

## ROMANIAN TRADE WITH POTATOES IN THE EUROPEAN UNION CONTEXT

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### **Abstract**

*The scope of this study was to highlight Romania's position within the existing community context, in the period 2011-2016. Thus it is noted that our country obtained only 5.53% of total community production that is 3,123,363.33 t compared to 56,439,851.67 t in the EU, it achieved 0.07% of the value of exports (\$ 1,721.17 compared to \$ 2,645,692.33 in the EU, its import value accounts for 1.13% of the EU potato import value, that is \$ 26461.50 compared to \$ 2347447.83. The national trade balance for potatoes is deficient, similar with the European Union situation. Romania can improve its production and international trade results through appropriate measures to support the respective production sector (i.e. potato production).*

**Key words:** potatoes, production, import, export, trade balance, Romania

### **INTRODUCTION**

The importance of potato production for Romania derives from the following aspects: it is basic food in daily nourishment, human consumption being estimated at approximately 90 kg/inhabitant; potatoes can be kept for a long time in the winter; occupies one of the first places in terms of caloric energy consumption; it has high energy potential; potatoes are also used in animal feed [5].

Potato production it is important for many sectors such as food, industrial, agro-technological, fodder. It is a source of export and profit. The export includes early and extra time potatoes kept in qualitative conditions that give them competitiveness. Also it can be exported as food products resulting from the industrial processing of potatoes. By knowing the external market parameters effectively, potatoes can attract significant currencies [10].

Potato ranks fourth in production volume on food crops in the world (after rice, wheat and maize). The three main producers are China, Russia and India. Romania is also a major producer of potatoes in Eastern Europe, it produces about 4 million tonnes per year [13].

Adoption of best practice systems for production and management of systems for monitoring the technical and economic results, with innovative approaches, will ensure the proper functioning of the agri-food chain, and implicitly market competitiveness [3].

International trade allows manufacturers and distributors to search products, services, and components produced in foreign countries. Companies acquire them because of cost advantages or advanced technical methods used abroad such as methods that reduce the cost of production, lower prices, induce more consumption thus leading to increased profit [11].

Nationwide potatoes production is a key component for the market because the demand for this product is large, Romanian people being big consumers [12].

Foreign trade exerts an important influence on economic growth [6]. Trade balance is a component part of the current transactions balance [2].

The purpose of the study was to analyse the situation of potato trade in Romania compared to the European Union in recent years.

## MATERIALS AND METHODS

The information required for writing the paper was gathered by accessing databases with increased visibility [15; 16]. The indicators used are: total production (t), export (t and thousands USD), import (t and thousands USD) and trade balance (export value-import value). The studied period is 2011 - 2016, and for the construction of the dynamic series the average of the period was also calculated.

The methods used in the study were the documentation, the comparison, the percentage method. The time comparison was performed using the mobile base indices calculated with the formula:

$$I_{bm} = (y_n/y_{n-1})100,$$

where:  $y^n$  - the level of the indicator for the variable to be compared;  $y^{n-1}$  - the level of the indicator for the reference variable [9].

The comparison in space of the used indicators followed the reporting of the Romanian level at the European Union level.

## RESULTS AND DISCUSSIONS

Romania is among the first 20 potato producers in the world. It is, also, one of the few European countries where the potato production has increased - from 2.8 million tons in 1961 to approximately 4 million tons in 2005, reaching in 2010 at 3.2 million tons [1].

In order to carry out a comprehensive analysis of the Romanian trade with potatoes, it is considered necessary to present the situation of total production at national level in the studied period. Also, for a more conclusive analysis, the Romanian economic reality is presented in the context in which Romania is a component part of the European Union. Romania had an agricultural potential of 6,45 million hectares arable land at the level of the year 2013 [8].

In Table 1 it is presented the evolution of potato production at national and European Union level.

Table 1. Potato production in Romania and European Union, 2011 - 2016 ( kg)

