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## AGRI-FOOD TRADE FLOWS AND ECONOMIC INTEGRATION IN THE EUROPEAN UNION

### ABSTRACT

After the approval of the Declaration of Independence (August 27, 1991), Moldova has been striving to strengthen its place among the democratic nations of the world and to reform the national economy. The appearance of the new socio-economic system opened to the world, the process to join our own efforts with the international community have produced significant changes not only in the nature, but also in the background, of the trade flows of agricultural products.

Naturally, the trade with food products must be directed towards the markets ensuring the free movement of products through the progressive removal of restrictions on trade between countries and/or groups of countries, meeting the interests of producers and consumers.

In the present paper, the authors focus on the market of food products, investigate the import and export of food products, the operation of the CIS market and Common Market, pursuant to which the authors come up with some proposals that would change the situation on the domestic food market for the better, and would accelerate the integration of the national market of agricultural goods into the EU Common Market.

**Key words:** agriculture, market, import, export, policies, reforms, mechanisms, efficiency.

**JEL Classification:** Q18 Q19.

### 1. INTRODUCTION

In all the countries, including the Republic of Moldova, agriculture was and remains the support of human existence and, therefore, it is the most powerful balancing factor in harmonizing the economic development. The overall development of agriculture is the result of a complex political, legal and economic factors, among which, in the conditions of the economy based on market relations, the trade flows stand out. The purpose of the investigation is the study of evolution, trends and structural changes in our country's agricultural trade, the factors that determine them and the formulation of some proposals that would make them more effective.

## **2. STATE OF KNOWLEDGE**

The aspects regarding the study of food products market can be found in national and international research. Yet, even if this subject has been studied and debated at various official meetings in our country, addressed at scientific sessions, presented in various national and international publications, it remains of great actuality and importance for our country, which is currently following a misty and difficult way to the economic reforming of national economy.

## **3. MATERIAL AND METHOD**

Among the materials used in the research we can mention national and international legal acts, policies and mechanisms on food import and export of goods produced and applied by countries with prosperous economy, publications specific to the theme that have helped us to understand and explain the phenomena taking place in the trade with agricultural goods. The study of statistical information on the agricultural commodity market has provided us with relevant meanings and explanations on the evolution of imports and exports, on the basis of which proposals are made for the agricultural goods to be more competitive and trade flows more efficient. In the research study, specific economic investigation methods and techniques were applied.

## **4. RESULTS AND DISCUSSIONS**

### **4.1 Agriculture in national economy**

The national economy is characterized by the increase of gross domestic product (GDP) in current prices, from about 19 billion lei in 2001 to 82.17 billion lei in 2011, i.e. 4.3 times. Yet GDP in comparable prices for the reference years increased only 1.6 times. GDP per capita in current prices increased from 5.25 thousand lei in 2001 to 23.08 thousand lei in 2011, i.e. 4.4 times.

Major changes occurred in the contribution of different branches of national economy to GDP (Table 1). While in the year 2001, the so-called other activities prevailed, which include the provision of services (46.9%), followed by industry (18.7%), trade and net taxes on products (by 12.0% each), in the year 2011 services remained prevalent (31.7%), followed by net taxes on products (17.0%), industry (13.3%) and trade (13.3%). Although agriculture contribution to the gross domestic product of our country was down from 22.4% in 2001 to 12.3% in 2011, this sector remains extremely important for our economy.

The total agricultural production in current prices (Table 2) increased from 8.65 billion lei in 2001 to 22.12 billion lei in 2011, or 2.56 times. This growth is definitely due to prices. While the total of agricultural production in current prices

increased from 10.35 billion lei in 2003 to 19.87 billion lei in 2010, i.e. 1.9 times, in comparable 2005 prices it increased to 10.18 billion lei in 2003 and to 12.15 billion lei in 2010, i.e. 1.2 times.

Crop production prevails in total agricultural production, with 66.2% in 2001 and 70.0% in 2011. In principle, this situation is due to the level of sold production profitability, which in crop production exceeded the profitability of animal production except for the years 2005, 2006 and 2009. Moreover, animal/livestock production had losses in 2003 (-8.6%) and in 2007 (-3.0%).

*Table 1*  
Evolution of GDP by industries, %

<b>Economic branch</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Agriculture	22,4	21,0	18,3	18,2	18,4	15,1	10,0	8,9	8,4	12,0	12,3
Industry	18,7	17,3	17,6	16,4	15,9	14,3	14,2	13,9	13,0	13,3	13,7
Constructions	3,1	3,0	2,9	3,4	3,4	4,0	4,8	4,9	3,4	3,4	3,4
Trade	12,0	11,1	10,8	10,6	10,4	11,5	12,6	13,0	13,0	12,8	13,3
Transports and communications	10,4	10,0	10,8	11,8	12,2	11,8	12,3	12,2	12,3	11,3	10,7
Other activities	23,7	26,9	27,1	27,7	27,8	29,4	31,5	31,7	35,6	32,7	31,7
Services of financial intermediaries	-2,3	-2,0	-2,3	-2,3	-2,0	-2,5	-2,3	-2,1	-1,7	-2,1	-2,
Net taxes on products	12,0	12,7	14,8	14,5	14,3	16,6	16,9	17,7	16,0	16,6	17,0
Nominal GDP	100	100	100	100	100	100	100	100	100	100	100

*Source:* Authors' calculations based on the data from the Statistical Yearbooks of Moldova.

