# THE POTENTIAL OF MOLDOVA'S PRODUCTS ON GLOBAL AGRI-FOOD MARKETS

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#### Abstract

Competitiveness is regarded as the main source of export development on international markets. For Moldova, agrifood products are main exports commodities and represent about 45% in total amount of exported merchandises. In this paper we analyze the Moldova's agrifood sector. The goal is to analyze the potential of Moldavian commodities on global agrifood markets and to assess the level of trade specialization. For research analysis data from the National Bureau of Statistics was used. The data analyzes the four sections of products and the 24 groups of commodities HS 2012 (belonging to agrifood products). The period researched is referred to the years 2001-2016. The assessment of trade advantages is carried out through the index of international specialization (RTA index). The results will allow to reveal the commodities with highest advantages for exports, to consolidate and improve Moldova's situation on global agrifood markets.

Key words: agri-food products; specialization; trade.

## INTRODUCTION

The intensity of global trade flows had increased during the last decades. Still, the position of important exporters and producers belong to developed countries. Often they are also net exporters/producers. In the same time, the economies in developing countries had improved and allowed many of them to specialize and to gain important position among the main exporters of agri-food profitability, products [7]. For best buyers/importers tend to buy from the markets with best price for products marketplace. The exporters also will consider the market that offers the most advantageous price for products [1].

Competitiveness is regarded as a key issue on global markets and the main source for country's export development. The ability for a country to use the most efficient its resources in the agricultural sector allows it to fully benefit from comparative advantage on global agricultural markets [9].

The specialization of exports focuses primarily on important dynamic chapters in global markets. In order to take advantage from specialization and avoid some

vulnerabilities that may arise and cause the loss of market share is important to increase the customers of domestic products and to diversify on markets with potential for exports [5].

The goal of the given research is to appreciate Moldova's situation with agricultural and food products on global markets, considering the foreign trade activity as the main indicator. This research focuses on the assessment of relative trade advantages through an international specialization index. The tendencies and changes that took place in agricultural and food trade structure and their territorial distribution is appreciated.

### MATERIALS AND METHODS

The research is based on secondary data from the National Bureau of Statistics. The paper examines the changes in Moldova's agricultural and food trade commodities both in their structure and territorial distribution. The period considered for analysis belongs to 2001-2016. the structural changes For analysis of agricultural and food trade commodities the international nomenclature for the classification of products Harmonized Sections (HS) in two digits (4 sections and 24 chapters referred to agricultural and food products). The agri-food products are separated into two parts: agricultural products (01-15) and foodstuffs (16-24).

The given research analysis appreciates Moldova's specialization in agricultural and food products in relation to main trade partners: European Union (EU) and the Commonwealth of Independent States (CIS) countries. The analysis is based on the results of Relative Trade Advantages (RTA) index.

Relative Trade Advantage (RTA) index was developed and introduced by Vollrath (1991) and is calculated as "the difference between relative export advantage (RXA) and relative import advantage (RMA)" [5]:

$$RTA = RXA - RMA$$
 (1) where,

$$RXA = B = (X_{ij}/X_{it})/(X_{nj}/X_{nt});$$
 (2)

RMA = 
$$(M_{ij}/M_{it})/(M_{nj}/M_{nt});$$
 (3)

Where M represents import, i - a country; j - a commodity; t - a set of commodities; n - a set of countries [8].

The values over zero of the RTA index refers to country's comparative trade advantages, while negative values indicates the existence of comparative trade disadvantages. When the RTA index registers values over zero, then for the sector a comparative advantage is revealed, which suppose that this sector is relatively more specialized and competitive in terms of trade.

# **RESULTS AND DISCUSSIONS**

In Moldova, agriculture and food industry has a particular importance in national economy. This fact is determined by the high share that the agricultural sector and food industry maintain in the Gross Domestic Product (GDP) (about 35%). Also, agricultural products and foodstuffs represent Moldova's major export commodities in total amount of exported goods (about 45%). According to the data from the National Bureau of Statistics, over 30% of active population is employed in the agricultural sector and almost 50% lives in rural areas (NBS, 2016).