| Year | Specification      | Romania   | European Union |
|------|--------------------|-----------|----------------|
| 2011 | T.*                | 4,076,570 | 62,651,700     |
|      | % total Europe**   | 6.51      | -              |
|      | T.*                | 2,465,150 | 53,919,930     |
| 2012 | 2012/2011** (%)    | 60.47     | 86.06          |
|      | % total Europe**   | 4.57      | -              |
|      | T.*                | 3,289,720 | 53,881,400     |
| 2013 | 2013/2012** (%)    | 133.45    | 99.93          |
|      | % total Europe**   | 6.11      | -              |
|      | T.*                | 3,519,330 | 59,035,570     |
| 2014 | 2014/2013** (%)    | 106.98    | -              |
|      | % total Europe**   | 5.96      | 109.57         |
|      | T.*                | 2,699,680 | 53,238,320     |
| 2015 | 2015/2014** (%)    | 76.71     | 90.18          |
|      | % total Europe**   | 5.07      | -              |
|      | T.*                | 2,689,730 | 55,912,190     |
| 2016 | 2016/2015** (%)    | 99.63     | 105.02         |
|      | % total Europe**   | 4.81      | -              |
|      | Average**          | T.**      | 3,123,363.33   |
|      | Average/2016** (%) | 116.2     | 100.94         |
|      | % total Europe**   | 5.53      | -              |

Sources: \* Eurostat; \*\* own calculation

At national level, total potato production varied between 2.46 million tons in 2012 and 4.07 million tons in 2011, and the average of

the period studied reached 3.12 million tons. The dynamics of the indicator highlights subunit values of component indices (between

60.47% in 2012 and 76.71% in 2015) as well as supraunitary values in 2013 of 133.45% and 106.98% in 2014.

The average of the period was also supraunitary 116.2% (Figure 1).

The European Union achieved an average of 56.4 million tons, a higher level of only 0.94% compared to the reference period (2016 when there were produced 55.9 million tons).

The variation limits for the indicator were 53.2 million tons and 62,6 million tons for the years 2015 and 2011 respectively. The dynamics of the indicator shows decreases compared with the reporting base in 2012 (-13.94%, at a level of 53.9 million tons of potatoes produced) and -9.82% in 2015. It can be seen increases with 9.57% in 2014 and 5.02% in 2016.

In the context of belonging to the European Union, Romania achieved only 5.53% of the community potato production (the average of the period). This average contribution is based on annual sequential levels of the Romanian contribution to total European Union production of: 6.51% in 2011, 4.57%, 6.11% in 2012 and 2013, 5.96%, 5.07% and 4.81%, 2014, 2015 and 2016.

The European Union focuses on free trade at the level of the community economic policy. Free markets generate economic growth and more and better jobs for Europe and its country partners. The Union encourages developing countries to use trade to improve their own economies and living standards [7]. Table 2 presents the situation related to Romanian and European Union potato exports.

Concerning the value of the Romanian potato exports, it had variation limits of \$ 235 thousand in 2015 and \$ 3,658 thousand in 2013, and the average of the period was \$ 1,721.17 thousand.

The dynamics of the indicator comprises mostly sub-unit levels of component indices (32.68% for 2012 and 39.53 % for 2014, the lowest being 16.25 in 2015), and a higher level for 2013 with 341.23% followed also by 2016 with 270.64% (Table 2) and 270.62% for the average of the period respectively.

Table 2. Export of potatoes, 2011–2013, ( USD thousand)

| Year          | Specification    | Romania  | European Union | % Romania towards Europe |
|---------------|------------------|----------|----------------|--------------------------|
| Value aspects |                  |          |                |                          |
| 2011          | Th. \$*          | 3,280    | 3,062,463      | 0.11                     |
| 2012          | Th. \$*          | 1,072    | 2,345,604      | 0.05                     |
|               | 2012/2011** (%)  | 32.68    | 76.59          | -                        |
| 2013          | Th. \$*          | 3,658    | 3,343,996      | 0.11                     |
|               | 2013/2012** (%)  | 341.23   | 142.56         | -                        |
| 2014          | Th. \$*          | 1446     | 2,497,371      | 0.06                     |
|               | 2014/2013** (%)  | 39.53    | 74.68          | -                        |
| 2015          | Th. \$*          | 235      | 2,089,454      | 0.01                     |
|               | 2015/2014** (%)  | 16.25    | 83.67          | -                        |
| 2016          | Th. \$*          | 636      | 2,535,266      | 0.03                     |
|               | 2016/2015** (%)  | 270.64   | 121.34         | -                        |
| Average**     | Th. \$           | 1,721.17 | 2,645,692.33   | 0.07                     |
|               | Average/2016 (%) | 270.62   | 104.36         | -                        |

Source: \*.intracen.org; \*\*.own calculation

European Union recorded an average value of exports of \$ 2.64 million (+4.36% in dynamics).

This fact was determined by the annual export values ranging from \$ 2.08 million in 2015 to \$ 3.34 million in 2013.

As a result of this situation, the components indices of the dynamics were between 74.68% in 2014 and 142.56% in 2013 and respectively 104.36% for the average of the period (Figure 1).