*Table 2*  
Agricultural production, billion lei

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Total	8.65	9.47	10.35	11.82	12.69	13.73	12.83	16.50	13.30	19.87	22.12
of which											
– vegetable	5.73	6.30	7.09	7.90	8.45	9.08	7.94	10.80	7.86	13.62	15.50
– animal	2.65	2.87	2.94	3.52	3.85	4.28	4.51	5.52	4.99	5.79	6.12
– services	0.26	0.31	0.33	0.39	0.39	0.38	0.38	0.38	0.45	0.47	0.49
production profitability level											
vegetable%	19.2	22.9	29.8	24.8	17.1	17.1	23.1	27.9	5.2	43.2	-
– animal %	9.4	1.1	-8.6	7.4	25.0	20.1	-3.0	18.4	21.4	20.7	-

*Source:* Authors' calculations based on the data from the Statistical Yearbooks of Moldova.

The share of the private sector in national agriculture is growing. Although the global agricultural production obtained in the private sector in comparable 2005 prices ranged from 9.43 billion lei in 2007 to 12.32 in 2008 (Table 3), it definitely

prevailed compared to that obtained in the public sector. In the year 2008, the global agricultural production obtained in the private sector exceeded that of the public sector about 9 times, and 18.1 times in 2009.

*Table 3*

Global agricultural production by ownership forms, in comparable 2005 prices, billion lei

	2003	2004	2005	2006	2007	2008	2009	2010
Total	10.18	12.30	12.40	12.27	9.43	12.46	11.26	12.15
Including: – public	0.069	0.139	0.117	0.106	0.075	0.137	0.062	0.078
– private	10.11	12.16	12.28	12.16	9.36	12.32	11.20	12.07
out of which: collective	2.40	3.72	3.51	3.36	2.59	4.31	3.37	3.81
household farms	7.71	8.44	8.78	8.80	6.77	8.01	7.82	8.25

*Source:* Authors' calculations based on the data from the Statistical Yearbooks of Moldova.

In the period 2003–2010, two-thirds of the global agricultural production of the private sector was obtained on the households farms. While in the year 2003 the production on household farms accounted for 76.24%, in the year 2010 it was down to 68.4% of the private sector production. The agricultural production structure by branches (Table 4) did not undergo major changes.

*Table 4*

Structure of agricultural production in all categories of households, %

Indicators	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total, out of which:	100	100	100	100	100	100	100	100	100	100
Crop production	70	70	67	71	68.9	67.3	58.1	74.3	68.1	66.2
Including	32	32	20	33	22.9	18.4	9.5	24.6	18.4	18.8
– cereal crops										
– sugar beet	3	3	2	2	2.6	3.	2.1	2.5	1.0	2.3
– tobacco	2	1	1	1	0.5	0.4	0.4	0.3	0.4	0.6
– sunflower	4	5	7	6	6.3	7.2	3.8	6.9	5.9	7.3
– vegetables and melons	6	6	6	4	7.3	9.3	6.2	6.0	7.9	7.4
– fruits and berries	4	4	9	5	4.4	3.9	4.0	4.2	4.6	3.9
– grapes	8	10	12	10	12.8	11.6	19.4	15.	18.7	12.1
Animal production	30	30	33	29	31.1	32.7	41.9	25.7	31.9	33.8
Including	12	12	14	12	10.9	10.6	13.3	9.1	10.7	10.2
– milk										

*Source:* Authors' calculations based on data from the Statistical Yearbooks of Moldova.

Over the years, the share of crop production was down from 70% in 2001 to 66.2% in 2010. The share of cereal crops ranges from 9.5% in 2007 to 33 percent in 2004, and the share of grapes from 8% in 2001 to 19.4 percent in 2007. The current situation in national agriculture is considerably influenced by the market.

#### 4.2. The national market of agri-food products

Usually, in all the countries, food production is primarily addressed to the domestic market. While the value of retail sales (Table 5) through the national commercial units increased from 2.76 billion lei in 1995 to 33.81 billion lei in 2011 or 12.25 times, the value of food products retailed throughout these years increased only 8 times.

The share of food products in total retail sold products decreased from 42.6% in 1995 to 28.9% in 2011, or by 17.3 percentage points. Moreover, the demand structure has changed as well.

While in the year 1995, in the structure of retail food products sold through commercial units the prevailing foodstuffs were bread, pastry and confectionery (10.6%) followed by meat and meat products (8.5%) and alcoholic beverages (7.4%), in the year 2011 the alcoholic beverages (6.8%) structurally prevailed, followed by bread, pastry and confectionery (5%) and meat and meat products (4.0%), which is extremely dangerous for the health of any human being.

In 1990, 88% of the harvested fruits were sold and the public procurement accounted for 65%. In 1999, 31.6% of harvested fruits were sold, including 29% that were purchased by the state. The same trend was characteristic for the vegetable market development.

Over the last decade, the value of retail sales of potatoes, fresh fruit and vegetables increased from 97.1 million lei in 2005 (Table 6) to 351.6 million lei in 2010 or 3.7 times, while in the case of fruit and vegetable juices it rose modestly from 62.4 to 160.3 million lei, i.e. 2.6 times.

