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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

ISSUES IN THE ANALYSIS AND ENHANCEMENT OF HOUSEHOLD CONSUMPTION

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GENERAL CHARACTERISTICS OF THE WORK

Relevance and Degree of Study of the Topic.
Raising the standard of living of the population is closely linked to solving the problems of a market economy based on socio-economic development strategies. This includes the effective organization of reforms, the substantiation of methods for utilizing potential, and the improvement of consumption-related management structures through targeted programs. In the modern era, addressing these issues reflects the economic achievements of each country, the evolving demand structure and tendencies of its population, and the specific characteristics of a modernized lifestyle. Therefore, in every country, priorities are identified and implemented to improve living standards, justify the population's demand system and methods of satisfying them, and evaluate the social status and significance of structural changes in the economy.

The study of food consumption among the population requires a unique methodological approach and research techniques due to its multifaceted nature and various constraints. Consumption volume—one of the main indicators of living standards—is measured by the volume of goods and services consumed, regardless of ownership and distribution form, and serves as a benchmark for economic growth and dynamics. The regulation of consumption based on certain targets and indicators, its acceptance as an efficiency criterion for consumer welfare, its function as a key element of the public reproduction system, and its role in marketing and in shaping supply-demand structures in market organization and management, all underscore its ongoing theoretical and practical significance.

In the current period, it is increasingly important to consider changes in the socio-demographic composition of the population within the structure of food consumption, as well as the influence of employment, quality of life, health, and progressive demand systems. This makes the topic a contemporary and relevant subject of research, especially in the context of a market economy. Consequently, a comprehensive approach to describing the consumption system, understanding its formation and dynamics, and applying new

appropriate methods and indicators is necessary. Evaluating the socio-economic essence and regulatory function of food consumption within the national economic system enhances the importance of this research.

In Azerbaijan, important steps have been taken within the framework of strategic policy documents such as the "Strategic Roadmap for the Production and Processing of Agricultural Products" (2016), "Azerbaijan 2030: National Priorities for Socio-Economic Development" (2021), and the "2022–2026 Socio-Economic Development Strategy." However, challenges concerning the regulation of the consumer market and ensuring food consumption among the population remain unresolved.

Numerous Azerbaijani scholars, including A.Aliyev, A.Alirzayev, A.Gasimov, Sh.Muradov, and M.Meybullayev, have conducted significant theoretical-methodological research into the role of consumption in living standards and economic growth. Other experts such as Z.A.Samadzadeh, E.A.Guliyev, B.Kh.Atashov, N.J.Gafarov, H.Allahverdiyev, S.Mehbaliyev, A.Nadirov, S.Salahov, N.Ahmadov, S.Safarov, and T.Guliyev have studied consumption from the perspective of labor, demography, governance, regional and sectoral economy, and agricultural market mechanisms.

Foreign researchers have also formed various economic schools focused on standards of living, consumption, and lifestyle. In recent years, scholars such as N.M.Rimashevskaya, Y.A.Shvyakov, T.F.Mayer, K.Mikulskiy, T.I.Zaslavskaya, V.Panova, Raisin, G.Volkova, and L.Migranova have examined the relationships between globalization, polarization, and consumption.

Nonetheless, consumption remains a complex socio-economic process that both influences and is influenced by other socio-economic factors. Its study as a multifaceted system of cause-and-effect relationships in today's context introduces new characteristics. The dissertation pays particular attention to relatively under-researched issues such as the measurement of consumption and its evaluation using various metrics and units. A systematic analysis of the key factors, sources, and principles underlying food consumption necessitates a scholarly, research-intensive approach.

Maximizing household consumption has become a central goal and criterion of modern economic systems, requiring new approaches, evaluations, and projections—hence defining the objectives and relevance of this dissertation.

Research Objective and Tasks.

The main objective of the research is to enhance social welfare and align economic development with population needs through a comprehensive and systematic analysis of household consumption. Based on this objective, the following tasks are identified:

- To investigate the multi-sectoral and multi-dimensional aspects of household consumption and justify complex analytical methods, while assessing the mutual influence between hierarchical structures and the economic system;
- To evaluate the role of key factors in the dynamics of household consumption, and to develop methodological approaches to modeling structural changes during shifts in economic growth, distribution, and pricing mechanisms;
- To diagnose the current state and structure of household consumption globally and analyze the development of consumer markets in various countries;
- To assess the current state of household consumption and the impact of socio-economic factors at the regional level in Azerbaijan;
- To justify the need for managing household consumption and to develop criteria and indicators for managing individual and interconnected factors affecting consumption in alignment with economic realities;
- To substantiate conceptual frameworks, principles, and mechanisms for forecasting household consumption and to identify key directions for future projections, establishing their scientific and material foundations;
- To develop proposals for regulating the consumer market in Azerbaijan based on successful international experiences;
- To offer recommendations for improving employment solutions to enhance consumption levels in various regions.

Object and Subject of the Study. The object of the study is the dynamics and characteristics of household consumption. The subject

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of the research is the analysis of the interactions and outcomes of socio-economic factors influencing consumption behavior.

Research Methods.

The study employs statistical analysis, classification, generalization, systems approach, comparative analysis, synthesis, mathematical-statistical methods, balance method, and other techniques.

Main Provisions for Defense.

The dissertation presents the following key points for defense:

- Fundamental factors and theoretical provisions determining the formation of household consumption;
- Indicators of consumption development nationwide and identified problems through regional diagnostics;
- Priority directions for regulating the consumer market;
- Ways to improve competition and anti-monopoly policies in the consumer market;
- Key strategies for increasing employment through the consumer market.

Scientific Innovation of the Research.

The scientific contributions of this study include:

- A systematic examination of the methodology for forming and forecasting household consumption, incorporating theoretical insights into influencing factors and new conceptual approaches;
- Identification of priority directions for improving competition and enhancing employment in the domestic consumer market;
- A macroeconomic and mesoeconomic (regional) assessment of current household consumption, revealing key regional development challenges;
- Forecasting quantitative and qualitative changes in consumer behavior influenced by external factors;
- Development of well-substantiated proposals for establishing an optimal competitive environment and consistent anti-monopoly policy for consumer market development.

