a web basis. (Official Gazette, 2010).

In the Regulatory Information System of the Presidency of the Republic of Türkiye, there are many and various legislations directly or indirectly related to food within

the scope of food legislation. All of these legislations can be viewed on the web. Among these legislations, the Food Hygiene Regulation, the Service Procurement Inspection and Acceptance Regulation and the Regulation on Official Controls of Food and Feed are important.

The General Directorate of Food and Control of the Ministry of Food, Agriculture and Livestock is responsible for inspecting the enterprises. Inspection types include secondary and tertiary inspection, annual control plan, routine follow-up, complaint, ALO 174 hotline, inspections with and without samples. Industrial food producers are closely related to regulations such as ISO 9000 Quality Management Standards, GMP-Good Manufacturing Practice, GHP-Good Hygienic Practice, GAP-Good Agricultural Practice, GMDP-Good Manufacturing and Distribution Practice and HACCP Hazard Analysis and Critical Control Points, ISO 22000 Food Safety Management System which cover all of them (Karahasanoğlu, 2010).

Industrial food producers are audited according to HACCP procedures. HACCP means Hazard Analysis Critical Control Points. The HACCP system is the most effective risk management system ever developed for food safety. The basic principle of this system is to identify the potential hazards that may occur in the final product and to implement protective measures to protect the product from these hazards, thus ensuring the quality of the product in terms of health, and therefore consumer safety (Karaali, 2003).

### 2.6.2. Quality Criteria

The applications of ISO 22000 Food Safety Quality Management System, which is one of the quality management systems standards applied for the food sector, in the organizations are of critical importance. This standard is a management systems standard that controls the food safety hazards of organizations that previously gathered HACCP (Hazard Analysis and Critical Control Points) standards into a single framework.

In addition, organizations may obtain ISO 14001 Environmental Management System, ISO 45001 Health and Safety Management System, ISO 10002 Customer Complaints Management System and ISO 50001 Energy Management System certificates according to their needs (Catering Türkiye, 2019).

ISO 22000:2005 is used throughout the food chain to ensure food safety from initial production to consumption.

It defines requirements for organizations that want to go beyond legal requirements on food safety. It ensures that the demands of consumers regarding food safety are met, food waste and cost losses are reduced, the working environment is improved, the problems encountered in customer inspections are minimized, and it reduces the risk of product recall. In short, it aims to provide customers with the same quality of continuous service.

The 'Halal' certificate, which is another important issue, is an approved document that is given as a result of an audit by a reputable, authorized and impartial institution confirming that it is produced in accordance with halal standards.

The condition of being halal in foods and compliance with health and quality requirements are among the conditions that must be fulfilled.

The Halal certification is a guarantee for the Muslim consumer that the product they will consume is acceptable and consumable. Halal foods are preferred by 2 billion Muslims around the world.

Quality Management Systems will not only ensure that the service is provided continuously and in accordance with customer expectations, but also a properly implemented management system will reduce the costs of organizations.

Apart from the standards mentioned above, the 5S Workplace Organization, which has been accepted in the world and is now even included in the standards, is another important issue. It is an application that is very easy to apply, but summarizes the organization of your workplace, which requires cultural change, in 5 steps. With this application, risks related to food can be reduced, waste can be prevented, costs can be reduced and more efficient work environments can be provided (Catering Türkiye, 2019).



# 3.

CHAPTER:  
SUGGESTIONS  
TO IMPROVE THE  
COMPETITIVENESS OF  
THE SECTOR IN TÜRKİYE

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The following SWOT Analysis, critical success factors and solution suggestions for the sector are the outputs of the online workshop held on Friday, July 1, 2022 with the participation of industry representatives. The list of participants of the said workshop is given at the end of the report.