Table 5  
Retail sales value in the national commercial units

	1995	2000	2005	2006	2007	2008	2009	2010	2011
Total, billion lei	2.76	6.01	11.03	13.62	16.97	21.39	19.96	25.10	33.81
Including: Food products	1.27	2.74	3.61	4.29	5.49	7.09	7.06	8.05	10.17
% of total	46.2	45.6	32.7	31.5	32.5	33.2	35.4	32.1	28.9
Out of which:									
Fresh vegetables and fruits	-	-	0.9	0.7	0.9	1.0	1.3	1.4	1.5
Meat and meat preparations	8.5	7.0	5.2	4.7	4.4	5.2	6.1	4.9	4.0
Bread, pastry and confectionery	10.6	6.0	6.3	5.9	6.2	6.3	6.4	5.9	5.0
Beverages	7.4	7.4	9.2	9.3	9.1	8.7	9.3	8.0	6.8
Other food products	5.3	6.0	9.6	9.5	10.5	10.4	10.7	10.3	9.8

Source: Authors' calculations based on data from the Statistical Yearbooks of Moldova.

*Table 6*  
Trading fruit and vegetables on the domestic market

	2000	2005	2006	2007	2008	2009	2010
The value of retail sales, million lei							
Potatoes, fresh fruit and vegetables	56.8	97.1	100.0	147.8	206.9	246.9	361.6
Fruit and vegetable juices	-	62.4	80.5	119.8	158.2	163.8	160.3
Sales by agricultural enterprises, thousand tons							
Fruits and berries	113.1	182.7	131.5	146.1	182.3	135.1	131.9
Including: processing units	26.1	68.9	49.8	65.0	82.0	42.5	31.1
– by other trading means	87.0	113.8	81.7	81.1	100.3	92.6	100.8
Vegetables	63.0	44.4	51.8	30.8	45.6	36.0	36.9
Including: processing units	14.6	12.3	20.9	14.6	22.1	13.7	14.6
– by other trading means	48.4	32.1	30.9	16.2	23.5	22.3	22.3

Source: Authors' calculations based on data from the Statistical Yearbooks of Moldova.

In the year 2000, the agricultural enterprises traded 113.1 thousand tons of fruits and berries, representing 89.6% of the products harvested in these companies, increasing sales by 131.9 thousand tons in 2010, or by 16.6 percent. In this ten-year period, the sale of fruit and vegetables by other channels than those of processing units prevailed. Thus, the fruits and berries sold to the processing units accounted for 23.1% in the year 2000 and 23.6 % in 2010, while vegetables accounted for 23.2% and 39.5% respectively.

The domestic demand of food products in our country is limited to approximately 3.6 million consumers and by the population's average monthly disposable incomes (Table 7) which increased from 185.8 lei in 2000 to 586.6 lei in 2005, or 3.6 times and to 1444.7 lei in 2011 or 2.54 times respectively compared to 2005. The monthly average pension basically had the same trend.

*Table 7*  
Main indicators which characterize the population's purchasing capacity

	2000	2005	2006	2007	2008	2009	2010	2011
Disposable incomes, lei	185.8	568.6	839.6	1018.7	1188.6	1166.1	1273.7	1444.7
Average monthly pension, lei	85.1	383.2	442.3	548.3	646.4	775.5	810.9	874.1
Minimum subsistence level (monthly average/ person), lei	-	766.1	935.1	1099.4	1368.1	1187.8	1373.4	1503.0
disposable income/ Minimum subsistence in %	-	74.2	89.8	92.7	86.9	98.2	92.7	96.1
– average monthly pension	-	50.0	47.3	49.9	47.2	65.3	59.0	58.2

Source: Authors' calculations based on data from the Statistical Yearbooks of Moldova.

Given that the average monthly value of the minimum subsistence level per person grew from 766.1 lei in 2005 to 1503.0 lei in 2011 or about twice, the

monthly average disposable income of the population doesn't cover the minimum subsistence average level, even if their ratio rose from 51.4% in 2001 to 74.2% in 2005 and to 96.1% in 2011. In the year 2011, only 26.2% of the total population, including 13.4% in rural areas, had incomes that exceeded the disposable average level.

Therefore, the production obtained in national economy exceeds the domestic market demand and our country is doomed to commercial relations with other countries and/or groups of countries.

### 4.3. Export and import of agri-food products

The total exports increased from 471.5 million USD in 2000 to 2216.8 million USD in 2011 (Table 8) or 4.7 times, while the food exports rose only 3.15 times in the investigated period. The share of agri-food products in total exports decreased from 61.72% in 2000 to 41.37% in 2011, or by 20.35%.

Table 8  
Exports by sections, million USD

	2000	2005	2006	2007	2008	2009	2010	2011
Total export	471.5	1091.2	1051.6	1341.8	1591.2	1287.5	1541.5	2216.8
Including agri-food products	291.0	582.9	464.0	533.8	595.0	609.2	732.2	917.1
Out of which: animals and animal products	22.8	17.2	16.2	13.6	10.1	9.1	27.0	38.0
Vegetable products	65.9	131.9	136.5	162.9	210.1	268.4	340.7	471.0
Fats and oils	3.9	37.8	34.9	55.3	62.9	50.7	47.6	77.5
Food products, alcoholic beverages and soft drinks	198.4	396.0	276.4	276.0	311.9	281.0	316.9	330.6

Source: Authors' calculations based on data from the Statistical Yearbooks of Moldova.

Structurally, changes were produced in the export of agricultural products in the investigated period. While in the year 2000 the food products, alcoholic and soft drinks obviously prevailed, with 68.2%, followed by vegetable products (22.6%), animal and animal products (7.8%), in the year 2011, the largest share (51.4%) belonged to vegetable products, followed by food products, alcoholic and soft drinks (36.0%), fats and oils (8.5%).

