

IN THE NAME OF GOD

**Challenges of the Agriculture Chain in the Islamic Republic of Iran with the Development
of Sanctions**

**Reviewing the Agricultural Experience of the Islamic Republic of Iran, the European
Union, and the United States**



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Reviewing the Agricultural Experience of the Islamic Republic of Iran and the European Union

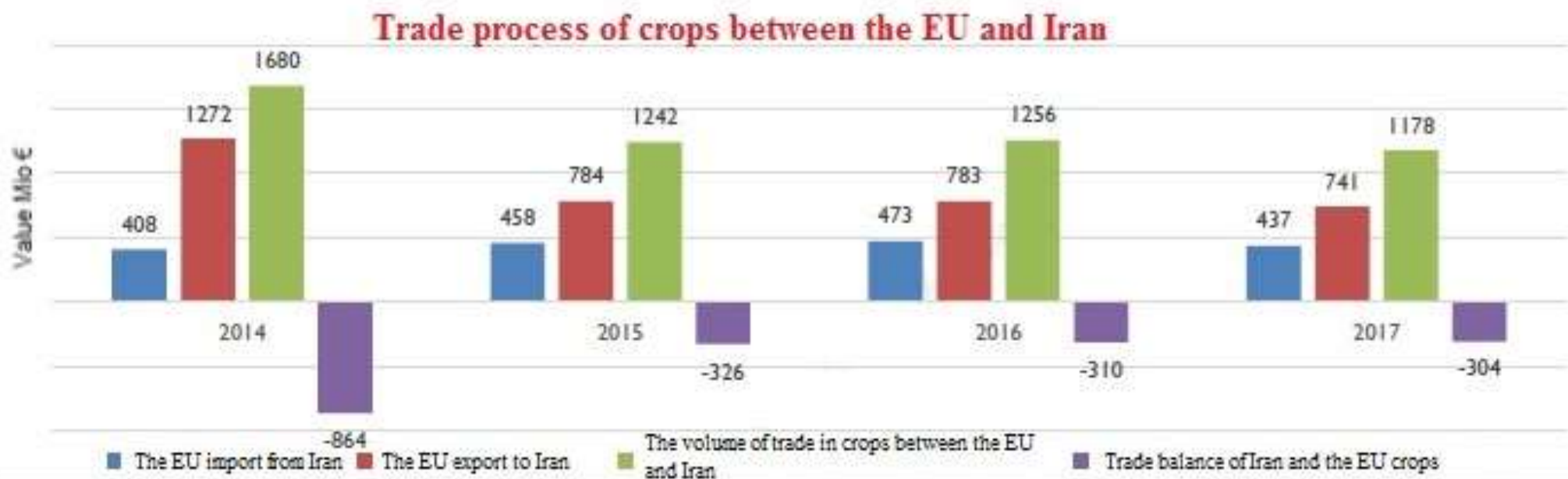
- In 2017, the EU imports of crops from Iran were €437 million (accounting for 4.3% share of the EU imports from Iran), which have decreased 7.7% from the same period of last year.
- In 2017, the EU exports to Iran were €741 million (accounting for 6.9% share of the EU exports to Iran), have decreased 5.3% from the same period of last year.
- Totally, 0.5% of the EU exports of crops are to Iran and 0.3% of EU imports of crops are from Iran.

Product Groups	Imports				Exports			
	Value Mio €	% Total	% Extra-EU	% Growth	Value Mio €	% Total	% Extra-EU	% Growth
Total	10,142	100.0	0.6	83.9	10,823	100.0	0.6	31.5
Primary products	9,473	93.4	1.7	98.8	1,083	10.0	0.4	28.1
- Agricultural products (Food (incl. Fish) & Raw Materials)	437	4.3	0.3	-7.7	741	6.9	0.5	-5.3
-- Food	335	3.3	0.3	-10.2	526	4.9	0.4	-15.7
--- of which Fish	3	0.0	0.0	30.2	6	0.1	0.1	15.3



Export and Import Process of Crops and Food Industries of the EU and Iran

- The volume of trade in crops between Iran and the EU has fallen €1.680 billion in 2014 to a less than €1.180 billion in 2017 (reduction of grains exports to Iran).
- The chart below shows the details of Iran and the EU trade of crops over the past four years.

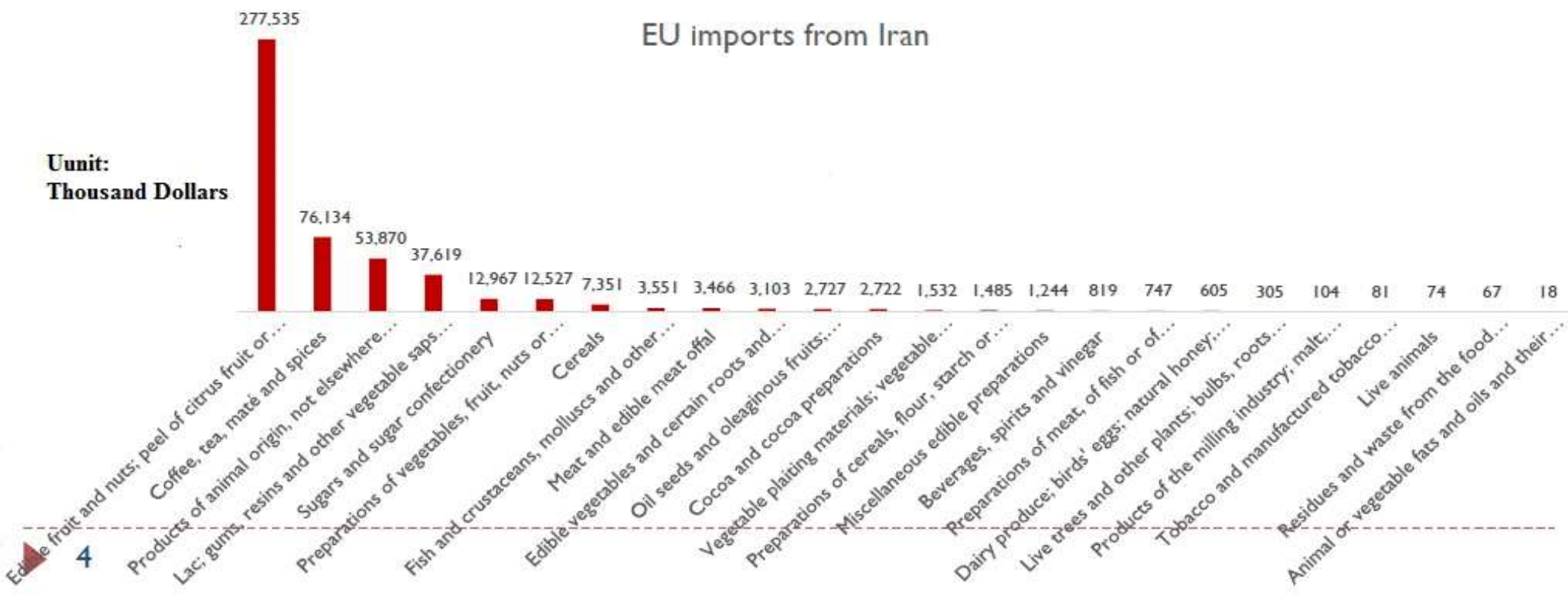


Product Groups	Imports Value Mio €				Exports Value Mio €			
	2014	2015	2016	2017	2014	2015	2016	2017
Total	1,158	1,254	5,513	10,142	6,430	6,471	8,233	10,823
Primary products	621	509	4,764	9,473	1,312	825	846	1,083
- Agricultural products (Food (incl. Fish) & Raw Materials)	408	458	473	437	1,274	784	783	741
- - Food	302	359	373	335	1,169	657	624	526
- - - of which Fish	5	2	3	3	2	3	5	6
- - Raw materials	106	100	100	102	105	127	158	215