### 3.1. SWOT Analysis

#### Strengths of the Sector

- Providing direct employment to 400,000 and indirect employment to 1.5-2 million people.
- It affects many sectors such as automotive, textile, footwear, chemistry, furniture, steel and porcelain.
- High job opportunities.
- The sector starts to open up to the world market with the strengthening of the qualified workforce and food know-how.
- The advantages gained by being a member of the service exporters union, which has developed in recent days.
- Difficulty of Türkiye to export food directly abroad in this sector, as many culturally different dishes are eaten. (For example, while carbohydrate-heavy hot meals are preferred in Türkiye, healthier food trends are preferred in Europe.)
- Problems during transfers due to their short shelf life.
- A serious weakness in Türkiye on the logistics side (food distribution). (There is a lack of a professional logistics company in Türkiye that concentrates only on food distribution and can be understood for all materials.)

#### Weaknesses of the Sector

- Due to the long contract periods in the sector, the constant increase in price cannot be reflected to the customer. (Contracts are generally executed annually and although it has been reduced to 3 months recently, this period is still long. The situation is easier for companies serving the private sector as they can also offer non-contractual price increases. However, when companies providing services to public institutions withdraw from the contract, the letter of guarantee becomes invalid and registered as a prohibited company.)
- Escalation times are short.
- Food inflation is not reflected in the shopping basket correctly.
- Unfair competition. (Teachers' houses and Vocational Technical Anatolian High Schools in provinces and districts are converted into kitchens and they prepare food for the places (both private and public) around them by using the state's resources such as electricity, water, natural gas, fuel creates unfair competition).
- High energy costs.
- Lack of qualified workers. (There is a shortage of trained and qualified personnel in the sector. (Qualified personnel mostly want to take place in the hotel management, restaurant management, etc. sectors.)
- No margin of error as it is a sector directly related to human health.
- When companies make cost studies, they compromise on quality, give prices according to their competitors. Ç has led to the bankruptcy and closure of many companies go bankrupt or close their companies when they get business at a loss and try to lower costs after they got it. For this reason, companies that get



## SUGGESTIONS TO IMPROVE THE COMPETITIVENESS OF THE SECTOR IN TÜRKİYE

business through tender from the government often close and change their names.)

- The necessity of having a serious financial power to hold on in the sector. (Asset investments (furnace, etc.), infrastructure costs, construction investments, etc.)

### Opportunities of the Sector

- Being open to growth as it is a sector that is constantly needed. (Especially when compared to other European countries, especially the UK, the packaged food business has a lot of growth potential in Türkiye.)
- The feasibility of the school meal project targeting 18 million students. (It is a project aiming at 18 million students and to have students eat one meal a day at school. If it can be realized, all the figures mentioned will be quadrupled. This means that the current market size of 6.5-7 billion dollars would exceed 20 billion dollars.)
- Providing food service to soldiers in the TAF as well as students. (The TAF already has its own kitchens and counters. If it is organized, the TAF, which currently receives only 35-40% of its food service from outside, can create a large market.)
- The industrial food market in Türkiye has not yet reached saturation. (Today, only 19% of the food consumed in Türkiye is industrial food. The industrial food market in Türkiye is not as saturated as it is in Europe.) There are many more opportunities in Türkiye.
- The increase in the industrial food sections in the markets with the investments made by the markets. (The development of the packaged food sector is one of the areas that can expand the market. For example, many companies such as Ülker and Migros invest in the industrial food sector. This will increase the industrial food aisles in the markets over time.)
- Increasing the development potential of the industrial food sector by other sectors that are constantly growing and developing.

### Threats to the Sector

- Widespread use of meal cards/tickets.
- More use of hybrid working style in offices.

(Some habits have changed in the last two years due to the COVID-19 pandemic. As people turn to hybrid work, the number of employees in offices has decreased, people started to eat less food in the office and sales numbers have decreased.)

### 3.2. Summarized Solution Suggestions

Increases in the Consumer Price Index (CPI) strain households and the purchasing power of individuals is gradually decreasing in the face of increasing inflation rates. In our country, where the cost of cooking at home has increased with the increase in market prices, affordable alternative menus are preferable for households with reduced purchasing power, and this creates an opportunity for industrial food companies. By establishing large industrial kitchens in densely populated cities, a suitable alternative can be created for households with reduced purchasing power. It may be possible to receive incentives from the state, both because such a project will contribute to economic growth by creating employment on a large scale, and it will bring vitality to the market with collective and contracted raw material purchases. Bulk raw material purchases and a possible incentive package from the government will make the production cost of the food much cheaper than a standard household. In this way, it will also contribute to the formation of a competitive market.