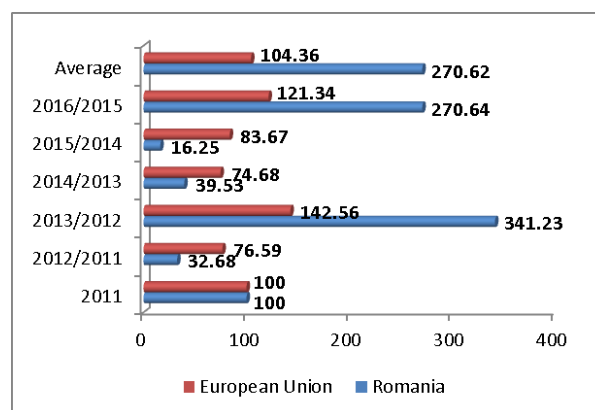


Fig. 1. Export of potatoes (Th. \$) - dynamic (%)

Source: own calculation based on data available at www.intracen.org

Table 3 refers to the import trade operations carried out by Romania and European Union. In terms of value, Romania achieved shares between 0.82% in 2013 and 1.55% of imports in 2016 compared to European Union. The

share for the average of the period was 1.13% of the total European Union potato imports.

Romanian potato imports registered the highest value of \$ 36,539 thousand in 2016 (+217.75%), followed in decreasing order by year 2011 with \$33,110, then 2014 with \$ 25,901 thousand (having a little increase of 100.19%), and 2013 with a value of \$ 25,853 thousand (+125.59%).

Table 3. Import of potatoes (2011–2013)

| Year          | Specification    | Romania   | European Union | % Romania towards European Union |
|---------------|------------------|-----------|----------------|----------------------------------|
| Value aspects |                  |           |                |                                  |
| 2011          | Th. \$*          | 33,110    | 2,557,090      | 1,29                             |
| 2012          | Th. \$*          | 20,586    | 2,100,004      | 0,98                             |
|               | 2012/2011** (%)  | 62.17     | 82.12          | -                                |
| 2013          | Th. \$*          | 25,853    | 3,162,309      | 0,82                             |
|               | 2013/2012** (%)  | 125.59    | 150.59         | -                                |
| 2014          | Th. \$*          | 25,901    | 2,096,750      | 1,24                             |
|               | 2014/2013** (%)  | 100.19    | 66.30          | -                                |
| 2015          | Th. \$*          | 16,780    | 1,807,953      | 0,93                             |
|               | 2015/2014** (%)  | 64.79     | 86.23          | -                                |
| 2016          | Th. \$*          | 36,539    | 2,360,581      | 1,55                             |
|               | 2016/2015** (%)  | 217.75    | 130.57         | -                                |
| Avg **        | Th. \$           | 26,461.50 | 2,347,447.83   | 1,13                             |
|               | Average/2016 (%) | 72.42     | 99.44          | -                                |

Source: \*Intracen.org; \*\* own calculation

The average of the period registered \$ 26,461.50 thousand (- 27.58% compared to the previous term of the dynamic series -

Figure 2). It is noticed that in 2016 the value of potato imports has doubled compared to 2015. This may be due to declining crop areas, from 242,636 ha in 2011, to 2016 at 182,239 ha [15]. Some authors consider that Romania is an importing country of potatoes[4]. At European Union level there is an average import value of \$ 2.34 million, with limits of \$ 1.80 million in 2015 and \$ 3.16 million in 2013. The dynamics of the indicator contains two supra-unitary values (150.59% in 2013 and 130.57% in 2016) and three subunit values (82.12%, 66.30% and 86.23% in 2012, 2014, 2015), the average of the period being 99.44% (Figure 2).

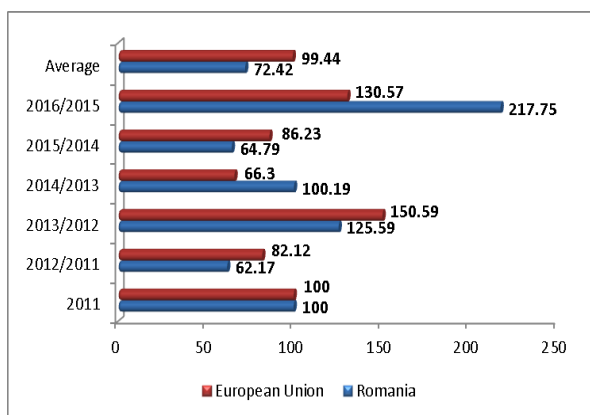


Fig. 2. Import of potatoes (Th. \$) - dynamic (%)  
Source: own calculation with data from Intracen.org