Types of the EU Imports of Corps and Food Industries from Iran

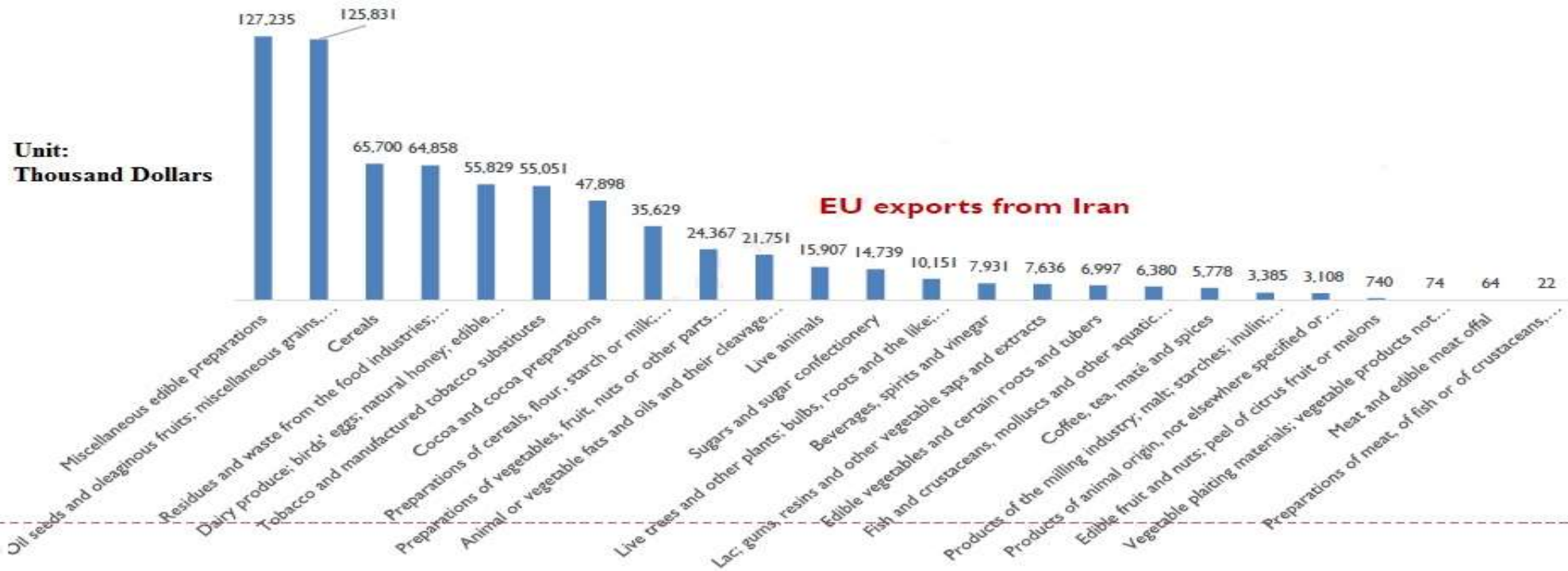
- The highest value of Iran exports to the EU in the crops group is dedicated to nuts and dried fruits valued more than \$277 million.
- In 2017, the EU has exported more than \$580 billion of crops and food industries to different countries of the world, about 40% of which included nuts, dried fruits, meat, fisheries products, beverages, and dairy.
- The figure below illustrates the value of Iran exports of corps and food industries to the EU based on the World Trade Center report in 2017.





Types of the EU Exports of Corps and Food Industries to Iran

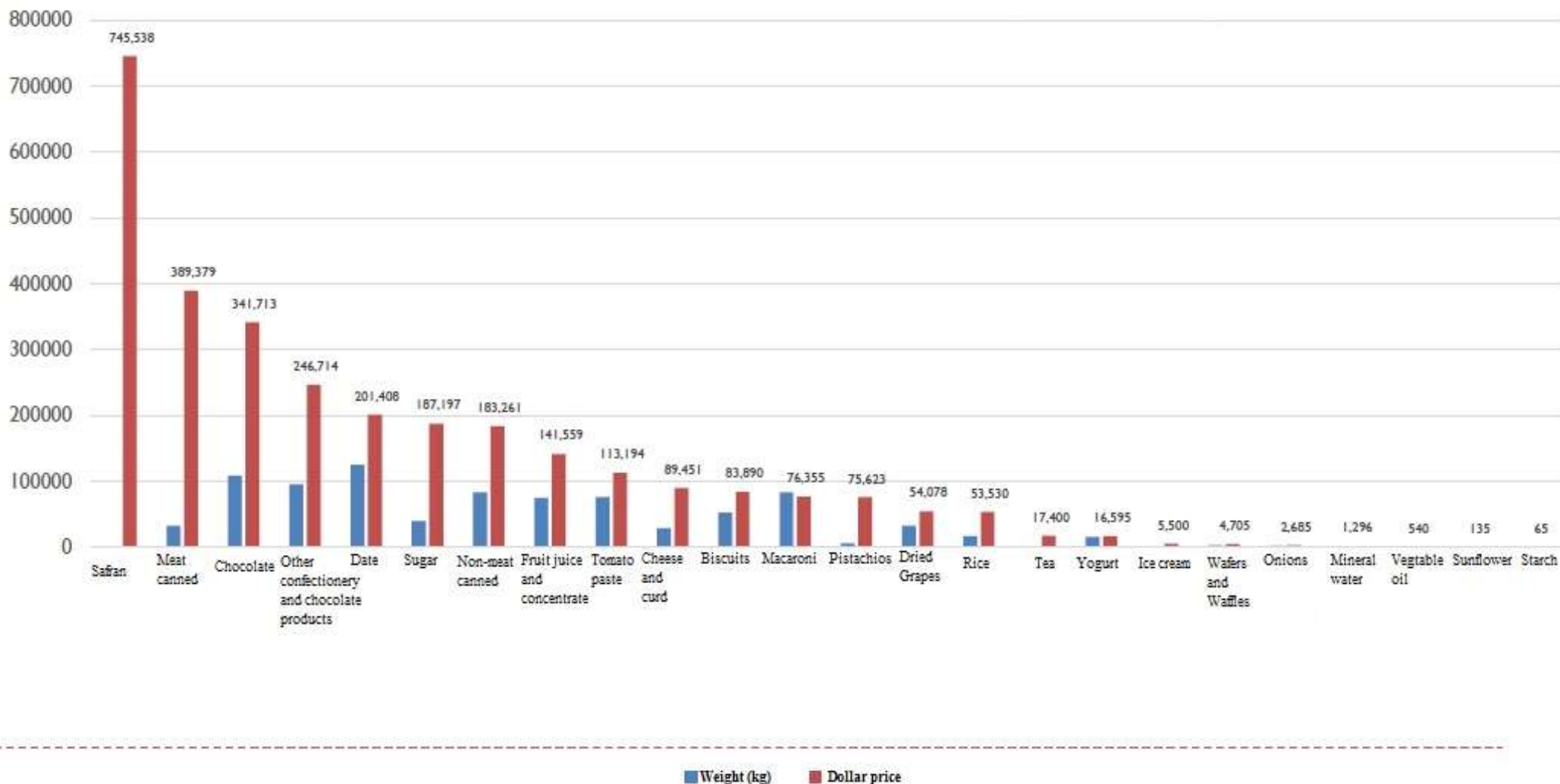
- The highest value of the EU exports to Iran in the crops group is dedicated to various other edible products valued at more than \$127 million, seeds and oilseeds valued about \$126 million, and grains valued about \$ 66 million, respectively (these three items accounted for 45% value of total EU exports of corps and food industries to Iran in 2017).
- In 2017, the EU has imported about \$590 billion of corps and food industries from different countries around the world, about 31% of which included beverages, dairy products, and meat.
- The figure below illustrates the value of Iran import of corps and food industries from the EU based on the World Trade Center report in 2017.





