# CHANGES AND TRENDS ON VEGETABLES AND FRUITS' MARKET IN ROMANIA

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**Abstract:** The research of the present study describes the changes and trends on vegetables and fruits' market. In achieving this goal, a detailed analysis of supply, demand and prices was done. The results show that both supply and demand are increasing in 2006 compared to 2005. Also, in Romania, vegetables and fruits' supply is lower than demand; this is why imports are needed. The supply is unstable, this situation rising obstacles in organizing activities in this sector, for which concentrating production is needed for acquiring large quantities of merchandise. These conclusions have strong implications for both macro and micro economic levels. Chain operators may acquire a higher level of profit by knowing these trends. Policy makers may use these results in their efforts of elaborating strategies at macroeconomic level.

#### INTRODUCTION

The objective of this study is to identify the changes and trends on vegetables and fruits' market, in those regarding supply, demand and prices. The results answer the questions whether demand is higher than supply, whether they raised or fallen in the last years, and what are the prices' trends.

In achieving this purpose, demand, supply and prices of fruits and vegetables are analysed, using data delivered by the National Institute of Statistics of Romania.

Nowadays, fruits and vegetables' trade is unorganized by products and in time. This sector is not able to cover consumers' daily needs, especially in large cities. For underpinning a better organisation of vegetables and fruits' market, knowing the main elements of it – demand, supply and prices – is needed.

The demand decides how much and what to produce for markets. Potential demand is influenced by the patterns of consumption and physiological needs, while effective demand is influenced by the consumers' power of purchase. The supply of fruits and vegetables, as volume and structure, must correspond to the demand. It is influenced by the cultivated area, as quantitative factor, and yields, as qualitative factor.

### MATERIALS AND METHODS

In identifying the changes on vegetables and fruits' market, demand, supply and prices are analysed. The data are delivered by the National Institute of Statistic of Romania. They refer to total resources and total usages of vegetables and fruits, in 2005 and 2006. The resources contain production and imports and usages contain exports, consumption, losses and stocks.

### **RESULTS**

Vegetables' balance is presented in table 1, for 2005 and 2006. In 2006, the resources of vegetables increased as a result of production increase. Imports represent 10% of total supply in Romania, in 2006.

Vegetables and vegetables products' balance

Table 1

Table 2

Spacification	2005	2006	2006/2005
Specification	(tones)	(tones)	(%)
A. RESOURCES	3297065	3895131	118.1
1. Production	2932852	3497071	119.2
2. Import	364213	398060	109.3
B. USAGES	3297065	3895131	118.1
3. Export	25878	23667	91.5
4. Internal disponibilities for consumption	3271187	3871464	118.4
5. Partial consumption	125600	142708	113.6
5.1. Seeds	2363	3785	160.2
5.2. Feed	123237	138923	112.7
5.3. Industrial processing	-	1	-
6. Losses	363019	328197	90.4
7. Stock	-120001	38710	-
8. Human consumption	2902569	3361849	115.8

Source: Food balances. 2006. National Institute of Statistic of Romania.

The main usage of vegetables is consumption's disponibilities, accounting for 99%. The quantity of 23667 tones of vegetables exported represented only 0.6% of usages, in 2006, decreasing compared to 2005. Partial consumption of seeds and feed and human consumption increased in 2006 compared to 2005. Exports and losses decreased to 91.5%, respectively 90.4%.

Romanian trade balance for vegetables is in deficit, the imports exceeding the exports with 374393 tones.

In 2006, total resources of vegetables and vegetables products, including the stock, were higher than in 2005 with 478000 tones, as a result of production increasing with 564000 tones (table 2). The production of vegetables ensured 69.7% of the total resources. The imports ensured 7.9% in 2006, decreasing compared to 2005, when it ensured 8% of total resources.