Total imports increased from 776.4 mil USD in 2000 to 5191.3 mil USD (Table 9) or 6.7 times. The imports of agri-food products increased by slightly lower rates (6.3 times) in the investigated years, which caused the diminution of agri-food products in total imports from 14.1% in 2000 to 13.2% in 2011.

*Table 9*  
Imports by sections, million USD

	2000	2005	2006	2007	2008	2009	2010	2011
Total imports	776.4	2292.3	2696.2	3689.9	4898.8	3278.3	3855.3	5191.3
Including agri-food products	109.6	279.6	315.6	466.0	631.3	513.7	591.4	687.8
out of which: animals and animal products	10.7	57.2	51.9	61.7	100.3	75.3	94.7	107.8
Vegetable products	25.3	65.0	72.8	150.4	166.7	132.6	168.8	199.1
Fats and oils	2.4	9.9	11.1	16.0	20.9	16.1	19.3	25.1
Food products and beverages	71.2	147.5	179.8	237.9	343.4	289.7	308.6	355.8

*Source:* Authors' calculations based on data from the Statistical Yearbooks of Moldova.

The structure of imports of these products did not suffer any major changes. Thus, the imports of food products, alcoholic and soft drinks prevailed both in 2000 (with 65.0%) and in 2011 (with 51.7%), followed by vegetable products (with 23.1% and 28.9%) and animals and animal products (9.8% and 15.7% respectively).

Both for the national economy and for the agri-food sector of any country, including our country, it is extremely important to ensure a balance between imports and exports. The coverage degree of total imports by total exports (Table 10) in the year 2000 was 60.7%, down to 47.6% in 2005 and 42.7% in 2011.

*Table 10*  
Coverage degree of imports by exports, %

	2000	2005	2006	2007	2008	2009	2010	2011
Total	60.7	47.6	39.0	36.3	32.5	39.1	40.0	42.7
Including agri-food products	265.5	208.5	147.0	114.5	94.2	118.6	123.8	133.3
out of which: Animals and animal products	213.1	30.1	31.2	22.0	10.1	6.8	28.5	35.2
Vegetable products	260.5	202.9	187.5	108.3	126.0	202.4	201.8	236.6
Fats and oils	162.5	381.8	314.4	345.6	300.9	314.9	246.6	308.8
Food products and beverages	278.6	268.5	153.7	116.0	90.8	97.0	102.7	92.9

*Source:* Authors' calculations based on data from the Statistical Yearbooks of Moldova.

Even though the exports of agri-food products, in the reference years, exceeded the imports of agri-food products, the coverage degree of imports by exports in the case of agri-food products was down from 265.5% in the year 2000 to 208.5% in 2005 and 133.3% in 2011.

It is significant that in our country, which is mainly an agro-economic country, with a considerable share of food products, alcoholic beverages and soft drinks, the coverage degree of imports by exports in this case was down from 278.6% in 2000 to 92.9% in 2011, and thus the Republic of Moldova began to import more foodstuffs, alcoholic beverages and soft drinks than it exports.



The integration vector of the national economy, declared by the public authorities and accepted by the majority of our country's population, is the European Union.

#### **4.4. European Union: an important player on the global market**

The European Union has been and remains an important actor on the world market and is of major interest for us. Naturally, first of all we need to know the trade policies of the EU and to adjust our national trade policy to the community requirements. The Treaty of Rome provides for a "common commercial policy" that practically implied tariffs, agricultural duties and anti-dumping duties. The principle governing the EC trade policy after the Maastricht Treaty is that of an "open market economy with free competition" (Article 4).

Even in such conditions, the Common Market tends to exclude any discrimination between producers or consumers within the Union and elaborates mechanisms that are designed to render the extra-community relations more efficient. Thus, (EC) Regulation no. 178/2002 of the European Parliament and of the Council from January, 28 2002 provides for the establishment of the European Food Safety Authority to develop the requirements, principles and procedures regarding the commercialization of food products.

Currently, the EU trade policy focuses and tends to focus in the future as well more and more on the removal of barriers, including the non-tariff barriers to trade; yet the global competition is strong, and the European positions tended to regress to the benefit of more aggressive players. According to Article 207 of the consolidated version of the Treaty on the Functioning of the European Union, the common commercial policy shall be based on uniform principles, particularly with regard to changes in tariff rates, the conclusion of tariff and trade agreements in the trade with goods and services, and the commercial aspects of intellectual property, foreign direct investments, uniformization of liberalization measures, export policy and measures to protect trade such as those to be taken in case of dumping or subsidies.

The competition rules under Article 42 of the consolidated version of the Treaty on European Union shall apply to production and trade of agricultural products only to the extent determined by the law approved by the European Parliament and the Council under the procedure laid down in paragraphs 2 and 3 of Article 43.

Pursuant to Article 44 "in case, if in a Member State, a product is subject to a national market organization or to internal rules having equivalent effect which affects the competitive position of similar production in another member state, the member states apply a countervailing duty on imports of this product coming from the member state where such organization or rules exist, unless that state applies a countervailing charge on export." Another major task of the current EU trade policy is consumers' protection. According to Article 169 of the consolidated version of the Treaty of Lisbon, the Union shall contribute to protecting the health, safety and economic interests of consumers as well as to promoting their right to information, education and organization.