Crops and Food Industries Trade between Iran and USA (Export)

- In 2017, Iran exported more than 1.445 tons of corps valued at \$4,639,000 to the USA.
- Important items of Iran exports to the USA included:





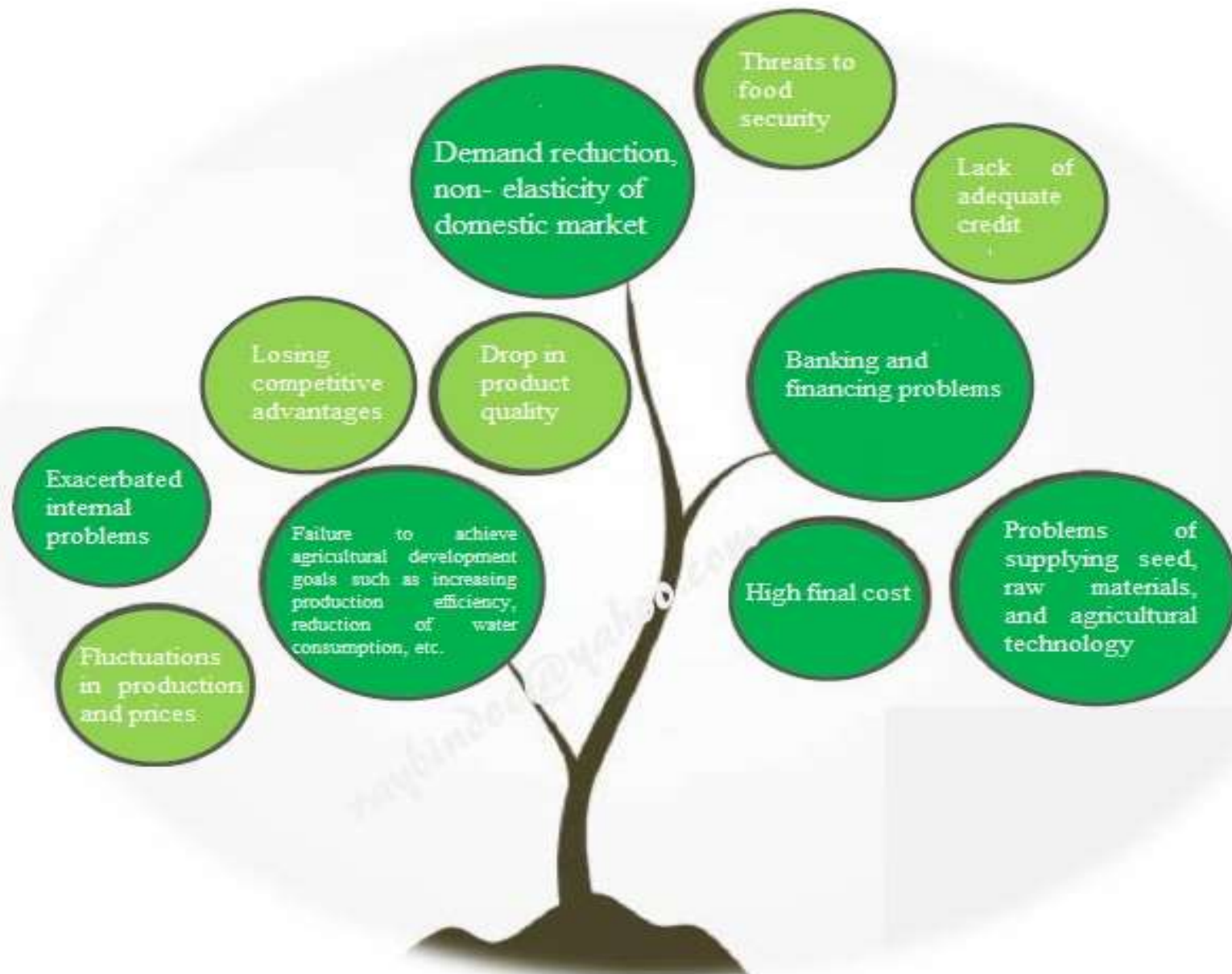
Crops and Food Industries Trade between Iran and USA (Import)

- In 2017, Iran imported more than 13,000 tons of crops valued at \$47.790.000 from the USA.
- Important items of Iran imports from the USA included:

Value share	Dollar value	Weight share	Weight (kg)	Description of tariffs	Tariffs
%5.68	2.673.251	%0.38	49.458	Infant milk powder in vacuum packages of 1 kg or less, containing %1.5 fat or less.	4021010
%0.28	130.450	%0.14	18.500	Whey and modified whey, concentrated whey, or added sugar or other sweetening ingredients	4041000
%0.01	3.242	%0.01	1.000	Seed	10019100
%1.08	507.813	%22.69	2.950.000	Barley other than seed	10039000
%0.57	267.126	%0.52	67.135	Corn seed	10051000
%1.96	921.436	%29.77	3.871.658	Livestock corn	10059010
%0.02	10.368	%0.02	2.880	Sorghum seed	10071000
%0.00	1.716	%0.00	156	Rape or Repeseed or Colza low erucic acid conola	12051000
%3.92	1.844.471	%29.35	3.816.280	Sunflower seeds, even chopped	12060000
%0.19	88.784	%0.09	12.000	Seeds of forage plants; Alfalfa seed	12092100
%0.19	87.328	%0.16	20.999	Grass spores for cultivation	12092910
%10.23	4.815.893	%1.40	182.436	Vegetable spores for cultivation	12099100
%1.46	688.277	%0.07	8.467	Other seed, fruit, and spores for cultivation, not elsewhere specified or included	12099900
%0.09	43.200	%0.07	8.640	Products or cans of tuna fish, Listaos, and Sarda (other than minced)	16041400
%0.11	52.001	%0.11	14.000	In terms of weight containing 99% or more lactose, called "Anhydre Lactose" calculated on the dry matter	17021100
%0.33	154.401	%0.27	35.660	Chocolate, etc., containing cocoa other than block, slab, and bar, not elsewhere specified or included, not elsewhere specified or included	18069000
%0.32	148.599	%0.58	76.000	Flour, mustard seed and prepared mustard	21033000
%0.75	352.723	%0.59	76.300	Textured protein	21061010
%0.04	20.805	%0.11	14.288	Textured soybean proteins	21061011
%66.53	31.320.163	%9.15	1.190.435	Nutritional supplements	21069080
%0.13	63.084	%0.02	2.862	Prepared aquatic feed	23099010
%5.95	2.802.740	%4.38	570.025	Prepared animal and poultry feed additives	23099030
%0.16	76.560	%0.11	14.000	Casein	35011000
%0.01	4.259	%0.00	500	Dextrin and other modified starches except drilling straches	35051090
%100	47.078.690	%100	13.004.079	Total	



Challenges of the Agricultural Chain in Iran with the Development of Sanctions



Challenges of the Food Industry with the Development of Sanctions

(Reviewing Previous Experiences)





Food Security

- GFSI Global Food Security Index is one of the key indicators to assess food security in a country.
- The index looks at issues beyond hunger and considers the main factors affecting food insecurity from three main aspects: affordability, accessibility, and food quality.