Theoretical and Practical Significance.

The findings of the dissertation can serve as a scientific basis for evaluating household consumption behavior, assessing adequacy of

supply, and organizing production, distribution, and consumption segments in the real economy. Systematic analysis and forecasting of consumption can support the formulation of state policies aimed at improving living standards and aligning wages, pensions, and social protection measures with consumption needs. Additionally, the results can contribute to agricultural policy priorities related to food security.

Approval and Application of Research.

The main findings have been presented in 6 articles and discussed in three scientific-practical conferences. Scientific outcomes have been adopted for use by the Research Center of the Ministry of Labor and Social Protection of the Population.

Institution of Research Execution.

The dissertation was carried out at the Department of "Economics and Economic Relations" at Odlar Yurdu University.

Structure and Volume of the Dissertation.

The dissertation consists of an introduction (13,487 characters), three chapters (Chapter I – 79,037 characters; Chapter II – 36,747 characters; Chapter III – 56,132 characters), a conclusion and recommendations section (10,116 characters), and a reference list with 97 sources. It includes 21 tables, 11 diagrams, and 32 graphs. Excluding tables, figures, and references, the total length of the work is 211,098 characters.

MAIN CONTENT OF THE RESEARCH

In the introduction of the dissertation, the relevance and degree of study of the topic, the object and subject of the research, the purpose and objectives, methods, main theses submitted for defense, scientific novelty, theoretical and practical significance, approval and application, and the overall volume of the work are discussed.

Chapter I of the dissertation, titled "Study and Forecasting of Population Consumption in World Practice," provides a detailed analysis of the formation characteristics and factors of population consumption in various groups of countries, methods of forming population consumption, and principles of managing consumption factors in world practice.

This chapter examines and analyzes the global experience of studying and forecasting population consumption. It is noted that population consumption, being a socio-economic category and process, depends on a range of economic, socio-demographic, and political situations, which imparts specific features to its study.

As a final outcome and criterion for the efficient organization of socio-economic development, population consumption is formed as a key factor in the balanced and dynamic development of the reproduction system. Maximizing population consumption and managing its qualitative changes are expressed as a complex interrelation of various socio-economic mechanisms and serve as leading subjects of strategic and marketing research under market economy conditions.

In the Republic of Azerbaijan, which is developing through a market economy, the primary goal of the development strategy is the maximization of population consumption, as well as the production and management of per capita consumer goods and services in accordance with the needs of the population — matters of practical and current significance under modern conditions.

Population and consumption are closely interconnected. Population consumption, as a socio-economic category and process, depends on a number of economic, socio-demographic, and political situations, which gives its study unique characteristics. Population consumption is the main goal of socio-economic development and is formed and managed as a result of production, distribution, and exchange processes. Its main factors

and socio-economic consequences are interconnected in a system of direct and feedback links and are largely related to existing development trends and pragmatic regulatory policies.

The main factors of consumption include production and distribution relations, the current state of the market, and the government's influence on the consumption market. Therefore, consumption is managed by considering growth and structural changes, taking into account the socio-demographic composition and economic capabilities of the population. The primary objective is to maximize the volume and structure of consumption by evaluating the marginal utility effects of its main components. If the factors of consumption are expressed by actual production, the supply of goods and services, as well as purchasing power, then the utility function can be represented as follows:

$$U=F(Ts(t), D(t)) \tag{1}$$

The formation and development of consumption are closely related to the socio-economic development dynamics and transformation models of each region.

A comprehensive study of consumption involves categorizing the factors influencing its formation and dynamics into the following groups and evaluating the impact of each on consumption:

1. The volume of production and the variety and nomenclature of produced goods and services;
2. Imported products and services, and their role in meeting domestic demand;
3. The socio-demographic composition of the population and the structure of its needs for reproduction;
4. The efficiency of market organization and management mechanisms.

These factors serve as determinants of consumption demand. Schematically, these factors can be represented as follows (Figure 1):
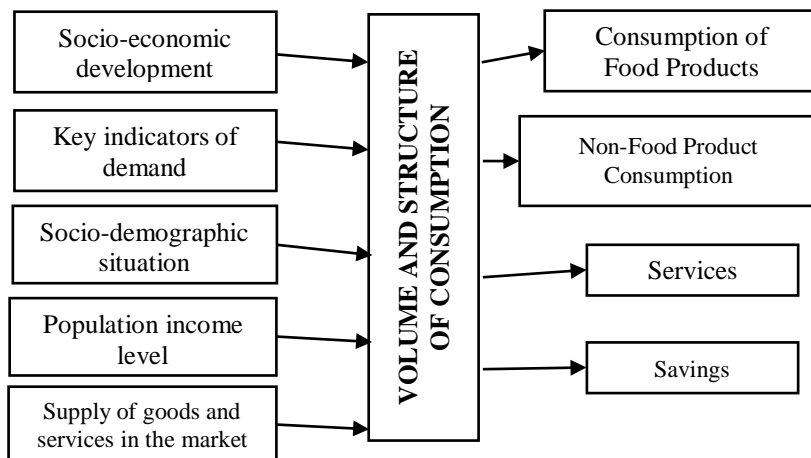
**Figure 1. Main Factors Influencing the Formation
of Household Consumption**

Source: Compiled by the author

The growth rate of the national economy of the Republic of Azerbaijan and the dynamics of key macroeconomic indicators provide a statistical basis for studying consumption related to both the population and production. The dynamics of economic development in the country—reflected in the growth of Gross Domestic Product (GDP), the volume of goods and services turnover necessary for consumption, population incomes, and real consumption levels—indicate that the real economy is consumption-oriented.

Moreover, the development indicators of living standards, population incomes, and consumption demonstrate a balanced growth dynamic, which confirms the effectiveness of the ongoing economic policy in addressing consumption demand (see Table 1).

Table 1.