Table 4. Balance of foreign trade at potatoes - thousands \$ in the studied period \* own calculation

| Year    | Specification | Export       | Import       | ±          | % Romania towards European Union |
|---------|---------------|--------------|--------------|------------|----------------------------------|
| 2011    | Romania       | 3,280        | 33,110       | -298,30    | -5.90                            |
|         | E. U          | 3,062,463    | 2,557,090    | 505,373    |                                  |
| 2012    | Romania       | 1,072        | 20,586       | -19,514    | -7.95                            |
|         | E. U.         | 2,345,604    | 2,100,004    | 245,600    |                                  |
| 2013    | Romania       | 3,658        | 25,853       | -22,195    | -12.22                           |
|         | E. U.         | 3,343,996    | 3,162,309    | 181,687    |                                  |
| 2014    | Romania       | 1446         | 25,901       | -24,455    | -6.10                            |
|         | E. U.         | 2,497,371    | 2,096,750    | 400,621    |                                  |
| 2015    | Romania       | 235          | 16,780       | -16,545    | -5.88                            |
|         | E. U.         | 2,089,454    | 1,807,953    | 281,501    |                                  |
| 2016    | Romania       | 636          | 36,539       | -35,903    | -20.55                           |
|         | E. U.         | 2,535,266    | 2,360,581    | 174,685    |                                  |
| Average | Romania       | 1,721.17     | 26,461.50    | -24,740,33 | -8.30                            |
|         | E. U.         | 2,645,692.33 | 2,347,447.83 | 298,244,50 | -                                |

Source: Own calculation.

After 2000, Romania is characterized by a deficitary trade balance for potatoes. In the

period 2001-2007, the trade balance for potatoes was deficient, mainly due to imports

of potatoes from Poland and Greece [14].

The trade balance situation for potatoes in the period taken in study is presented in Table 4 and Fig.3.

Thus, in 2011, Romania registered trade deficits (\$ -29,439 thousand). Romania held 5.90% of the deficit of the European Union trade.

For 2012, Romania achieved a deficit of -7.95% in the European Union trade (\$ -19,514 thousand compared to the surplus of \$ 245,600 thousand in European Union).

In year 2013, the trade balance deficit is maintained at the national level -22,195 thousand dollars while the European Union level registered a surplus of \$ 181,687 thousand respectively.

The Romanian share of deficit was -12.22% at the level of the European Union. In the years 2014 and 2015 there was also a trade deficit in the share of -6.1% and -5.88%, respectively. The highest deficit Romania has held was in 2016 when it amounted -35,903 thousand dollars, which represents a share of -20.55% at community level.

If we refer to the recorded situation for the average of the period there are found deficits of \$ -24,740 and \$ 298,244 thousand for Romania and for European Union respectively. Romania has -8.30% deficit in the overall level of the community trade balance. This deficitary balance can be explained by the reduction of the potato areas and the unfavorable evolution of the sales price [15].

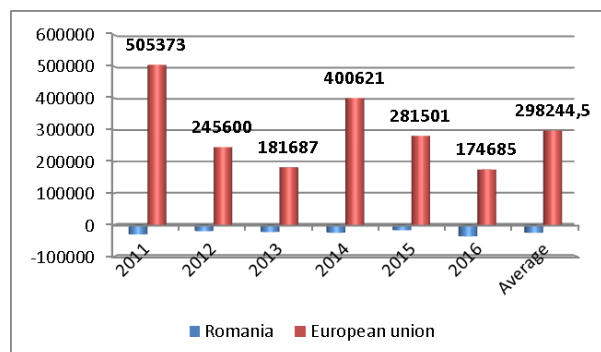


Fig. 3. The trade balance of foreign trade ( USD thousands)

## CONCLUSIONS

In terms of total production, it can be seen the

non-uniform evolution for the national situation and European Union with downward trend. Romania's contribution to total community production is 5.53% below the average contribution rate under the existing potential. As a result, appropriate measures are needed to support this sector of activity.

The evolution of Romanian and European Union exports is fluctuating in terms of value. Romania exported only 0.07% of national production compared to European Union. As a result, it can be concluded that the Romanian potato producers have to pursue the improvement of the qualitative parameters necessary for the exports.

Regarding the evolution of Romanian potato imports is also fluctuant with upward aspects regarding the value (negative aspect). At the community level, the trend of imports is also fluctuant in terms of value. The Romanian potato imports were at 1.13% compared to the total community production.

The trade balance is strictly deficient at national level and has a surplus at European Union level. For a high economy (higher incomes from potato exports) Romania needs to become competitive at European level.

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