The affordability is measured by the following six indicators:

- Food consumption as a share of household expenses
- The ratio of population below the global poverty line
- GDP per capita production (at purchasing power parity (PPP))
- Agricultural import tariffs
- Presence of Food Safety Tour Programs
- Farmers' accessibility to financial resources

Affordability

Accessibility is measured by the following eight indicators:

- Supply adequacy and efficiency
- General expenditures on agricultural R&D
- Agricultural infrastructures
- Fluctuations of crops production
- The risk of political instability
- Corruption
- Urban absorption capacity
- Food waste

Accessibility

Food quality and safety are measured by the following five indicators:

- Diversity of dietary
- Nutrition standards
- Availability of micronutrients
- Quality of protein supplements
- Food safety

Food quality

Contrary to previous years, the GFSI 2017 introduces a fourth indicator called "natural resources and flexibility" with regard to the effects of climate change and the reduction of natural resources. In addition, rising sea levels arising from climate change, soil erosion, reduced production performance, and droughts and floods directly impact on crop production. Therefore, the 2017 index also includes the responses of countries to climate change and adjusts their rankings.



Food Security in Countries

2017 GFSI overall rankings table

Weighted total of all category scores (0-100 where 100=most favourable)

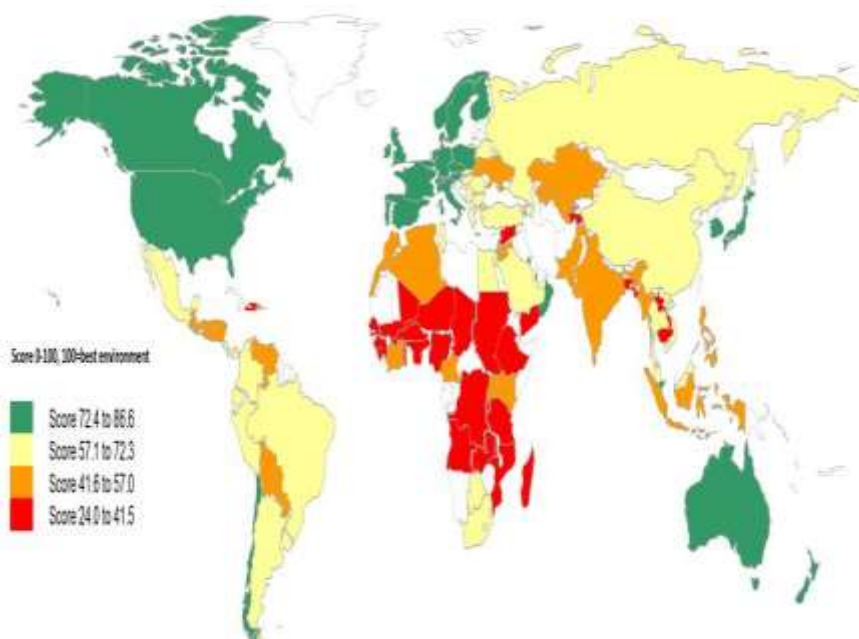
Rank		Score /100
1	Ireland	85.6
2	United States	84.6
3	United Kingdom	84.2
4	Singapore	84.0
5	Australia	83.3
6	Netherlands	82.8
7	Germany	82.5
8	France	82.3
9	Canada	82.2
10	Sweden	81.7
11	Austria	81.6
11	Switzerland	81.6
13	Norway	81.4
14	Finland	81.0
14	New Zealand	81.0
16	Denmark	80.3
17	Belgium	79.8
18	Japan	79.5
19	Israel	79.2
20	Portugal	79.0
21	Spain	78.1
22	Italy	75.9
23	Czech Republic	75.8
24	Chile	74.7
24	South Korea	74.7
26	Kuwait	74.6
27	Poland	74.1
28	Oman	73.9
29	Qatar	73.3
30	Hungary	72.2
31	Greece	71.9
32	Saudi Arabia	71.0
33	United Arab Emirates	70.9
34	Slovakia	70.0
35	Uruguay	69.7
36	Costa Rica	69.3
37	Bahrain	68.6
38	Brazil	67.7

Rank		Score /100
38	Romania	67.7
40	Argentina	67.3
41	Malaysia	66.2
41	Russia	66.2
43	Mexico	65.8
44	South Africa	64.0
45	China	63.7
46	Belarus	63.0
47	Bulgaria	62.9
48	Panama	62.5
49	Turkey	61.1
50	Serbia	60.6
51	Colombia	60.1
52	Botswana	59.4
53	Peru	59.2
54	Tunisia	58.8
55	Jordan	58.3
55	Thailand	58.3
57	Azerbaijan	57.8
58	Egypt	56.6
59	Paraguay	56.5
60	Kazakhstan	56.0
61	Ecuador	55.2
62	Dominican Republic	54.8
63	Ukraine	54.1
64	Vietnam	54.0
65	El Salvador	53.1
66	Sri Lanka	53.0
67	Morocco	52.8
68	Algeria	51.5
69	Bolivia	51.3
69	Indonesia	51.3
71	Venezuela	50.2
72	Nicaragua	50.0
73	Guatemala	49.6
74	India	48.9
75	Honduras	48.6
76	Ghana	47.9

Rank		Score /100
77	Pakistan	47.8
78	Uzbekistan	47.5
79	Philippines	47.3
80	Myanmar	44.8
81	Nepal	44.5
82	Senegal	44.2
83	Cambodia	43.3
83	Uganda	43.3
85	Cote d'Ivoire	42.5
86	Kenya	42.2
87	Cameroon	41.6
88	Rwanda	39.8
89	Bangladesh	39.7
90	Benin	39.6
91	Mali	39.4
92	Nigeria	38.4
93	Togo	37.2
94	Tajikistan	35.9
95	Tanzania	35.4
96	Sudan	34.8
97	Guinea	34.0
98	Mozambique	33.7
99	Ethiopia	33.3
99	Syria	33.3
101	Angola	33.2
102	Burkina Faso	33.1
102	Laos	33.1
104	Zambia	32.4
105	Malawi	31.3
106	Niger	29.5
107	Haiti	29.1
108	Yemen	28.8
109	Sierra Leone	28.7
110	Chad	28.3
111	Madagascar	27.2
112	Congo (Dem. Rep.)	25.5
113	Burundi	25.1

Among the neighboring countries of Iran, Kuwait ranked 26th, Oman ranked 28th, Qatar ranked 29th, Saudi Arabia ranked 32nd, Emirates ranked 33rd, Russia ranked 41st, Turkey ranked 49th, Kazakhstan ranked 60th, Pakistan ranked 77th, Uzbekistan ranked 78th, and Yemen ranked 108th out of 113 surveyed countries.