Obviously, it is also necessary to know the extra-community trade in order to be knowledgeable of what place our country would hold in the common market. The extra-community export share in total EU corresponding flows increased from 32% in 2000 to almost 36% in 2011 and imports from 37% to 39%.

The extra-EU exports in the year 2011 prevailed (with 80%), the processed products following a downward path in latest years. In the extra-EU imports, the processed products accounted for about 56% of the extra-community imports. In the year 2011, EU had positive trade balances for 14 groups of products and negative balances for 7 groups of products from the combined nomenclature, which generated a deficit of about 160 billion euro.

The agricultural products imported from the European Union countries (Table 11) ranged from 78712 million euro in 2007 to 90224 million Euro in 2008, and their export increased from about 78031 million euro in 2007 to reach a value of more than 95 billion Euro in 2010.

Table 11  
Extra-EU trade, mln euro

	Imports				Exports			
	2007	2008	2009	2010	007	2008	2009	2010
EU- 27	78712	90224	79373	87632	78031	84997	78460	95361
Austria	1269	1334	1255	1393	1859	1916	1690	1911
Belgium	5704	6584	5974	6110	3787	4254	3496	4152
Bulgaria	456	611	570	618	614	1121	873	1281
Czech Republic	347	399	339	398	404	447	409	448
Cyprus	164	265	183	219	53	59	57	69
Denmark	1519	1728	1364	1559	3901	4192	3856	4920
Greece	7410	8449	6395	7010	4856	5274	4821	5979
Estonia	78	85	78	70	230	207	149	225
Finland	451	544	602	761	745	814	710	1039
France	804	678	706	761	4361	3973	3835	4549
Germany	12417	13964	12399	14152	9200	11163	10668	12523
Ireland	1379	1619	1302	1404	1282	1549	1555	1849
Italy	7871	8913	8001	8785	7496	8299	7674	8843
Latvia	245	339	265	282	694	1094	817	1119
Lithuania	151	186	137	132	244	420	380	483
Luxembourg	58	51	63	89	13	13	12	17
Malta	57	63	44	44	37	46	51	61
Great Britain	11462	11739	10839	11691	5771	5746	5441	6709
Netherlands	14111	17559	15761	17413	10920	12048	11530	13419
Poland	1568	1761	1490	1720	2139	2458	2448	3049
Portugal	1442	1742	1219	1404	863	1016	963	1109
Romania	926	1121	980	1125	440	899	695	1115
Slovakia	92	94	96	129	135	179	160	224
Slovenia	507	535	579	709	264	346	301	351
Spain	6547	8024	7167	7736	14928	14085	13144	16553
Sweden	1291	1443	1337	1513	1323	1481	1265	1505
Hungary	384	395	267	403	1471	1898	1510	1859

Source: Authors' calculations based on Eurostat data (online data code: aact\_eaa01).

While in 2007 the export of food products in the European Union was less than import by 681 million EUR (0.9% of exports), in the year 2010 it exceeded imports by slightly more than 7.7 billion EUR or by 8.1% of exports.

Imports exceed exports in Belgium, Cyprus, Greece, Germany, Netherlands, United Kingdom, Portugal, Romania and others. Exports are higher in relation to imports in Austria, Denmark, France, Spain, Hungary and other EU countries.

The finished products represent 64% of this volume, with spirits and wines on the first place (16%). Currently, agricultural exports are almost all without returns (385 million euro in 2010 compared to over 6000 million euro in 2000).

#### 4.5. Moldova's trade relations

Throughout the years, our country's trade was subject to significant changes. Thus, the exports to CIS increased from \$543.1 million in 1996 (Table 12) to \$ 919.3 million in 2011, i.e. 1.69 times.

Table 12  
Foreign trade, million \$

	1996	2000	2005	2006	2007	2008	2009	2010	2011
Total	795.0	471.5	1090.9	1050.4	1340.0	1591.1	1283.0	1541.5	2216.8
– Export									
– Import	1072.3	776.4	2292.3	2693.2	3689.5	4898.8	3278.3	3855.3	5191.3
– Trade balance	-277.3	-304.9	-1201.4	-1642.8	-2349.5	-3307.6	-1995.3	-2313.8	-2974.5
Including:									
CIS	543.1	276.1	551.2	423.6	548.9	623.0	490.4	624.0	919.3
– Export									
– Import	652.7	259.8	905.2	1020.8	1333.7	1737.3	1141.8	1256.9	1713.4
– Trade balance	-109.6	16.3	-354.0	-597.1	-784.8	-1114.3	-651.4	-632.8	-794.2
EU - 27	78.1	102.2	443.2	536.9	678.9	820.1	667.3	728.9	1083.0
– Export									
– Import	177.2	226.0	1038.8	1218.5	1681.0	2103.5	1421.2	1704.2	2256.3
Trade balance	-99.1	-123.8	-595.6	-681.6	-1002.0	-1285.2	-753.8	-975.3	-1173.3

Source: Authors' own calculations based on data from the Statistical Yearbooks of Moldova.

However, the share of exports from CIS was down from 68.3% of total exports in 1996 to 41.47% in 2011. In the respective years, the exports of national goods in EU-27 increased from \$ 78.1 million to \$ 1083.0 million or about 13.9 times, while their share in total exports increased from 9.8% in 1996 to 48.8%.

The import of goods from CIS increased from \$ 652.7 million in 1996 to \$ 1713.4 million in 2011, i.e. 2.62 times, while their share in total imports decreased from 60.86% in 1996 to 33.0% in 2011. The EU-27 imports of goods

from our country increased from \$ 177.2 million in 1996 to \$ 2256.3 million in 2011 or 12.7 times, while their share in total imports increased from 16.5% in 1996 to 43.5% in 2011.