Total resources of vegetables and vegetables products (thousand tones)

Specification	2005	2006
Resources	4540	5018
Stock	1243	1123
Production	2933	3497
Import	364	398

Source: Food balances. 2006. National Institute of Statistic of Romania

As show statistical data<sup>1</sup>, the import of vegetables was 16.8 times higher than the export. The import of tomatoes accounts for the largest part (52.2%). Large shares take the vegetables from the group "other vegetables" (21.9%) and onion (15.1%).

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<sup>&</sup>lt;sup>1</sup>Food balances. 2006. National Institute of Statistic of Romania, pg.7

Fruits' balance is presented in table 3, for 2005 and 2006. The resources of fruits increased from 2694849 tones in 2005 to 3145314 tones in 2006, as a result of imports' increasing. They rose to 135.3%, compared to the production that increased to 111.9% in 2006 compared to 2005.

Table 3 Fruits and fruits products' balance

Specification	2005	2006	2006/2005
Specification	(tones)	(tones)	(%)
A. RESOURCES	2694849	3145314	116.7
1. Production	2143113	2398926	111.9
2. Import	551736	746388	135.3
B. USAGES	2694849	3145314	116.7
3. Export	215779	86051	39.9
4. Internal disponibilities for consumption	2479070	3059263	123.4
5. Partial consumption	994319	1358645	136.6
5.1. Seeds	-	-	=
5.2. Feed	-	-	=
5.3. Industrial processing	994319	1358645	136.6
6. Losses	87959	98612	112.1
7. Stock	-244757	-193348	=
8. Human consumption	1641549	1795354	109.4

Source: Food balances. 2006. National Institute of Statistic of Romania

Human consumption represents the main usage of fruits -57%. Partial consumption increased to 136.6% and losses to 112.1%. Export decreased to 39.9%, from 215779 tones in 2005 to 86051 in 2006. Romania imports 746388 tones and exports only 86051 tones, meaning that the balance is in deficit.

Total resources of fruits and fruits products increased with 221000 tones in 2006 compared to 2005, as a result of increasing the production of grapes with 416000 tones and of increasing the import of fruits with 194000 tones (table 4).

Table 4
Total resources of fruits and fruits products (thousand tones)

Specification	2005	2006
Resources	3516	3727
Stock	821	582
Production	2143	2399
Import	552	746

Source: Food balances. 2006. National Institute of Statistic of Romania

The production of fruits has the larger share of total resources (64.4%) in 2006, increasing with 3.4% compared to 2005. The imports of fruits had a higher share of resources in 2006 compared to 2005 (+3.4%). The quantity of fruits exported was 2.5 times lower than in 2005. The stock of fruits ensured 16% of total resources, compared to 23% in the previous year.

As show statistical data<sup>2</sup>, the import of Mediterranean and exotic fruits had the largest share in the total import of fruits (74%). In those regarding domestic fruits, apples accounted for the largest share (12%). Apples accounted for the largest share in export, as well (46.8%).

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<sup>&</sup>lt;sup>2</sup>Food balances. 2006. National Institute of Statistic of Romania

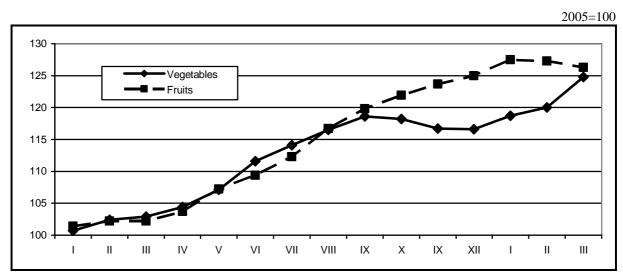
The prices of products have the role of orienting supply and demand. It is established free on the market, as a result of producers and consumers' negotiations, considering the balance supply/demand. The demand for vegetables and fruits is expressed constantly during the year, while the supply is present only in seasons (summer and autumn), when prices are low. Except these seasons, during winter and early in the spring, the prices of vegetables and fruits increase (table 5 and graph 1).