OVERALL SCORE





Food Security in Countries- Changes of 2017 Compared to 2016

Score changes

(Net change in overall score, 2017 v 2016)

Score improved
Score declined

Score change	
Sierra Leone	+2.6
Paraguay	+2.0
Ecuador	+1.4
Bangladesh	+1.3
Nicaragua	+1.3
Ghana	+1.2
Colombia	+1.1
Jordan	+1.1
Peru	+1.1
Finland	+0.9
El Salvador	+0.8
Togo	+0.8
Czech Republic	+0.7
Pakistan	+0.7
Kazakhstan	+0.6
Slovakia	+0.6
Tunisia	+0.6
Costa Rica	+0.5
Haiti	+0.5
Hungary	+0.5
Laos	+0.4
Mozambique	+0.4
Japan	+0.3
Azerbaijan	+0.2
Botswana	+0.2
Burkina Faso	+0.2
Indonesia	+0.2
Mexico	+0.2
Oman	+0.2

Score change	
Poland	+0.2
South Africa	+0.2
United Arab Emirates	+0.2
United Kingdom	+0.2
Cote d'Ivoire	+0.1
Kuwait	+0.1
Nepal	+0.1
Norway	+0.1
Cambodia	0.0
Nigeria	0.0
Tajikistan	0.0
Cameroon	-0.1
Greece	-0.1
Australia	-0.2
Brazil	-0.2
Chile	-0.2
Ireland	-0.2
Senegal	-0.2
Serbia	-0.2
Denmark	-0.3
Sweden	-0.3
Belarus	-0.4
Russia	-0.4
Belgium	-0.5
Benin	-0.5
Guatemala	-0.5
New Zealand	-0.5
Thailand	-0.5

Score change	
Turkey	-0.5
Bulgaria	-0.6
Canada	-0.6
Rwanda	-0.6
Singapore	-0.6
United States	-0.6
Argentina	-0.7
Austria	-0.7
Guinea	-0.7
Italy	-0.7
Morocco	-0.7
Myanmar	-0.7
Uruguay	-0.7
Bolivia	-0.8
Germany	-0.8
Netherlands	-0.8
Saudi Arabia	-0.8
South Korea	-0.8
Switzerland	-0.8
France	-0.9
India	-0.9
Panama	-0.9
Spain	-0.9
Sri Lanka	-0.9
Israel	-1.0
Kenya	-1.0
Philippines	-1.0
Sudan	-1.1
Tanzania	-1.1

Score change	
Uganda	-1.1
China	-1.2
Egypt	-1.2
Uzbekistan	-1.2
Bahrain	-1.3
Portugal	-1.3
Syria	-1.3
Romania	-1.4
Honduras	-1.6
Burundi	-1.7
Niger	-1.7
Ukraine	-2.1
Dominican Republic	-2.2
Malawi	-2.2
Vietnam	-2.2
Mali	-2.3
Algeria	-2.7
Chad	-3.0
Zambia	-3.1
Angola	-3.2
Malaysia	-3.2
Ethiopia	-3.3
Yemen	-3.4
Congo (Dem. Rep.)	-3.8
Madagascar	-4.7
Qatar	-6.0
Venezuela	-7.1

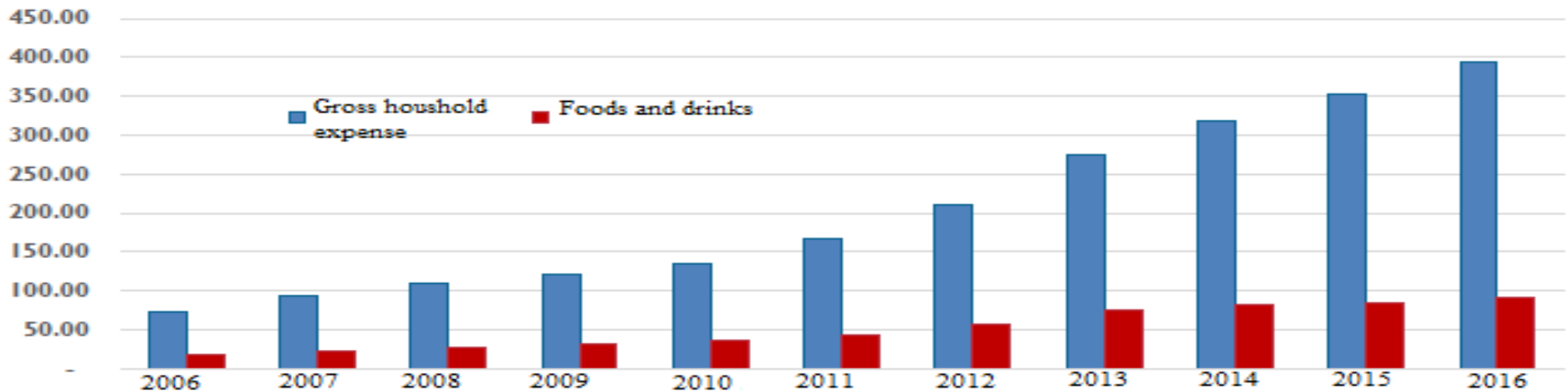
- Among the neighboring countries of Iran, the ranking of Azerbaijan, Kazakhstan, Pakistan, Oman, UAE, and Kuwait has improved.
- The ranking of some countries such as Tajikistan has remained unchanged.
- The status of the food security index among the neighboring countries of Iran, the ranking of Qatar, Yemen, Turkey and Saudi Arabia has fallen in 2017 to 2016.



Food Security- Affordability and Household Cost of Food

- The gross cost of every urban household has increased from 72.550 million and 550 thousand Rials in 2006 to 393 million and 5 thousand Rials in 2016. In other words, the household expenses has increased by 5.4 times during this period. The household cost of food has increased from 18 million 586 thousand Rials in 2006 to 89 million and 975 thousand Rials in 2016. In other words, household cost of food has increased by only 4.8 times lower than the total household expense during this period.

Households were 26.6% having no one employed, 56.4% having one employed, 14.2% having two employed, and 2.8% having three employed and more. Compared to 2015, the percentage of households having no one employed and one employed has increased while the percentage of households having two employed and three employed has decreased.