Of great interest for us is the geography of trade with agricultural products. The amount of fruit and vegetables exported to CIS countries increased from \$ 33.3 million in 2001 (Table 13) to \$ 146.5 million in 2011 or 4.4 times. The amount of fruit and vegetables exported to EU had a more modest increase, from \$ 24.4 million in 2001 to \$ 67.9 million in 2010 or 2.8 times. An opposite situation was noticed in imports.

*Table 13*  
Exports and imports of fruit and vegetables, mil USD

	2001	2005	2006	2007	2008	2009	2010
Exports							
Fruit and vegetables – in EU states	24.4	51.5	54.9	93.8	52.6	55.6	67.9
– in CIS countries	33.3	53.9	49.2	72.7	78.2	112.5	146.5
Vegetables, plants, roots and tubers	24.1	60.9	64.6	92.8	85.4	125.4	167.6
Including: – in EU states	16.5	33.5	38.0	47.0	36.1	36.8	49.2
– in CIS countries	5.1	23.1	20.3	39.2	41.6	78.2	104.7
Edible fruit	34.1	46.5	42.3	79.5	51.4	50.1	52.3
Including: – in EU states	7.5	15.8	15.4	45.9	15.9	18.0	17.6
– in CIS countries	25.9	29.5	26.5	32.8	34.5	31.4	33.9
Imports							
Fruit and vegetables – in EU states	6.2	17.3	19.1	27.0	31.0	34.4	56.2
– in CIS countries	1.6	6.9	9.0	13.5	13.4	12.0	11.0
Vegetables, plants, roots and tubers	5.5	17.7	20.5	28.7	29.5	40.3	58.0
Including: – in EU states	2.0	9.8	9.6	10.7	7.5	15.6	33.1
– in CIS countries	1.2	1.3	2.3	3.3	2.6	1.7	1.6
Edible fruit	2.6	13.6	14.5	20.9	30.1	20.0	22.7
Including: – in EU states	1.8	4.9	6.5	9.6	12.2	9.2	9.0
– in CIS countries	0.2	5.6	6.5	7.4	9.9	7.8	8.4

*Source:* Authors' calculations based on data from the Foreign Trade Statistical Yearbooks of Moldova.

The fruit and vegetables value imported from CIS countries increased from 1.6 mil \$ in 2001 to 11 mil \$ in 2010 and it is lower than the value of imports from the EU countries, which increased from 6.2 mil\$ (3.8 times more than in CIS) to 56.2 mil\$ in 2010 (5.1 times than in CIS). In fact, the increase of imports is alarming for our country. While in the year 2001 the imports of fruit and vegetables from CIS accounted for 4.8% and from the EU member states 2.5% compared to exports, in the year 2010 these accounted for 7.5% and 82.8% respectively.

While in the year 2001 the exports of edible fruit in the EU member states prevailed (68.5% of total), in the year 2010 the exports to CIS countries prevailed, with 62.5% of their total export. The edible fruit imports significantly increased from \$ 5.5 mil \$ in 2001 to 58 mil \$ in 2010, i.e. 10.5 times.

The edible fruit imports from EU prevailed, which were 1.7 times in the year 2001, and 20.7 times in 2010 higher than those from CIS.

The exports of vegetables and fruit preparations for the reference years increased from 34.1 to 52.3 mil\$ or 1.5 times. Their importance increased from 2.6 to \$ 22.7 mil \$ or 8.7 times. While prepared fruit and vegetable exports are mainly oriented to the EU countries, they are imported primarily from the CIS countries.

Grapes and grape products have been and remain our country's most exported goods. The decline in the volume of harvested grapes from 82.5 thousand tons in 1990 to 40.1 thousand tons in 2000 determined the diminution of their exports from 16.6 thousand tons in 1991 to 5.4 thousand tons in 1999. Those 7.3 thousand tons of grapes harvested in 2010 do not provide for the domestic demand either.

The exports of alcoholic beverages (Table 14) increased by 11.8 percent compared to 2009, amounting to USD 175.84 million (11.1 percent of total exports). Wine exports totaled 138.47 million USD, while the *divin* exports totaled 32.71 million USD. The main markets remained Russian Federation, Belarus, Ukraine and Kazakhstan, and the increase of exports to China, USA, the Czech Republic and Azerbaijan is worth mentioning.

Table 14  
Exports of wine from grapes

Indicators	2009		2010		2011	
	thsdal	\$mil	thsdal	\$mil	Thsdal	\$mil
Wine and grape must	9633.0	128.70	12606.8	137.87	12118.1	132.49
Including in: – UE	1079.4	19.39	1122.4	18.32	1470.0	20.64
– CIS	8014.0	103.99	10729.2	110.64	9864.1	100.93
– other countries	539.5	5.32	755.2	8.91	784.0	10.92
Sparkling wine, total	286.4	6.88	318.5	7.00	428.9	10.21
Including in: – UE	19.1	0.57	14.6	0.39	21.3	0.54
– CIS	246.2	5.84	281.0	6.13	362.6	8.65
– other countries	21.1	0.47	22.9	0.47	45.0	1.02
Wine from grapes, total	9289.3	121.31	12351.2	130.86	11558.9	121.41
Including in: – UE	1060.4	18.82	1107.8	17.93	1314.5	19.24
– CIS	7717.4	97.37	11243.4	104.50	9501.4	92.28
– other countries	503.5	4.75	732.3	8.43	739.0	9.90
Other grape must	65.3	0.51	4.8	0.01	134.2	0.86
Including in: – UE	-	-	-	-	134.2	0.86
– CIS	50.3	0.42	4.8	0.01	-	-
– other countries	15.0	0.09	-	-	-	-
Vermouths and other wines	8.0	0.12	37.0	0.59	21.1	0.40
Including in: – UE	2.6	0.03	3.0	0.03	3.4	0.04
– CIS	5.4	0.09	34.0	0.56	17.1	0.34
– other countries	-	-	-	-	0.6	0.02

Source: Foreign Trade of the Republic of Moldova, 2011.