Dynamics of factors affecting population consumption

	2010	2015	2020	2021	2022
Population size, thousand people	8997,6	9593	9974,0	10026,1	10063,3
Average annual number of economically active population, thousand people	4329,1	4671,6	4721,2	4831,1	4901,1
Nominal monetary income of the population, million manat	25607	41744,8	55754,1	57206,8	68914,6
Total expenditures of the population, million manat	19251,5	34963,4	49826,4	55379,1	65764,4
Actual final consumption expenditures of the population, million manat	16528,5	30595,3	43899,5	48507,3	57700,6
Gross Domestic Product (GDP), million manat	42465,0	54380	72578,1	93203,2	133825,8
Average monthly nominal wage of the population, manat	331,5	466,9	707,7	732,1	840,0
Consumer price index, %	105,7	104	102,8	106,7	113,9

*Source: Compiled by the author based on statistical reports of the State Statistical Committee.*

Table 1 presents the aggregated growth rates and the increase of key economic and social indicators that shape the consumption of the population. From a statistical analysis perspective, the growth of Gross Domestic Product (GDP) and its functional distribution between investment and consumption expenditures form the financial sources for population and production-related expenses. This, in turn, enhances the internal potential of each sector, its export capacity, and the role of state and local budgets in shaping the financial and material potential of legal and physical entities.

The second chapter of the dissertation, titled "Analysis and Evaluation of the Current State of Population Consumption Development in Azerbaijan," examines the current state of population consumption across regions, assesses the development of consumption in Azerbaijan, and explores the significant role of the emerging consumer market in ensuring food security in the country.

In the structure of population consumption by regions in Azerbaijan, food consumption holds particular importance and is considered one of

the main objects of study. It is well known that a significant portion of labor resources, one of the primary production factors in the agricultural sector, is ensured precisely through the activity of the regional population.

The per capita value of the consumer market in Azerbaijan amounted to 6,245 AZN. In Baku city, it reached 14,617 AZN, in the Nakhchivan Autonomous Republic 4,463 AZN, and in the Ganja-Dashkasan economic region, the per capita consumer market volume was 4,144 AZN (Graph 1).
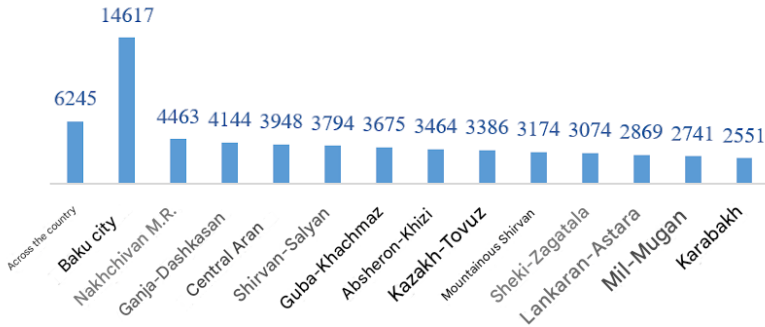

Graph 1. Per Capita Value of the Consumption Market by Economic Regions in 2022, manat

Source: Compiled based on data from the State Statistical Committee

Based on the analysis of the socio-economic status of regions and the current state of regional population consumption in Azerbaijan, overall, the Baku city, Nakhchivan Autonomous Republic, and Absheron-Khizi economic regions rank highest in terms of socio-economic indicators, including the number of employed and wage workers, wage levels, per capita annual income, and consumer market volume. However, in agrarian-oriented indicators—such as agricultural production output, agricultural employment, and other related metrics—the Gazakh-Tovuz, Guba-Khachmaz, Lankaran-Astara, and partially the Karabakh economic regions take the lead.

Many indicators analyzed in this research have been ranked by regions and summarized with a 10-point scoring system to present an overall rating. The regions with the highest evaluation across all noted socio-economic and consumption indicators were Gazakh-Tovuz (77 points), Baku city (73 points), and Guba-Khachmaz (70 points). It should

be noted, however, that this assessment can be expanded and deepened through further research considering a broader range of consumption indicators. In recent years, new development trends have been observed in Azerbaijan's agricultural sector. Between 2011 and 2021, the production of agricultural products in real terms increased by 46.8% (including a 53.0% increase in crop production and 42.5% increase in livestock products), while fishery production grew by 3.6%. The share of value added generated by agriculture, forestry, and fisheries in GDP was 5.1% in 2011 and increased to 5.9% in 2021. Overall, in 2021, agricultural production amounted to 9.2 billion AZN, of which 50.8% was livestock and 49.2% was crop production. More than 90% of the produced agricultural products belong to individual entrepreneurs, family farms, and household plots. During this year, the volume of value added created in the agrarian sector, i.e., the agricultural GDP, reached 5.5 billion AZN (Graph 2).
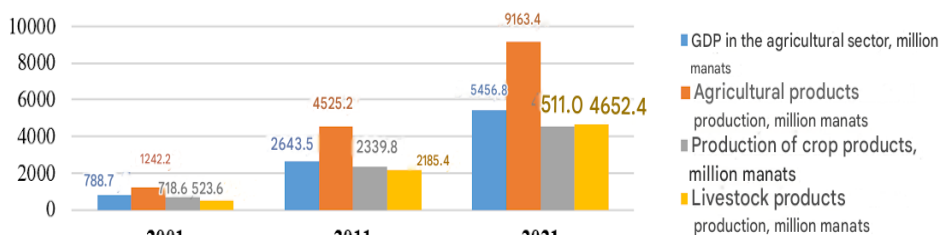
Graph 2. Comparative Indicators of Agricultural Production and Value Added Created in the Agricultural Sector in Azerbaijan, million AZN
Source: Compiled based on data from the State Statistical Committee

As a result of the successful economic policies implemented in the country, both dynamic and relative indicators have shown growth in all products except for meat and meat products, milk and dairy products, sugar, fish, and fish products.

The conducted research indicates that one of the key tasks in ensuring the country's food security and regulating the agro-food market is the protection of the interests of market participants—both consumers and agricultural producers. Under market conditions, the interests of agricultural producers in the mechanism of agro-food market regulation play a crucial role in ensuring food security, provided that their activities do not conflict with the interests of consumers.