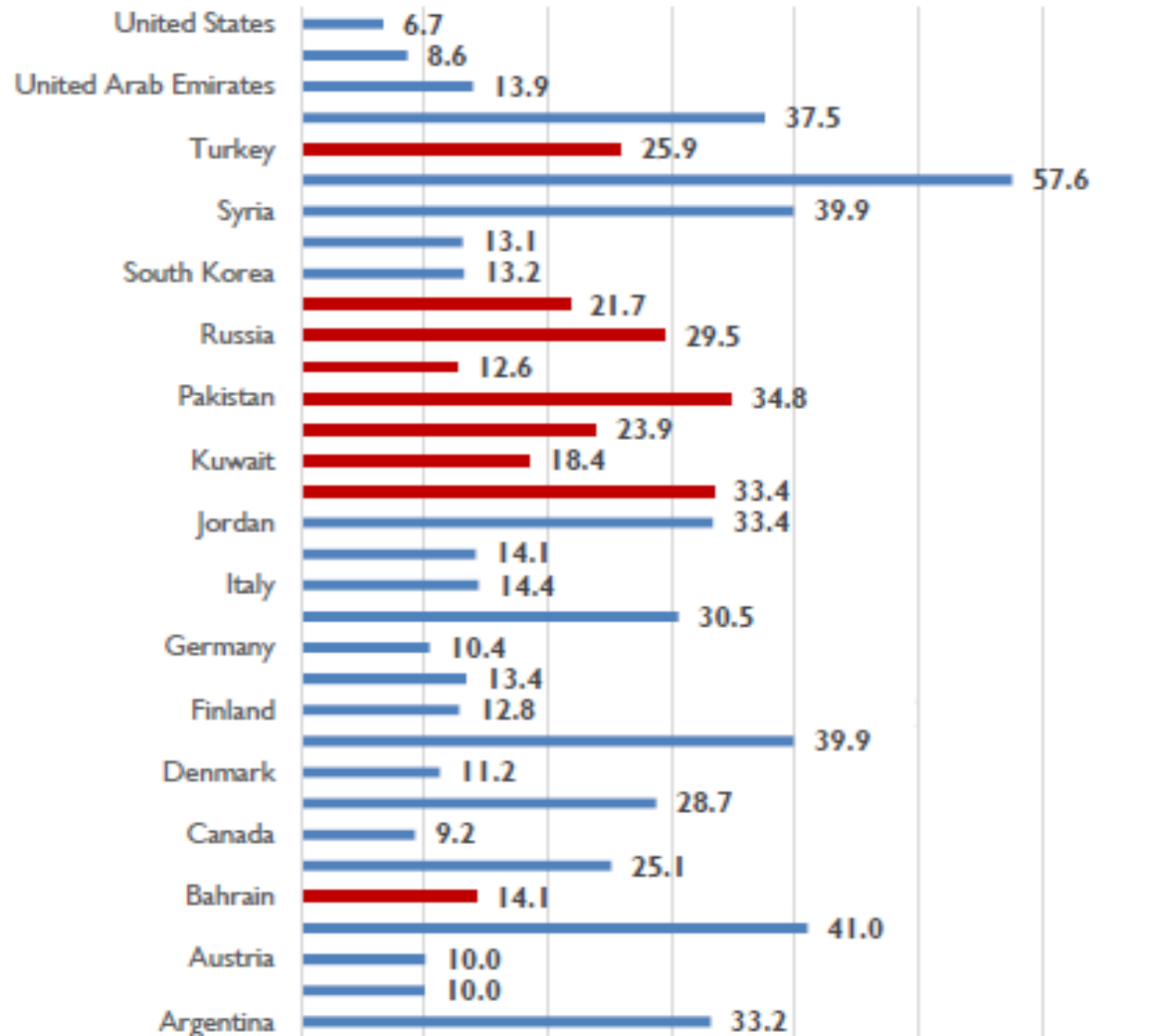
Source: Based on Central Bank data



Household Cost of Food

- The share of household cost of food from the total household expenses has increased from 25.6% in 2006 to 27.2% in 2013. Then, it has fallen to 22.9% in 1395 with downward trend.
- In 2017, the average of this index is 29.9% in the world, 13% in North America, 17.5% in Europe, and 17.7% in the Middle East and North Africa of the household expenses.

Food Share of the Household Expenses in 2016



Source: Based on Central Bank and the United Nations Economics Department



Changes in Food Consumption in the Household Basket from 2009 to 2013

As shown in table below, consumption of the main household food items have decreased except chicken and egg. For example, the table shows reduced milk consumption by more than 40%, reduced red meat consumption by more than 16%, etc.

	Year	Urban areas					Year	Urban areas			
		Mean kg	First decile kg	Second decile kg	Third decile kg			Mean kg	First decile kg	Second decile kg	Third decile kg
Bread	2009	129	128	131	128	Red meat	2009	9	3	9	17
	2010	128	133	127	124		2010	9	3	9	18
	2011	123	116	125	130		2011	9	4	9	17
	2012	124	115	125	135		2012	9	4	8	18
	2013	125	120	126	131		2013	7	3	7	15
Five-year growth (percentage)		-3.3	-6.7	-3.4	1.8	Five-year growth (percentage)		-16.1	-14	-17.6	-14.6
Rice	2009	39	22	38	63	Chicken	2009	19	12	19	30
	2010	38	25	38	59		2010	21	14	20	31
	2011	39	26	39	60		2011	21	15	21	31
	2012	38	25	37	59		2012	20	14	20	29
	2013	34	22	34	54		2013	20	15	21	29
Five-year growth (percentage)		-11.1	0	-11.5	-15.6	Five-year growth (percentage)		7.5	19.9	9.8	-1.8
Fruit	2009	68	37	69	113	Milk	2009	42	30	44	57
	2010	74	44	74	120		2010	42	29	44	60
	2011	74	45	75	115		2011	33	22	33	49
	2012	71	44	69	115		2012	26	15	27	43
	2013	66	41	66	103		2013	25	16	25	39
Five-year growth (percentage)		-2.7	13.3	-3.1	-9.3	Five-year growth (percentage)		-40.2	-48.5	-42.1	-31.1
Vegetable	2009	104	72	108	146	Egg	2009	6	5	7	8
	2010	101	74	103	140		2010	7	6	7	9
	2011	97	72	100	132		2011	6	5	7	8
	2012	96	67	98	139		2012	7	5	7	9
	2013	90	64	90	127		2013	7	5	7	8
Five-year growth (percentage)		-13.7	-10.8	-16.1	-12.6	Five-year growth (percentage)		3.9	5.3	3.4	3.2
Beans	2009	8	5	8	12						
	2010	8	5	8	11						
	2011	8	6	8	11						
	2012	8	5	8	11						
	2013	7	5	7	10						
Five-year growth (percentage)		-13.7	-14.5	-13.5	-13.3						