The exports of wine and grape must oscillated from 9633.0 thousands dal in 2009 to 12606.8 thousand dal in 2010 and 12118.1 thousand dal in 2011. The structure of export in the case of products made from grapes was subject to significant changes, to reach 12606.8 thousand dal in 2010 and 12118.1 thousand dal in 2011. The income generated from wine and grape export in 2009 was 128.70 million USD, 137.87 million USD in 2010 and \$ 132.49 million in 2011.

Thus, the grape wine prevails in the structure of exports, which accounted for 96.4% in 2009, 98.0 in 2010 and 95.4% in 2011 of total wine exports.

Even though sparkling wine export increased from 286.4 thousand dal in 2009 to 428.9 thousand dal in 2011 or 1.5 times, it accounts for only 3.5% of total wine exports. Vermouth and other flavored wine export increased even more significantly, from 8.0 thousand dal in 2009 to 21.1 thousand dal or 2.64 times in 2011, but it accounts for only 0.001%.

The main consumer of our beverages has been and continues to be the Russian Federative Republic. In 1999, we sold more than four-fifths of wines from grapes and more than 90% of sparkling wines on its markets. In 2009, 2886.7 million dal were exported to the Russian market, accounting for only 30%, while in the year 2011 the exports to this market accounted for 20.9% of total wine exports. In the reference years, the Common Market was increasingly important for our country. Thus, the export of wine and grape must in 2009 accounted for 11.2% or 1079.4 mln dal in 2011 – 1470.0 mln dal or 12.1 percent of total exported wine and grape must.

In the last years, the import of alcoholic beverages was intensified, including those made from grapes. While in the year 2009, 47.3 thousand dal were imported, accounting for 4.9% of the wine and grape must exports (Table 15), in the year 2011 the imports increased to 273.9 thousand dal or 5.8 times, accounting for 27.4 percent of the wine exports.

Table 15  
Imports of wine from grapes

Indicators	2009		2010		2011	
	Thou dal	Smil	Thou dal	Smil	Thou dal	Smil
Wine and grape must	47.3	928.9	425.2	3163.3	273.9	2434.5
Including in: – EU	3.2	299.7	294.9	1806.1	237.1	2024.2
– CIS	-	-	3.9	89.5	-	-
– other countries	44.1	629.2	126.3	1267.7	36.8	410.3
Sparkling wine, total	2.3	236.8	5.9	382.1	7.4	527.6
Including in: – EU	2.3	236.8	3.6	331.7	6.2	503.1
– other countries	-	-	2.3	50.4	1.2	24.5
Wine from grapes, total	45.0	692.1	419.3	2781.2	266.6	1906.8
Including in: – EU	0.9	62.9	291.3	1474.4	230.9	1521.0
– CIS	-	-	3.9	89.5	-	-
– other countries	44.1	629.2	124.0	1217.3	35.6	385.8
Vermouths and other wines	6.7	189.9	10.0	335.3	12.7	482.7
Including in: – EU	6.6	188.4	9.6	325.9	12.7	482.7
– CIS	-	-	0.4	9.4	-	-
– other countries	0.1	1.5	-	-	-	-

Source: Foreign Trade of the Republic of Moldova, 2011.

The imports of wine from grapes firmly prevailed, accounting for 95.3% in 2009, 98.6% in 2010 and 97.3% of total imported wine. While in the year 2009 most imports (93.3%) came from countries that do not belong to either CIS or EU, in 2010 (68.5%) and in 2011 (84.3%) of all imported wines came from the EU member states.

Analyzing the causes that generated the alarming situation in this segment of the national economy, references are made to the negative effects of the agricultural reform and/or low winter temperatures or other natural disasters on vineyards.

Definitely, this is an indisputable truth, but not the only one. There are factors preferred not to be remembered, such as the decision on the so-called “battle with alcoholism” adopted in 1985 by the Communists, or the prohibition of wine from our country on the Russian Federation market by the authorities of this state, which is also happening this year.

One of the factors that determine the spatial orientation of trade is the price, which has to provide the balance of the consumers and producers’ interests. The vine and wine segment develops normally if the production price exceeds the production cost.

In the last years, a dangerous tendency in the ratio of costs to selling price was noticed on the domestic market. The selling price to cost ratio increased in the period 1995–2000 to reach 1.5 to 1 by the end of this period, it was 1.3 to 1 in 2005, to reach 0.97 to 1 in the year 2010. Obviously, this cost to price ratio cannot provide profitability to producers. It can even bring about losses and bankruptcy to producers.

The price on the foreign market is influenced by the developments taking place in the country to which the vine products are sold. The price of an exported decalitre of wine and grape must (Table 16) was down from 13.36 USD in 2009 to 10.95 USD in 2011.