Thus, it can be concluded that increasing the level of food self-sufficiency, enhancing food security, and eliminating income disparities between workers in the agricultural sector and those in other sectors of the national economy are among the main objectives in ensuring the country's food security and regulating the agro-food market.

When examining the issue of the country's food security level, it is advisable to consider the volume and structure of domestic production of key food products alongside the population's demand for these essential foodstuffs.

Statistical and calculated data indicate that in recent years, the sufficiency coefficient of consumption for key food products has increased for all products except butter, fish, and fish products compared to the 2013 level, and the food supply process, excluding per capita annual consumption of butter, has been in accordance with medical standards (Table 2).

Table 2. Sufficiency coefficient of consumption for major food product types during 2015-2022

№	Name	2013	2017	2019	2020	2021	2022
1.	All types of meat and meat products	106,0	118,7	129,5	129,5	130.8	133.6
2.	Milk and dairy products	106,1	102,4	106,0	110,9	109.0	111.6
3.	Eggs (pieces)	100,0	103,3	107,8	114,4	111.1	117.0
4.	Sugar and confectionery products	149,7	151,1	151,1	154,6	156.9	156.9
5.	Vegetable oils	110,2	163,3	164,3	156,1	95.9	85.7
6.	Fish and fish products	93,5	102,6	98,7	94,8	96.1	98.7
7.	Butter	70,1	50,7	49,2	46,7	56.7	41.2
8.	Bread and bakery products	98,8	98,6	99,6	101,8	100.0	97.1
9.	Potatoes	143,3	148,6	162,4	164,6	166.4	180.4
10.	All types of vegetables	111,3	107,3	131,6	138,4	142.6	143.8
11.	Fruits and berries	145,4	154,8	174,8	190,4	181.9	173.7

Source: Statistical Indicators of the Republic of Azerbaijan, 2015–2023

Between 2013 and 2022, household consumption expenditures consistently exceeded their incomes. For instance, in 2013, consumption expenditures surpassed incomes by 2.1%, increasing to 3.6% in 2018, then adjusting to 2.0% in 2019, 2.2% in 2020, and 1.7% in 2022. Based

on the data from Table 2.3.13, it is observed that the share of income derived from agriculture and self-employment declined over the period 2013–2020, while income from employment increased. Specifically, income from agriculture accounted for 13.9% of total income in 2013, decreasing to 10.7% in 2022, whereas income from self-employment rose from 25.7% in 2013 to 32.9% in 2022.

In terms of consumption expenditure structure, spending on essential food products increased during 2013–2022. Food consumption expenditures amounted to 92.9 manat (42.0% of total expenditures) in 2013, rising to 130.8 manat (43.4%) in 2020, and further to 147.0 manat (44.1%) in 2022. Over this period, expenditures on food products increased by 55.2 manat, or 60.1%, whereas total consumption expenditures grew by 112.0 manat, or 50.6%. Thus, the growth rate of food consumption expenditures outpaced the overall growth of consumption expenditures.

Based on the table's data, it can be concluded that between 2013 and 2022, household incomes increased by 112.9 manat, or 52.6%, while expenditures on food products rose by 55.2 manat, or 60.1%, exceeding income growth. The increase in food consumption expenditures accounted for 47.9% of the income growth during this period. This is primarily due to both an increase in per capita food consumption and rising food prices.

The data dynamics further suggest that the rate of food price increase outpaced income growth, causing households to allocate a larger share of their income to food products. Consequently, expenditures on other essential consumption needs were constrained, leading to difficulties in meeting non-food consumption demands. This situation negatively affects the overall social conditions.

Recently, positive dynamics in agricultural production have led to increased food independence for several product groups in the country, including cereals, potatoes, vegetable oils, and sugar **(Table 3).**

Table 3. The share of domestic agricultural products, raw materials, and agricultural inputs in the total volume of their resources (by product types), %

№	Product name	Food Security Doctrine Threshold, %	2015	2021	2022	To the limit of 2022 +;-
1.	Wheat	95	54,8	61.5	56.7	-38.3
2.	Potatoes	95	89,1	88.8	89.0	-6.0
3.	Vegetables (all types)	85	103,4	106.6	106.8	+21.8
4.	Fruits and berries	85	113,7	122.9	123.9	+38.9
5.	Milk and dairy products	90	84,3	84.8	83.3	-6.7
6.	Eggs	85	99,7	99.1	100.3	+15.3
7.	Flour (all types)	95	95,1	95.0	93.3	-1.7
8.	Sugar	80	192,9	100.7	103.9	+23.9
9.	Sugary confectionery products	80	17,8	34.2	30.6	-49.4
10.	Beef and beef products	85	91,8	91.9	93.0	+8.0
11.	Mutton and goat meat, meat products	85	99,3	98.2	97.0	+12.0
12.	Poultry and poultry products	85	98,6	79.6	78.3	-6.7
13.	Fish and fish products	80	77,6	78.2	76.7	-3.3
14.	Butter	80	69,2	66.7	62.0	-18.0
15.	Vegetable oil	80	60,5	73.2	66.7	-13.3
16.	Margarine	80	292,2	99.6	99.3	+19.3
17.	Pasta products	95	53,2	47.2	64.3	-30.7
18.	Tea	80	40,2	89.5	91.1	+11.1

Source: Statistical Indicators of Azerbaijan 2023

In the consumer market for agricultural and food products, a relatively stable situation has been maintained, which has been supported by the purchasing power of the population. This stability has mainly been ensured through the importation of agricultural products, raw materials, and food products, which account for nearly one-third of the total consumption of agricultural products.

In the structure of the population's consumption, the share of domestic products has not increased, and over the past six years, it has even decreased from 67.0% to 66.0%. The volume of food products and

agricultural raw material imports amounted to 2.7 billion dollars, which is the highest compared to all previous years.