Source: Research Center of the Parliament



Changes in Food Consumption in the Household Basket from 2004 to 2013

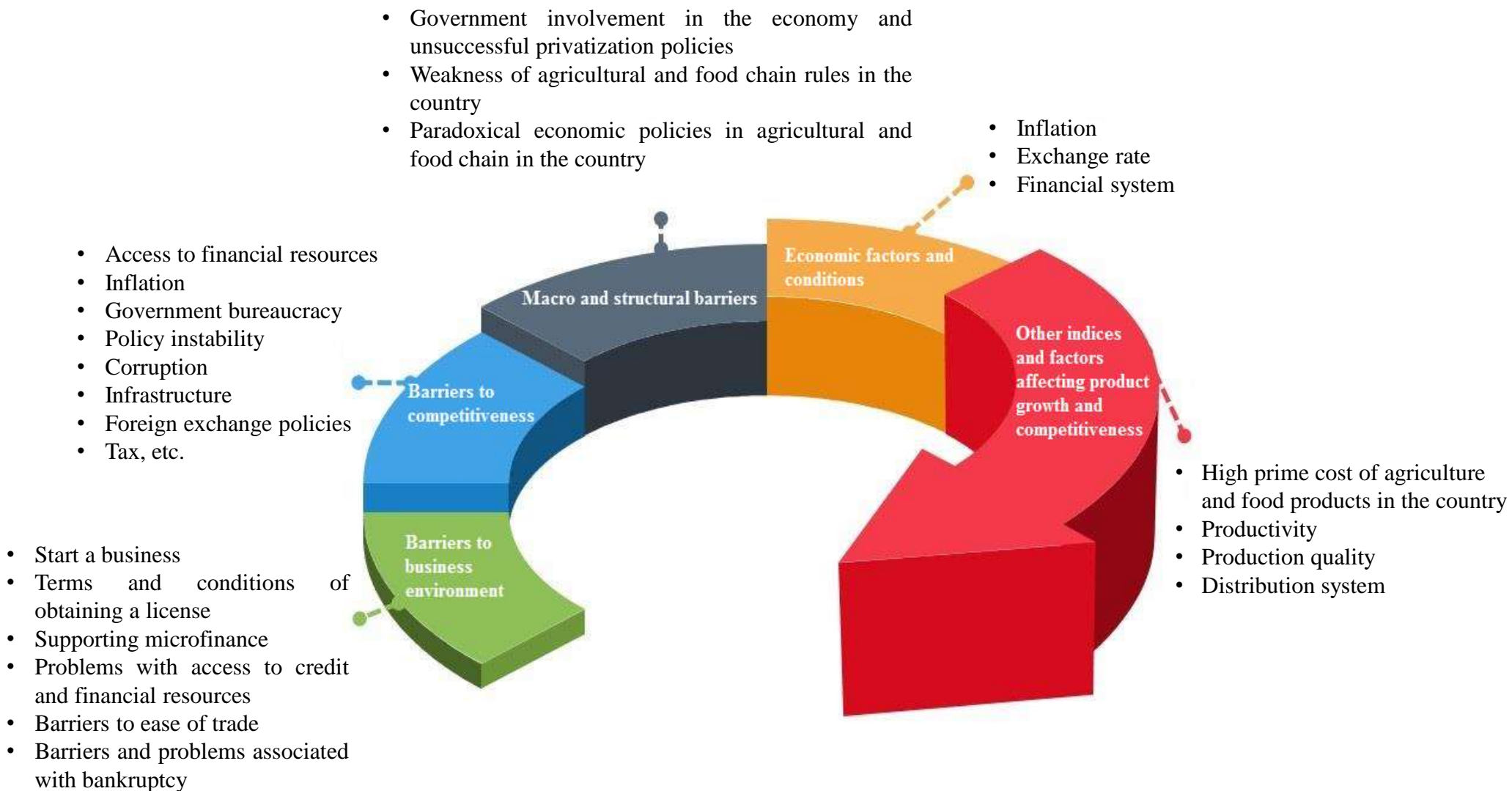
- In the dairy group: Milk consumption has decreased by 35%, yoghurt by 14%, and cheese by 11%.
- In the cereal group: Bread consumption has decreased by 31% and rice by 34%.
- In the protein group: Meat consumption has decreased by 33%, chicken by 4%, egg by 10%, and fish by 35%.
- In the sugar and lump sugar group: Sugar consumption has decreased by 45% and lump sugar by 35%.
- In the group of oils: vegetable oil has decreased by 26%.

Foodstuffs	Household consumption in 2004	Household consumption in 2013	Decrease in kg	Decrease in percentage
Bread	506	350	156	31%
Rice	180	119	61	34%
Meat	60	40	20	33%
Chicken	87	84	3	4%
Fish	20	13	7	35%
Milk	211	138	73	34%
Yogurt	95	82	13	14%
Cheese	26	23	3	11%
Egg	40	36	4	10%
Vegetable oil	50	37	13	26%
Lump sugar	34	22	12	35%
Sugar	20	11	9	45%
Tea	6	4	2	33%