### 3.3. Supply Chain and Logistics

Contract catering means delivery of meals, food and beverages to the required venues by a professional service person on a contractual basis by a company or institution. In this system, which is called catering service systems, logistics studies, which have an important role in the food sector, are of great importance in terms of both food safety and cost and profit rates. And thus it needs to be addressed in detail. Currently, contract catering establishments benefit from a wide variety of suppliers specializing in four product lines. These product groups are as follows:

- Fresh products
- Refrigerated products
- Dry food
- Frozen products

The aforementioned suppliers deliver their products to different catering stores several times a week. The most important demands of catering companies from

suppliers that provide millions of services per year are listed as follows:

- Complete order delivery
- On time delivery
- High product quality
- High delivery frequency

To meet these demands, suppliers work more flexibly and use a multi-compartment distribution structure to maintain the quality of different product lines (fresh, refrigerated, dry, frozen).

In the catering system, the Supply Chain is defined as a network of interconnected organizations. These organizations deal with different processes and activities that generate value in the form of products and services for the final consumer upward and downward. Logistics chain modeling is a decisive factor in improving overall supply chain performance. It is not enough to optimize the actions of individual companies involved in the supply chain to find the highest performing structures. It is necessary to evaluate the supply chain as a whole in order to achieve better consumer value, increase revenues with lower total costs, while meeting various legal restrictions. The transition to supply chain management has two implications for logistics performance:

- Performance measurement should be defined according to the specific role of each organization in a supply chain.
- Performance should be evaluated for the entire supply chain, not just individual participants.

It would be appropriate to define each company as an actor in the supply chain of the industrial food sector. Here, there are four actors with different roles:

- Supplier
- Wholesaler
- Food service
- Consumer

Between these actors there is a flow of goods (downstream) and information flow (upstream). Catering stores place orders with wholesalers based on consumption estimates. Based on these orders, the wholesaler places orders with suppliers. There are three types of suppliers:

- Fresh and refrigerated product suppliers
- Dry food suppliers
- Frozen product suppliers

Wholesalers have distribution centers for fresh product, refrigerated product and dry food. All suppliers working in this field deliver their products to wholesalers' distribution centers for delivery to catering stores. However, fresh products and refrigerated products are delivered directly to catering stores by suppliers.

The industrial food sector's supply chain model relates processes in a network. There should be four important management variables in this distribution structure:

- Delivery frequency
- Delivery time
- Grouping of different product groups
- Timing (flow of information and goods)

### 3.3.1. Flow of Goods

#### 3.3.1.1. Supplier Activities in the Flow of Goods

Processing of incoming fruits and vegetables: Every day, at certain time intervals, primary producers supply fruit and vegetables to the supplier. Afterwards, the suppliers make the incoming products ready for delivery to the wholesalers.

Collecting order from fresh products, refrigerated products, dry food and frozen products: Each day, the previous day's orders are collected at the suppliers' separate distribution centers at a certain time.

#### 3.3.1.2. Wholesaler Activities in the Flow of Goods

**Transportation from suppliers to the distribution center:**

At certain and fixed times, the collected containers are loaded and delivered to the distribution center during a transport period, which can vary significantly depending on traffic congestion. Loading and unloading times are included in the shipping time.

**Collection of goods from various suppliers and route formation in the distribution center:**



## SUGGESTIONS TO IMPROVE THE COMPETITIVENESS OF THE SECTOR IN TÜRKİYE

Containers and trolleys from suppliers for dry foods and frozen products are loaded onto separate transport vehicles for each product group after arriving at the distribution center. For fresh products and refrigerated products, each container is collected directly on a transport vehicle within a certain period of time without being unloaded to the distribution center. After these vehicles are collected, they are separated according to their routes.

**Loading:** For each catering company, all product groups are combined and loaded onto transport vehicles within a fixed time frame. Each route is adjusted following the sequence of catering exits.