As evident from the conducted calculations, the implementation of the measures encompassed by the aforementioned state programs aimed at enhancing food security in our country led to the following levels of demand coverage for key food products in 2022: 128.3% for meat and meat products, 109.8% for milk and dairy products, 113.2% for eggs, 152.9% for sugar and sugar products, 155.1% for vegetable oil, 94.8% for fish and fish products, 53.7% for butter, 163.0% for potatoes, 137.2% for all types of vegetables, and 188.7% for fruits and berries. Despite these efforts, the replacement of imports of key food products with domestically produced agricultural goods has not yet been fully achieved in our republic.

Table 4. Annual Consumption Expenditures on Food Products by the Country's Population

Years	Population of the Country (thousand persons)	Monthly Per Capita Consumption Expenditures on Food Products (AZN)	Monthly Consumption Expenditures on Food Products by the Population (thousand AZN)	Annual Consumption Expenditures on Food Products by the Population (million AZN)
2001	8114,3	21,7	76080,3	2113,0
2005	8447,4	35,7	301572,2	3618,9
2008	8779,9	65,2	572449,5	6869,4
2011	9111,1	82,4	750754,6	9009,1
2013	9356,5	91,8	858926,7	10307,1
2014	9477,1	95,6	906010,8	10872,1
2015	9593,0	99,4	953544,2	11442,5
2020	9898,1	119,7	118480,6	14217,6
2021	9981,3	123,8	1235684,9	14828,2
2022	10067,1	129,2	1300669,3	15608,0

Source: Statistical Indicators of Azerbaijan, 2023

As shown in the data of Table 4, during the period 2001–2022, there was an increase both in the total population of the country and in the per capita consumption expenditures on basic food products. Specifically, in 2022, the population increased by 24.0% compared to 2001, by 7.6% compared to 2013, and by 4.9% compared to 2015. However, during the same period, per capita consumption expenditures on food products rose 5.9 times compared to 2001, by 40.7% compared to 2013, and by 30.0%

compared to 2015, thus outpacing the growth rate of the population. The data presented in Table 4 illustrate a year-on-year upward trend in the population's consumption expenditures on food products. The main drivers of this growth are the increase in household incomes, the rising share of consumption expenditures within total income, as well as the rising prices of food products. Based on the data presented in Table 4, we will calculate the overall level of food security in the country for the years 2001–2022.

The calculations indicate that there has been a decline in the level of food security in the country in recent years. Specifically, the country's food security level was 92.6% in 2001, 99.3% in 2005, 96.2% in 2008, 102.2% in 2011, 101.2% in 2013, 100.6% in 2014, 100.5% in 2015, 95.6% in 2018, 93.3% in 2021, and 94.1% in 2022.

Table 5. Dynamics of the Overall Level of Food Security in the Republic of Azerbaijan, 2001–2022

Years	Food and Agricultural Products, million USD		Balance of Exports and Imports			Population's Food Expenditures (million AZN)	Overall Level of Food Security (%)
	İxrac	İdxal	million USD	Average Annual USD Exchange Rate	million Manat		
2001	21,4	188,4	167,0	0,9913	155,5	2113,0	92,6
2005	273,2	299,9	26,7	0,9459	25,2	3618,9	99,3
2008	476,4	789,6	319,2	0,8216	257,3	6869,4	96,2
2011	906,9	656,5	250,4	0,7897	-197,7	9009,1	102,2
2013	949,9	788,2	161,6	0,7845	-126,8	10307,1	101,2
2014	840,5	750,7	89,8	0,7844	-70,4	10872,1	100,6
2015	764,6	707,5	57,1	1,0261	-58,6	11442,5	100,5
2018	626,9	997,4	370,5	1,7000	629,9	14217,6	95,6
2021	677,4	1257,0	579,6	1,7000	985,3	14828,2	93,3
2022	689.1	1233,7	544,6	1,7000	925,8	15608,0	94,1

Source: Statistical Indicators of Azerbaijan, 2023

As shown by the data in Table 5, in recent years, the overall level of food security in the country decreased in 2022 compared to the period from 2005 to 2018. The primary reason for the decline in the overall level of food security during these years is the increase in the share of food expenditures within total consumption expenditures by the population, as well as the growth in the volume of agricultural and food product imports

to the country during this period. Specifically, in 2022, the volume of imported agricultural and food products increased by 4.1 times compared to 2005, by 56.5% compared to 2013, by 74.3% compared to 2015, and by 23.7% compared to 2018, while it decreased by 1.9% compared to 2019.

According to the calculated data, the level of food dependency for all types of meat and meat products is 84.3%, which is below the established threshold level of 85% for these products; for milk and dairy products, it is 84.1%, below the threshold level of 90%; for sugar and sugar products, it is 57.2%, below the threshold level of 80%; for vegetable oils, it is 48.7%, below the threshold level of 80%; and for butter, it is 65.5%, below the threshold level of 80%. This indicates that there is food dependency in ensuring food security for the population regarding these products. Based on the data from the table, we can state that the level of food dependency for flour and flour products is 100.0%, exceeding the threshold level of 90%; for potatoes, it is 21.0%, below the threshold level of 95%; for all vegetables, it is 127.9%, above the threshold level of 90%; and for fruits and berries, it is 128.5%, also above the threshold level of 90%. This situation indicates the absence of food dependency for these products.

Summarizing the analysis of the consumption market for agrarian-food products and the diagnosis of the main threats to food security, we can conclude that the key challenges facing the country's agrarian-food product consumption market in the modern period include:

- Significant pressure exerted by imported products on the country's agrarian-food market;
- Insufficient protection of the economic interests of agricultural producers;
- Lack of a systematic approach to state support for agricultural producers;
- Barriers faced by agricultural producers in accessing markets;
- Decline in the scientific and technical potential of agriculture and shortage of qualified personnel;
- High cost of credit resources for agriculture.

In Chapter III of the dissertation, titled "Improvement of Regulation of the Population Consumption Market," the regulation of the population

consumption market and its main directions, the formation of a competitive environment in the consumer market, anti-monopoly policies, and effective methods of employment growth in the consumer market have been studied.