Source: Central Bank

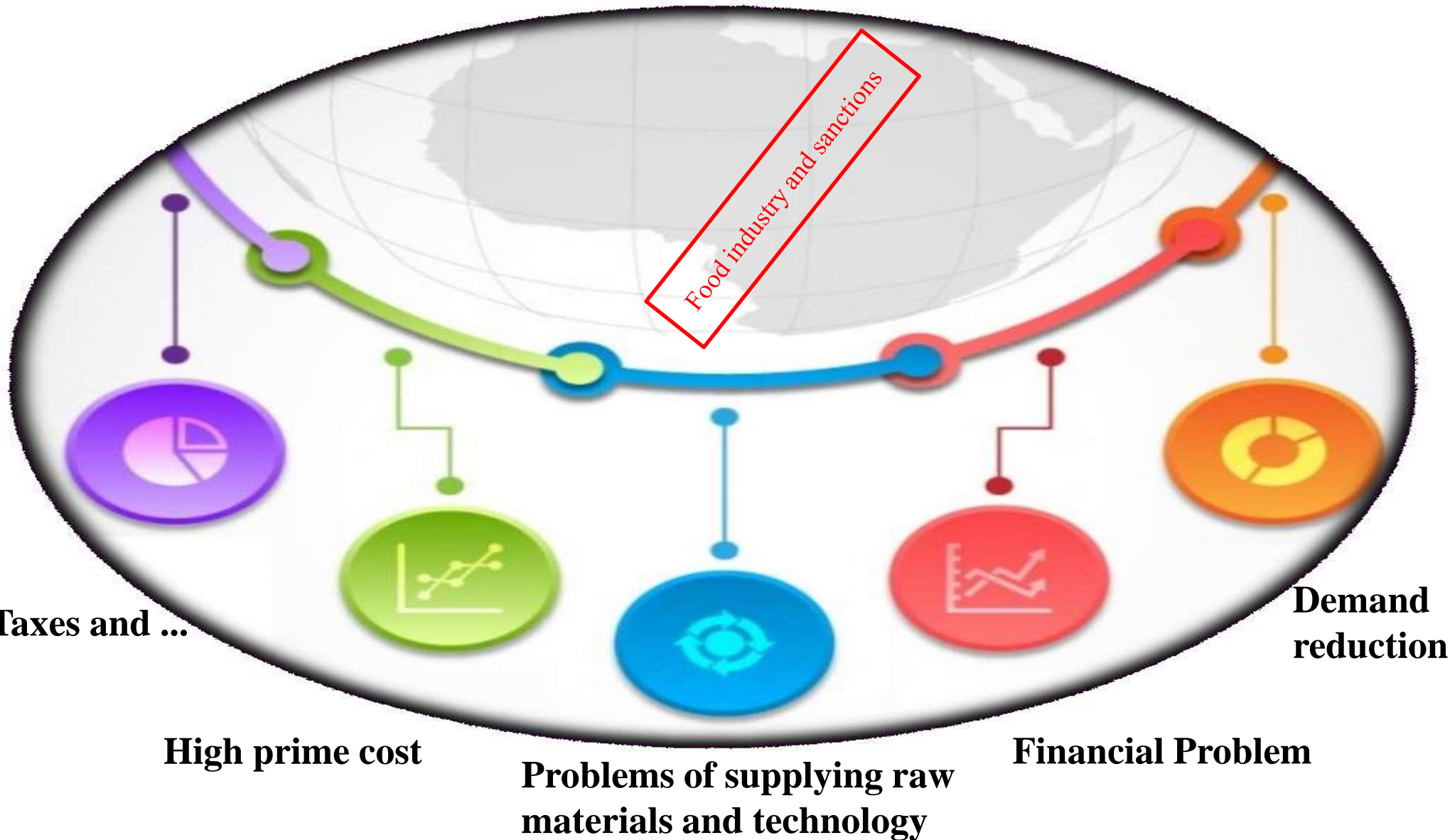


Challenges of Production and Competitiveness in Iran Agriculture Chain and Food





Challenges of Food Industry and the Effects of Sanctions

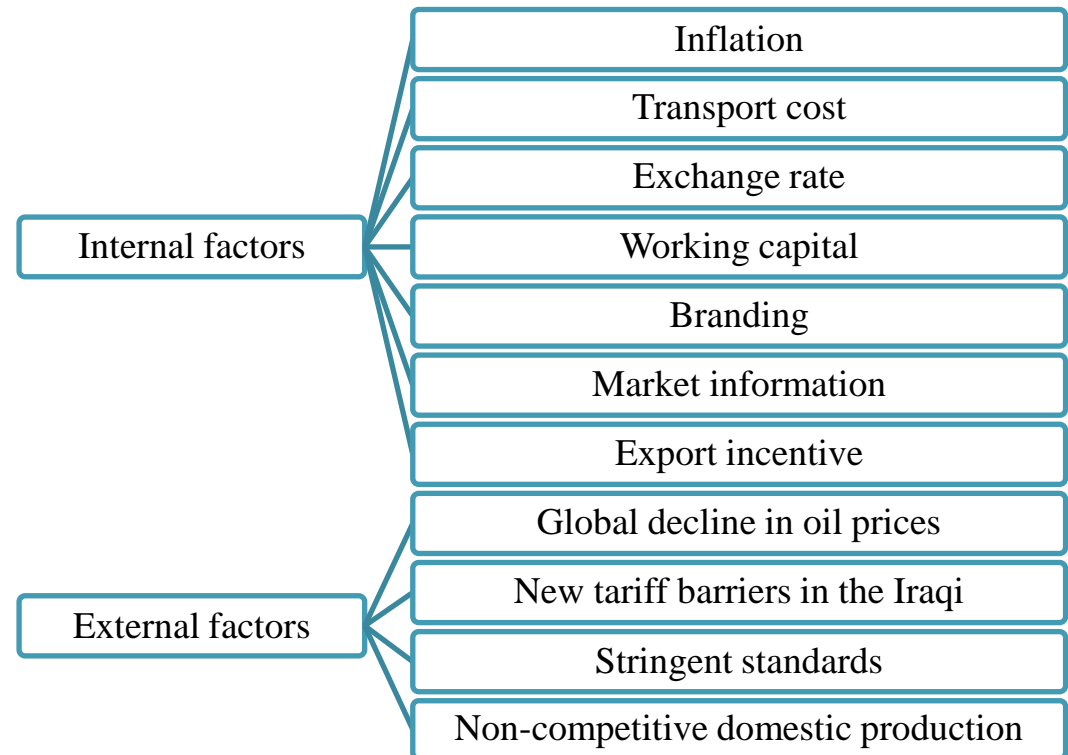




Barriers to the Food Industry and the Effects of Sanctions- Decreased Demand

Decreased domestic demand

- Reduced people purchasing power and, consequently, decreased demand have led to a decline in production along with a drop in prices. In other words, lowering per capita income will negatively affect the demand and sales level of food products.
- Increased effective demand leads to an increase in supply in the food industry. This leads to improved quality, lower prime prices, ..., and competitiveness of the food industry due to competition between the country's food industry.



Decreased external demand



Barriers to the Food Industry and the Effects of Sanctions- Financial Problems

Financing

Reduced foreign investment

Other financial problems

The main challenges of the manufacturing sector concerning provision of capital include:

- **The cost of bank and non-bank credit interest rate on bank and non-bank facilities:** Despite the reduced in credit interest rate, banks can not use it due to lack of financial resources; and enterprises can not use it due to high debt. In this provision, reduced in credit interest rate of production has not given attention.
- **Unconventional collateral**
- **Conditions for providing credit from banks to manufacturing units**
- **A short time for loan repayment**
- It should be noted that certain data were not available for granting credits to the food industry

- Problems in using L/C, opening credit, and international banking services in general: Due to limitations in the banking system of the country, many reputable international banks are preventing to accept L/C of domestic banks. Therefore, domestic producers have deprived of the possibility to open credit and use inter-bank transactions. This has made problem for the import of raw materials, machinery, equipment, and spare parts as well as the export of in-house manufactured products.

- The need for purchases in cash: Many producers who are willing to trade with domestic producers prevent from time-consuming sales of equipment and raw materials and they are only willing to do cash transactions. This will encounter domestic producers with the problems liquidity and increased costs.



Barriers to the Food Industry and the Effects of Sanctions- Supplying Raw Materials and Technology

Supplying raw materials

- **The volatility of raw material prices due to the impossibility of concluding long-term contracts:** Due to the foreign investors' avoidance to conclude long-term contracts and their willingness to do cash transactions, the price of materials and equipment has more fluctuations, which is made the profitability of domestic industries more skeptical.
- **Delay in international transactions, entry of needed raw materials:** Due to applied limitations, many foreign manufacturers are prohibited from selling raw materials and equipment to domestic factories. In addition, they reveal additional sensitivities for a wide range of goods and equipment. In general, access to some of equipment and materials is either not feasible or it is possible with a great delays or difficulty.
- **Increasing production costs, increasing the risk of foreign purchases, supplying raw materials through dealer:** Due to the prohibition of many reputable manufacturers to sell directly goods and equipment to the country, manufacturers have to buy required goods from dealers. This has greatly increased the risk of non-fulfillment obligations by foreigners in addition to the sharp increase in prices. In addition, due to the domestic inflation arising from the prolongation of some projects, Rials costs of investment in project items are subject to severe and unpredictable increase.

Supplying technology, machinery, and equipment

- **The impossibility of using foreign specialists:** Range of restrictions is not only limited to raw materials, equipment, and spare parts but also it made problem for domestic producers to use foreign specialist forces, which is accounted for one of the shortages of production. Given the fact that the specialist force is one of the main identities in some industries, problem in this field may cause shortages in production.
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Barriers to the Food Industry and the Effects of Sanctions- Tax

Value-added tax

It is fearful that tax pressure on the food industry will increase as government revenues decline.

- Problems of value-added tax in the food chain include:
- Exemption of certain goods from paying taxes while their previous chain is not exempted.
- How to recover and time-consuming of taxpayers' demands from Tax Affairs Organization
- Lack of hardware and software and lack of specialized human resources in law enforcement
- Lack of precise determination of tax-free goods and problems arising from their wide range (the precise review and definition of corps processing, extending the range of exemptions to the main food items of household basket for promoting community food security, and considering zero rate of value-added tax for agricultural and food items instead of their exemption)
- Lack of transparency in all parts of the food chain: Fairly enforcement of value-added tax law in the food chain requires mechanisms and infrastructures. Accordingly, all transactions in this chain must be identified in order to be determined by issuing an invoice, type, amount, price, date, and place of origin. Now, the food chain is the most transparent sector in the food industry. This should be generalized to other parts of the food chain such as the guilds in order to enforce value-added tax.

A vibrant landscape photograph of a cornfield at sunset. The foreground is filled with rows of lush green corn plants. In the background, there are rolling hills, a line of trees, and a bright sun low on the horizon, creating a warm, golden glow and lens flare across the right side of the image. The sky is a clear, deep blue.

THANK YOU