**Transportation from the distribution center to the catering exits:** It may take several hours to load all the loaded vehicles allocated for distribution. There may be deviations in delivery times due to driving time, distance between catering service exits and traffic congestion. When the loaded vehicles arrive at the exit of the catering company, the products are delivered to the allocated transport vehicles.

**Unloading:** When the transport vehicles leaving the suppliers arrive at a catering service exit, they are unloaded on the allocated transport vehicles. Due to different loading situations, unloading times may vary depending on the catering service exit. Unloading time depends on the number of transport vehicles and operational workload.

### 3.3.1.3. Activities of Food and Beverage Providers in the Flow of Goods

**Acceptance of goods at the exit of the catering service:** After the supplied products are received, they are unloaded directly within the specified time interval and in order. Unloading can be delayed depending on the operational workload.

**Inventory at the catering service exit:** When a container is unloaded, the items therein are now referred to as inventory. Inventories are fully or partially consumed at specified times each day, depending on the distribution frequency.

### 3.3.2. Flow of Information

#### 3.3.2.1. Activities of the Wholesaler in the Flow of Information

**Order entry and generation:** Catering company orders coming to the supplier are consolidated at a fixed time interval. These orders are forwarded to the wholesalers and the orders are calculated for a supplier. The quantity of these orders is the sum of the orders of the catering stores.

#### 3.3.2.2 Activities of Food and Beverage Providers in the Flow of Information

**Order generation:** Order quantities are calculated at specified times for each product group. The order amount may vary depending on external factors, such as weather conditions, irregular orders, holidays, etc.

**Packing registration reception:** The packaging paper required for the realization of the registration is delivered with the flow of goods (Cömert)

### 3.4. Workshop

A workshop was held on October 13, 2022 with the participation of sector representatives regarding the Industrial Food sector report. Topics discussed at the workshop included the followings:

- The focus should be on schools, and especially public schools. There is a serious potential in public schools.
- There is a serious future opportunity in the new generation of hot vacuum packaged food. Niche areas should be considered.
- The possibility that the employee is paid a meal and not spent within the scope of Industrial Food Sector (IFI) creates a serious risk for the growth of the sector.
- Collective purchases, government-supported and priority purchases, coalitions should be established for access to raw materials.

- The public sector is shrinking. Measures should be taken to prevent this situation.
- Healthy nutrition should be explained in detail in schools and other institutions. The user awareness studies should be provided. Negative elements of industrial package food should be explained.
- The industrial food sector should evolve into packaged food.
- There is a very serious market for special days/events. Organizers of special days will receive support from IFI at the point of meeting this food service.
- The advantages of IFI should be explained in detail to the organizations that do not receive IFI food service but provide their own food service.
- Within the scope of IFI, marketing and advertising activities in the form of public service announcements should be developed.
- Innovative projects should be developed within the scope of IFI (for example, food supply to markets). Standards must be maintained and followed. R&D studies should be done.
- Meal classification should be done in companies. Meals and weights should be standardized.
- Healthy capacity reports should be created by the state.
- With the establishment of the service exporters union, opportunities such as issuing invoices to companies with 100% foreign capital, the opportunity to use Eximbank loans at low prices, and the green passport facility will be utilized.
- It should be planned to increase productivity by reducing manpower and automating processes with technological investments in production.
- IFI's large firms can initiate a contracted farming initiative.
- Support should be given to the increase and/or creation of incentives by the State.
- Comparison of different initiatives abroad should be made.
- Measures should be taken to strengthen purchasing behavior.
- Employee problem (not finding a worker) creates a serious problem.
- An effective food waste planning should be done.
- Financial costs should be reduced.
- A different registration and licensing must be done within the scope of IFI.
- A healthy sector inventory will be created with a licensing within the scope of food production permit instead of a business registration certificate.
- A special team should be employed to identify unregistered food producers within the Provincial Directorate of Agriculture.
- Contracts should be drawn up based on the monthly price increase.

## Workshop Participants

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**Hüseyin Bozdağ**, Member of ICI Assembly

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**Cihangir Bayer**, Resport Catering

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