State regulation of the food market is considered a direct sphere of economic impact on individuals and a factor of social stability in society. The balance of prices, quantity, quality, and mobility of goods and services is an essential component in assessing the population's quality of life. The food market holds a leading position in the regional economy due to its particular weight and role in ensuring the population's living standards. In other words, improving the efficiency of the food market regulation system is one of the main factors in ensuring reliable food supply to the country's population.

Regulating domestic demand in the food market should primarily focus on stimulating local production. The main goal of regulating food imports in our country is to implement advanced measures to prevent food shortages and eliminate potential deficits.

Compared to enterprises operating in other sectors of the economy, agricultural producers and agro-processing industries face higher risks, which affect their level of credit access. Specifically, the credit needs of the agrarian sector are shaped by the seasonality of production, dependence on natural and climatic conditions, the long-term nature of investment repayments, and other such characteristics. From this perspective, state support for credit provision in this sector is manifested through concessional lending. One of the key instruments with a stimulating effect under state regulation in the agrarian sector is concessional loans offered to entrepreneurs and farmers. Primarily, these instruments benefit agricultural entities that do not have their own or attracted funds, especially small farms. Internationally, agricultural credit institutions include not only banks but also specialized credit cooperatives, which play an important role in lending.

This internationally practiced approach could also be implemented in our country in the future, contributing to an increased level of meeting farmers' credit needs. Overall, it can be concluded that expanding the scope of concessional credit instruments can positively influence agrarian

development and, indirectly, the sustainable development of the population consumption market.

Regulation of the national economy, including the consumption market, involves the regulation of demand, supply, and prices, as well as ensuring free competition. In the current market economy conditions, regulation of the population consumption market includes the application of state orders, tax, customs, duties, and other fiscal instruments, investment activities, price systems, incentives, administrative restrictions, and other methods. On this basis, considering the following directions in regulating the population's food consumption market will stimulate dynamic development in the sector:

- Regulation of population employment and incomes;
- Implementation of sustainable social policies;
- Regulation of foreign economic relations and mutual concessions in foreign trade, transport tariffs, international certifications, licenses, and import-export operations;
- Improvement and expansion of the legal framework for proper organization of agrarian production and its integration with industry;
- Promotion of establishing consumer cooperatives among the population and the development of institutional and economic mechanisms;
- Increasing self-sufficiency indicators in agrarian products, promoting local producers to ensure food security, and establishing mechanisms to protect the domestic market from adverse external influences.

Methods for Improving the Competitive Environment and Anti-Monopoly Activities in the Consumer Market of Azerbaijan Have Been Identified.

In modern conditions, although a perfectly competitive consumer market is theoretically possible, it is quite difficult to observe this in practice. While markets may exhibit one or several characteristics of perfect competition, it is almost impossible to find a market where all such conditions are fulfilled. For instance, requirements such as advertising and transportation costs, as well as the timely provision of complete and

truthful information about products and markets to consumers, are often unmet. Consequently, this leads to unfair competition or even monopolistic competition, thereby disrupting competitive balance in the consumer market.

Free competition encompasses ongoing interactions and influences among market participants. The formation and evolution of competition began simultaneously with commodity production managed by property differentiation and division of labor. In modern times, as the demand of the population increases and commodity production expands, competition becomes a key driver of economic development. Market competition is a form of ongoing economic struggle, primarily motivated by the pursuit of more favorable conditions for the production and trade of goods and services. In other words, each market participant strives to attract more consumers and maximize profits, seeking to win the competition.

Although there have been institutional improvements in the anti-monopoly policy in recent years, delays and inefficiencies in policy implementation persist. This, in our view, stems from several factors, the most significant of which is the lack of comprehensive competition legislation — specifically, the development of a Competition Code [1]. Research shows that many European Union and developed countries possess positive experiences in this area. In Azerbaijan, work has begun on drafting this code, and we believe its prompt adoption will significantly advance effective anti-monopoly policy implementation.

It is important to emphasize that, as a result of competition formation in the consumer market:

1. Enterprises compete by offering more competitive, innovative products and services, which improves social welfare through a free competitive environment.
2. The market continuously develops, providing consumers with a diverse range of goods and services at reasonable prices.
3. Competition leads to an increase in the quantity and quality of goods and services.

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[1] Qalib T. Dövlət antiinhisar siyasətinin səmərəliliyinin artırılması yolları: / Sahib-karlığa və Bazar İqtisadiyyatının İnkişafına Yardım Fondu, - Bakı, - 2017. – 29 s.

4. Competition policy promotes fair market conditions, making business success based on merit; companies become more competitive to maximize profits.
5. Competition encourages entrepreneurial freedom and the right to start new businesses, facilitating the emergence of new companies.

For the development of the agrarian sector, improving the business environment aligns with the state's economic development strategy, which prioritizes producing high-quality, export-oriented, and competitive products. Current state policy supports creating a favorable business environment in agriculture and strengthening cooperation between entrepreneurs and the government.[2].

To increase the competitiveness of consumer market goods, a targeted state policy promoting free competition and creating a conducive environment is essential. Efficient and purposeful use of the country's resources and improving related mechanisms are necessary.

As Azerbaijan has favorable natural and climatic conditions and economic potential, it is appropriate to implement measures to align product quality with consumer preferences and international standards, enhancing the competitiveness of agricultural products in domestic and foreign markets. These measures include:
1. Developing incentive mechanisms such as concessional loans, tax, and customs privileges to establish processing enterprises with the capacity to produce competitive products.
2. Increasing agricultural production volume and quality through efficient use of natural resources and improving state support for family and rural farms.
3. Raising self-sufficiency in agricultural products and expanding farmers' market access in domestic markets.
4. Expanding export geography and volumes by improving the quality of agricultural and processed products through well-planned, systematic measures.
5. Granting customs privileges on imports of equipment needed for domestic production growth.

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[2] Qafarov N.C. Regionların inkişafında istehsal-iqtisadi əlaqələrin rolu // Beynəlxalq elmi-praktik konfransın materialları. Bakı: 22 noyabr 2014, - s.241-247

Violations of competition rules harm consumers, company competitiveness, and the economy as a whole. Therefore, adherence to free competition principles and government-established conditions is crucial. Targeted state policies are being implemented to increase competitiveness in the consumer market, yielding positive results.