Considering that agri-food commodities still have a large share in exports over the 2001-2016, a decreasing trend is observed. This diminishing tendency had influenced also the agri-food trade balance, so far maintained positive (Figure 1). Analyzing the dynamics in Moldova's foreign trade activity, during 2001-2016, an increasing tendency in both exports and imports is observed. The value of exports and both had increased, but the overall trade balance persist negative (mainly due to high imports of energy and gas resources).

Analyzing the trend and changes in agri-food trade flows dynamics is observed an increasing

tendency in agri-food exports value from 356,857 thousand USD in 2001 to 2,044,611 thousands USD in 2016. During 2006-2007 a more remarkable decrease in agri-food exports occurred. This decrease was the result of Russia's applied sanctions on Moldavian alcoholic drinks. Until 2007 C.I.S. countries were the main trading partners for Moldova's exports and the Russian market was the main destination for many Moldavian agricultural products. The first interdiction applied as well as the following embargoes determined the reorientation to other markets, particularly the European Union countries [2]. Thus the territorial distribution of agri-food trade flows experienced serious changes after 2006. (Figure 2, 3).

Due to the above mentioned facts, since 2007 changes in the global distribution of Moldova's trade flows occurred. Thus closer collaboration with E.U. market prevails other trade partners. among precondition for this accentuated increase in trade flows with E.U. market was generated by several trade facilities negotiated. First facilities in 2006 were obtained with E.U. market under General System of Preferences (GSP) and General System of Preferences plus (GSP+), followed by the Autonomous Trade Preferences (ATP) in 2008. Under these facilities were allowed preferences for some agricultural and food commodities.

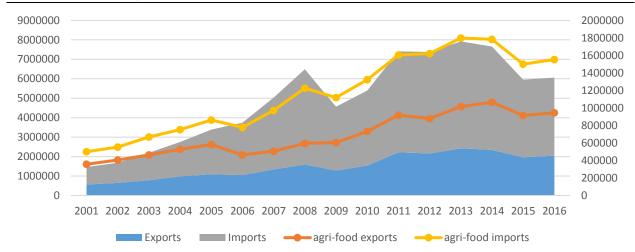


Fig. 1. Dynamics of Moldova's foreign trade, 2001-2016 Source: own calculations based on the data from [6].

Among them were the alcoholic drinks, sugar and some agricultural products [4]. The decision of Moldova to sign the Deep and Trade Comprehensive Free Agreement (DCFTA) with E.U. in 2013 generated more interdictions from Russian Federation on wine exports. Nevertheless, since 2014 Moldova signed the DCFTA with E.U. that suppose a higher degree of mutual trade liberalization benefit local exporters possibilities to access a large and developed market [3].

Nevertheless the access to this developed and competitive market imposes serious barriers to trade for local producers. This is particularly affecting trade due to quality and food safety requirements on the E.U. market. Thus, for fully benefitting from the obtained facilities is required a boost in the competitiveness of the traded agri-food commodities.

The agri-food commodities exports on the European market increased considerably by eight times during the referred time series (from 62,425 thousands USD in 2001 to 537,857 thousands USD in 2016). In the same time, the agri-food exports to CIS countries decreased during 2011-2016 with 40% (from 276,255 thousands USD to 173,891 thousands USD). The agri-food trade flows related to other countries (particularly OECD) also increased (Figure 2).

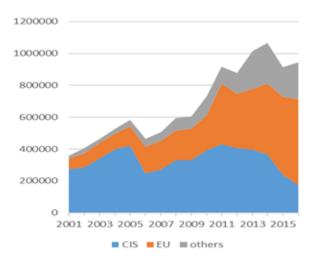


Fig. 2. Structure of agri-food exports territorial distribution, 2001-2016 Source: own calculation.