*Table 16*  
The price of an exported and imported dal of grape wine, USD

Indicators	2009		2010		2011	
	Export	import	export	import	export	import
Wine and grape must	13.36	19.65	10.94	7.44	10.95	8.89
Including in: – UE	17.95	9.39	16.36	6.12	14.04	8.54
– CIS	12.98	-	10.31	2.28	10.23	-
– other countries	9.85	14.20	11.80	10.04	14.00	11.15
Sparkling wine, total	24.57	10.12	21.87	6.46	23.74	7.15
Wine from grapes, total	13.06	15.36	10.59	6.63	10.50	7.38
Other grape must	7.84	-	2.08	-	6.61	-
Vermouths and other wines	15.00	28.55	15.94	33.66	19.04	37.85

*Source:* Authors’ calculations based on selected information from the Foreign Trade of Moldova, 2011.

The price of a decalitre of wine exported to the European Union decreased from 17.95 USD in 2009 to 14.04 USD in 2011, or by 21.8%, and to CIS from 12.98 USD to 10.23 USD or by 21.2%. But the price of a decalitre of wine and grape must exported to the EU member states in 2009 was higher than that exported to the CIS countries, i.e. 38.3% and 37.24% respectively in 2011.

Thus, for our country, the EU market is more advantageous than the CIS market.

In order to ensure both the domestic and foreign market with food products it is necessary to obtain a stable and reliable production. Some of the important instruments that regulate the activity of farmers are taxes and fees in the first place.

In our country's agriculture income tax and land tax are applied, which fulfil regulatory and stimulating functions for the producer's activity. Definitely, the income tax decreased from 17853 thousand lei in 2006 to 1080 thousand lei in 2009. Land tax, which is equivalent to 1.5 lei per grade-hectare of agricultural land, regardless of income level, slightly decreased in the reference years.

The excise taxes and value added tax are of particular importance, which influence both the farmers' activity and the formation of revenues in the budget and extra-budgetary funds. In the structure of the taxation system of agricultural enterprises, the value added tax is on the first position, with 44% in 2006 and 59% in 2009, with an increasing tendency from 265.6 mil lei in 2006 to 435.8 mil lei in 2009.

The fiscal pressure on agriculture slightly increased from 14.4% in 2006 to 15.67% in the sales revenue in 2009. The share of agriculture contribution to the state budget is higher than the share of this sector in GDP, which reveals a relatively high tax pressure, obviously hampering the development of this very important segment of the national economy.

The situation in our country's agriculture is significantly influenced by grants, compensations and subsidies from the national budget, which increased from 76740 thousand lei in 2005 to 413354 thousand lei in 2009, i.e. 5.4 times.

The current system of subsidizing Moldovan agriculture, which can be characterized by the diminution / in actual value / of cash allocations and non-cash ad-hoc support, targets only short-term objectives and does not reflect the general objective to intensify agricultural development by correcting the market deficiencies.

Therefore, according to the authors' opinion, it is regrettable that in 2009 only 2.3% of total support was intended to offset expenses for planting perennial crops.

According to the State Budget Law for the year 2012, 775967.8 thousand lei are provided for the development of agriculture, representing 3.5% of total expenditures provided in the national budget. From the sum allocated to the development of agriculture, 40617.6 thousand lei (5.2%) are special means and 112561.2 thousand lei (14.5%) refer to projects financed from external sources.



The allocated amounts from the public budget for agricultural subsidies in our country do not cover the demand. In addition, the mechanisms of subsidy distribution to beneficiaries do not ensure equity, and the resources intended for subsidizing are not efficiently used either.

## CONCLUSIONS AND RECOMMENDATIONS

Following the study, we can draw the following conclusions:

1. The domestic demand, including food products, is limited by the number of consumers and their purchasing power, which obliges us to export.
2. The exports of agri-food products are on the rise while their share in total exports has a clear decreasing tendency.
3. The imports of agri-food products are increasing and the coverage of agri-food imports by exports is decreasing at a fast rate.
4. The enforcement mechanisms and levers used both on the domestic market and in the export and import of agri-food products are not efficient enough.

In order to change the situation on the market of agri-food products in our country we consider it appropriate:

1. To adjust our country's agricultural sector to the EU market demand.
2. To adapt the mechanisms and levers applied on the agri-food market of our country to the requirements of the EU Common Agricultural Market as follows:
  - to apply the “guaranteed price” which covers product costs and provides the necessary profit to farmers to renew the agricultural activities. When the quantity of agricultural products determines the price collapse on the market, the public authorities purchase (buy) from the agricultural producers the surplus of products at a guaranteed price for storage and/or processing and puts them up to sale when the market conditions are favourable;
  - to apply reduced VAT rates on water supply and other agricultural products consumed in our country's agriculture as well as to the basic food products;
3. In order to optimize national agriculture subsidies:
  - to stimulate the export of food products through preferential exchange rate. Each euro obtained from export is exchanged at a rate increased by 1-2 lei in relation to the existing one;
  - to waive the *ex ante* support / before obtaining the production / and *ex post* state intervention / after the production was obtained / the *ex post* support can be provided through two mechanisms:
    - the state subsidizes a part of the market price covering production costs;
    - the state subsidizes the production sold on the market and especially on the foreign markets;
    - the state purchases the production at the negotiated price that is higher than the cost.

The production is sold afterwards, to the processing industry inclusively, at a price that may be lower than that paid to farmers in order not to affect the population's purchasing power.

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