The main directions for increasing employment in the national consumer market have been identified.

Sustainable, inclusive, and resilient economic growth, full and productive employment for all, and decent work promotion constitute one of the Sustainable Development Goals and encompass key issues prioritized in the social and employment policies of every state. Employment matters have always been central, and due to the recognition of the importance of employment, it is regarded as a fundamental component in several state-level documents adopted in our country.

Employment forms the primary source of income for the population in a market economy. Furthermore, employment influences the standard of living and indirectly shapes the political stance of the population. The income earned from employment, i.e., wages, also increases individuals' capacity to pay taxes, which constitutes a crucial indicator of the country's economic development. From this perspective, states should utilize all types of support mechanisms to ensure employment.

Alongside the number of employed individuals in the consumer market, the average monthly wage received by the population according to types of economic activity is also a matter of particular importance. This indicator is directly linked to the population's welfare level and sustainable development. The following figure illustrates a scheme depicting the formation of population welfare through the development of the consumer market (Figure 2):
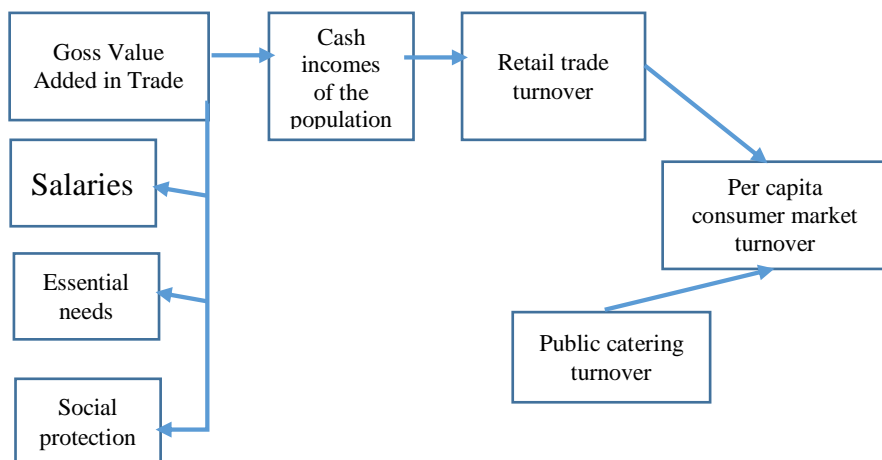
Figure 2. Scheme of Population Welfare Formation through the Consumer Market

Source: Беляевский И.К. Потребительский рынок как важнейший фактор благосостояния

As seen from this scheme, wages play an important role in the formation of the population's cash income and are also considered significant in the turnover of the consumer market.

In many rural areas and districts of Azerbaijan, the number of unemployed individuals of working age is considerably high due to the lack of employment opportunities and insufficient job availability. This problem has worsened since the dissolution of collective farms (kolkhozes). It is well-known that agriculture remains the primary sector of employment in the regions. International experience and studies indicate that efficient activity in the agricultural sector can only be achieved through collective or cooperative farms, or in the form of joint farmer partnerships. Considering that not every villager possesses agronomy, management, or economic skills, a farmer who cannot independently establish a productive enterprise or generate income, and who lacks other usable skills or professions, is often forced to migrate to cities or even abroad for profit. Consequently, the rural population and those employed in agriculture decrease, and arable land suitable for agriculture remains unused. As a result, although the country has the

capacity for self-sufficiency in agricultural products, a range of products of unknown origin are imported, causing economic and health issues related to food quality within society.

In our opinion, if the population of other regions remains in their permanent residences, finds nearby employment, and actively participates in regional development, this will be more beneficial for the overall development of the national economy. This would lead to an increase in domestic production, growth of the gross domestic product, and a gradual reduction in imports.

Research analyzing the identified problems and summarizing the results over time allows us to outline the following directions for improving the efficiency of employment in the consumer market of the country:

- Linking farmers with markets and providing effective information and advisory services;
- Promoting the creation of alternative employment sectors and job opportunities in the regions with state support;
- Restoring agro-industrial production sectors based on the principle of "clustering" to enhance regional sustainability;
- Improving the existing national agricultural subsidy mechanism by considering incentives for establishing agricultural cooperatives in the regions, especially in post-conflict zones, within the subsidy policy framework;
- Ensuring the economic integration of production facilities, including agricultural production, operating in liberated territories with industrial enterprises located in economically proximate areas;
- Providing agricultural producers in the regions with alternative employment opportunities during off-season periods.

CONCLUSION

The scientific results obtained in the research, which covers both theoretical and practical analysis of population consumption, are summarized in the following points:

- Economists, representatives of economic schools, and international organizations who have focused on the analysis of population consumption in their scientific works approach this topic from various perspectives. Some researchers analyze population consumption in relation to food security, others consider it in terms of satisfying material and spiritual needs, foreign trade theory, global food issues, the utility function, balancing aggregate demand and supply, improvement of living standards, and poverty levels.

- The conducted studies show that the increase in prices of food products, including agricultural products and means of production, is influenced by the pandemic, climate changes, economic and military-political factors, and uncertainties in the global market. Although the features of population consumption formation are similar or identical in some countries, production and distribution relations, market conjuncture, and the government's influence capabilities are considered as the main shaping factors.

- The system analysis methods of population consumption formation and forecasting, based on statistical-comparative evaluation of the current dynamics and its structure, are considered more sustainable when conceptual directions, norms, and impact mechanisms for achieving the goals are predicted. In this context, the system analysis of population consumption is evaluated by its share in the aggregate demand and supply system, its material form, and value structure. When segmenting the factors forming consumption by consumption characteristics, functional-normative approach models are developed as economic-mathematical models.