Indexes for prices of vegetables and fruits

Table 5 2005=100

Product		2007										2008	
Floduct	III	IV	V	VI	VII	VIII	IX	X	IX	XII	I	II	III
Vegetables	102.9	104.4	107.1	111.6	114.1	116.5	118.6	118.2	116.7	116.6	118.7	120.0	124.8
Fruits	102.2	103.7	107.2	109.4	112.3	116.7	119.8	121.9	123.7	125.0	127.5	127.3	126.3

Source: Statistical Book for Prices, National Institute of Statistic of Romania, 2008



Source: Statistical Book for Prices, National Institute of Statistic of Romania, 2008

Figure 1

Evolution of indexes for prices of vegetables and fruits, in the period January 2007- March 2008

The prices for the main vegetables and fruits on the markets in some important cities of Romania are presented in table 6. It can be noticed that for each type of vegetables and fruits, the prices vary from one region to another, even inside the region from one district to another, because of different natural conditions of growing vegetables and fruits.

The prices on detailed markets for vegetables and fruits, May 2008

Table 6

- lei/kg -

Town – centre		Vegetables Fruits						its
of the development area	Cabbage	Dry onion	Carrots	Tomato	Pepper	Cucum- bers	Apples	Pears
Alba (Centre)	2 - 3	2 - 3	2 - 3	6 – 6.5	9.5 - 18	3 – 4.5	3 - 5	7 – 8.5
Braila (S-E)	-	1.5 - 2	1.5 - 3	-	-	-	2.5 - 4.5	5 - 7.5
Bucharest (Bucharest)	-	1.5 - 2.5	2 - 3	5.5 - 7.5	-	4.5 - 6	2 - 4.5	5 - 8.5
Calarasi (S Muntenia)	1.5 - 3	1.5 - 3	1.5 - 2.5	4 - 5	10 - 11	5.5 - 6.8	3.5 - 5.2	4 - 6.8

Cluj (N-W)	2 - 3	2.5 - 3	2.5 - 3.5	-	-	-	2.5 - 4	-
Dolj (SW Oltenia)	1.5 - 3	1 - 2	1.5 - 2.5	4.5 - 5.5	-	4.5 - 5	3.5 - 4.5	4.5 - 5.5
Neamt (N-E)	-	1.2 - 1.8	1.1 - 2	5 - 6	-	4 - 5	1.5 - 4	-
Timis (West)	1.1 - 2	1.4 - 1.5	2 - 2.1	6.5 - 7.1	8.2 - 10	5.5 - 5.9	2.5 - 3.3	6 - 8

Source: Statistical Book for Prices, National Institute of Statistic of Romania, 2008

The prices for vegetables and fruits are influenced by many factors, as follows:

- Costs of production, considering that prices must cover firstly the expenses made for producing the products;
- Seasonal character of vegetables and fruits' production, compared to the continuous character of demand. It results higher prices in winter and spring. This is a reason why farmers produce vegetables in these periods as well for getting more money of it;
- The production of vegetables and fruits is obtained in certain areas. This is a reason why prices may vary from one region to another. This phenomena stimulates producers from areas where fruits and vegetables have good natural conditions to obtain products with high efficiency and sell them at higher prices in other regions (where demand is higher than supply);
  - Fruits and vegetables' quality;
  - The degree of fruits and vegetables' freshness;
- Products' destination. Thus, products designated to final consumption have higher prices than those designated to processing.

#### **CONCLUSIONS**

Important changes develop on vegetables and fruits' market. As a result, prices vary from one region to another, from one year to another and from one product to another.

Prices of fruits and vegetables vary on the market, because of different levels of costs of production, of seasonal character of vegetables and fruits' production, compared to the continuous character of demand, fruits and vegetables' quality, the degree of fruits and vegetables' freshness, and products' destination.

Thus, prices are influenced by the levels of supply and demand. As shown in the statistical data, demand is relatively stable in time, while supply varied from one year to another, as a result of weather conditions and differences in yields.

Production, imports and consumption of vegetables and fruits increased, while exports decreased. This result has serious implications upon external trade balance. The deficit will be even larger if no measures for balancing and organising the market are taken.

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