- The study of population consumption management by factors is determined by the priority of those factors. The impact of factors on the food market, non-food, and service sectors is measured by specific effectiveness and multiplier effects. Therefore, for each type of consumption and its volume change, specific or leading factors are

considered. The most adequate factor is the differentiation of monetary income, its relation to consumption volume, and the link between income characteristics and consumption norms. The forecasting factors of consumption are based on evaluating income forecasts and trends in price inflation levels.

- Over the last 20 years, the world population increased by 27%, reaching 7.99 billion in 2022, while the number of people inadequately supplied with reliable food decreased by 11.2% to approximately 735 million. Correspondingly, the share of the population suffering from food shortages dropped by 3.9 percentage points from 13.1% to 9.2% during these years.
- If expenditures on main food products in the daily diet exceed 52% of household income, food products are considered unaffordable in that country. According to the World Bank report for 2021, population access to reliable food is relatively good in countries such as North America, Western Europe, Russia, and Australia.
- Due to special quarantine regimes imposed by countries to control the global pandemic, activities of tourism, public catering, and other related sectors were suspended, resulting in a decline in their share during those years. However, in the post-pandemic period, easing restrictions led to a renewed growth trend. We believe that indirect socio-economic impacts of the pandemic, including deterioration of living standards, restricted access opportunities, reduced employment levels, difficulties in maintaining price stability, and other factors, have increased the number of people facing difficulties accessing reliable food.
- In the modern era, the value chain approach predominates in the development of agriculture and food production. It is no coincidence that, globally, the growth rate of production in the agricultural processing industry exceeds that of raw agricultural production; accordingly, the growth rate of agro-food trade significantly surpasses production growth, and processed products hold a larger share in global agro-food trade.
- In Azerbaijan, the consumption market volume has increased approximately 20 times over the last 20 years and about 2.6 times over the last 10 years, exceeding 63.0 billion manat in 2021. Approximately 82-83% of the consumption market consists of retail trade, while the remainder includes public catering and paid services. The per capita value

of the consumption market was 6245 manat. The share of final consumption expenditures in total expenditures varied between 87-91%, indicating that on average about 89% of household expenditures are spent on consumption.

- The country's agrarian policy, along with optimally increasing food self-sufficiency, comprehensively addresses the goals of improving rural welfare and increasing export potential, based on principles of sustainable agricultural development. Currently, self-sufficiency levels stand at 100% for fruits, vegetables, melons, and eggs; approximately 85-86% for meat and dairy products; about 80-82% for fish and fish products; approximately 90% for potatoes; and about 60% for wheat. Over the last 10 years, growth has been observed in most agricultural food products, except for potatoes, meat and meat products, cheese, and sugar.

- According to the analysis of social-economic status and current consumption situation in Azerbaijan's regions, Baku city, Nakhchivan Autonomous Republic, and Absheron-Khizi economic regions rank highest in terms of socio-economic indicators, including employed population, number of wage earners, wage levels, per capita annual income, and consumption market volume. However, in agrarian-oriented indicators such as agricultural product output and employment in the agrarian sector, the leading regions are Gazakh-Tovuz, Guba-Khachmaz, Lankaran-Astara, and partially Karabakh economic regions.

- At the national level, rankings of various socio-economic indicators by region and overall ratings based on a 10-point scale were calculated using a specific methodology. Among all socio-economic and consumption indicators, Gazakh-Tovuz, Baku city, and Guba-Khachmaz economic regions were distinguished.

The main content of the research is reflected in the following published works of the author:

1. Əliyeva V.S. - Əhali istehlakının iqtisadi-riyazi modellər sistmi vasitəsilə proqnozlaşdırılması - Odlar Yurdu Universitetinin Elmi və Pedaqoji Xəbərləri s219 – Bakı 2016
2. Əliyeva V.S. - Azərbaycan Respublikasında Əmtəə və Xidmət İsthlakının Marketinq Quruluşu - Milli Aviasiya Akademiyası Gənclərin Yaradıcı Potensialı Aviakosmik Məsələlərin Həllində Beynəlxalq İştirakla II Elmi-Pratiki Gənclər Konfransın Materialları

Fevral Məruzələri- s213 – Bakı 2017

3. Əliyeva V.S. - İqtisadi obyektlərin fəaliyyətinin struktur model vasitəsilə qiymətləndirilməsi - AMİU "Azərbaycanda iqtisadi islahatların həyatə keçirilməsinin aktual problemləri" mövzusunda Respublika Elmi-Praktik konfransın materialları – s195 – Bakı 2018

4. Алиева В.С. - Прогнозирование Потребления Населения – Конкурентоспособность в глобальном мире: экономика, наука, технологии НАУЧНЫЙ ЖУРНАЛ– стр 143 – Киров 2018

5. Алиева В.С. - Влияние Экономических Факторов На Потребление Населения Осы Влияния Экономики На Потребление Населения, А Также Изучены - Український Інститут Науково-Технічної Експертизи Та Інформації Наука Технології Інновації– стр 20 – Київ 2019

6. Əliyeva V.S. - Regionlarda əhali istehlakının müasir vəziyyətinin təhlili - Qərbi Kaspi Universiteti Elmi Xəbərlər İctimai və Texniki Elmlər Seriyası– s135 - Bakı 2023

7. Əliyeva V.S. - Antiinhisar iqtisadi siyasətin rəqabət mühitinə və istehlak bazarına təsiri istiqamətləri - Qərbi Kaspi Universiteti Elmi Xəbərlər İctimai və Texniki Elmlər Seriyası– s26 – Bakı 2023

8. Алиева В.С. - Анализ Текущего Состояния Потребления Населения Азербайджанской Республики - Сборник Статей По Материалам LXXIII Международной Научно-Практической Конференции Вопросы Управления И Экономики: Современное Состояние Актуальных Проблем стр 55 – Москва 2023

9. Aliyeva V.S. - Food Security Of The State: Current State And Prospects For Strengthening - Pahteı Proceedıngs Multıdıscıplınary Journal Volume 49 (06) Issue 02 2025 Cild 49 (06) Buraxılış 02- E-Issn: 2674-5224, Doı: 10.36962/ Bakı 2025

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