Close trade relations are maintained with Romania on the European market, also being the main trade partner among E.U. countries. Other important trade partners on the E.U. market are Italy, United Kingdom, Germany, Poland, France, Greece and Austria. These countries concentrate the majority of agrifood exports flows (over 80%).

The situation of agri-food products trade flows also registered a boost during the analyzed time series. In 2001-2016 the imports of agri-food commodities from European markets increased from 69,980 to 249,848 thousands USD. From C.I.S. markets the imports of agricultural and food products also increased from 27,698 to 247,842 thousands USD (Figure 3).

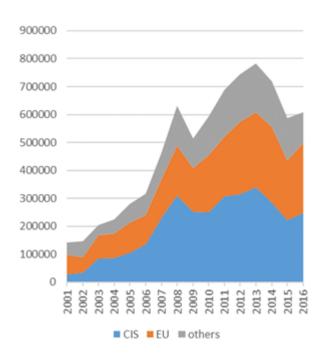


Fig. 3. Structure of agri-food imports territorial distribution, 2001-2016 Source: own calculations.

From the structure of traded agri-food sections, both for exports and imports, the largest share belongs to prepared foodstuffs, beverages, spirits and tobacco (more than half in the share of agri-food exports but also a considerable large share in imports). A smaller but still considerable share is maintained by the section of vegetable products (particularly at export). Smaller shares belong to animal or vegetable fats and oils and live animals (Figure 4).

Among the main exported agricultural and food commodities on the leader position are situated HS22 – Beverages, spirits and vinegar, followed by HS08 – Edible fruits and nuts; HS12-Oil seeds and oleaginous fruits and HS10 - Cereals (Figure 5). Together they have a share on 68% in Moldova's agri-food exports.

Concerning the structure of Moldova's agrifood imports, it includes a diverse number of commodities but with smaller shares. The top eight imported agrifood commodities concentrate a share of over 50 percent in total agrifood imports. The leader position belongs to HS24 – Tobacco (12%), followed by HS22 – Beverages (9%) and HS21 – miscellaneous edible preparations (8%) (Figure 6).

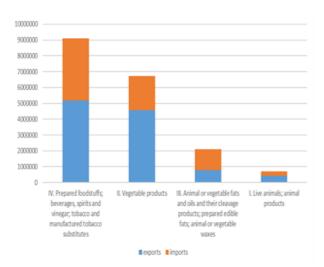


Fig. 4. Structure of agri-food trade, 2001-2016 (average)

Source: own calculations

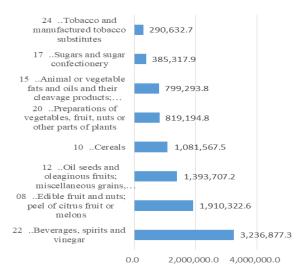


Fig. 5. Structure of the main exported commodities, average 2011-2016

Source: own calculations

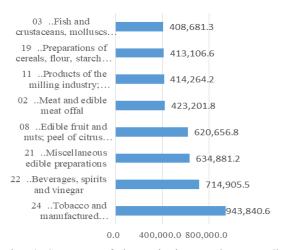


Fig. 6. Structure of the main imported commodities, average 2011-2016 Source: own calculations

Specialization of Moldova's trade in agricultural and food commodities was assessed over the long run based on the index of international specialization results (RTA). The results were calculated in relation to European market (E.U. countries) and traditional market (C.I.S. countries) (Figure 7).

Despite the fact that in relation to European markets most groups of products register advantages, a decreasing tendency is persistent after 2010. In 2016 disadvantages for beverages and animal or vegetable fats and oils are observed (Figure 7). The negative values refers to the absence of trade advantages related to the group of beverages and prepared foodstuffs and vegetable or animal fats and oils in the last two years was caused by the increased amounts in imports of these two groups of products.

Concerning the trade relations with traditional markets (C.I.S. countries), for all groups of agri-food products decreasing values and disadvantages are noticed after 2006 (Figure 8). It was mainly due to the restrictions applied to some agri-food commodities since the first Russian embargo. It continued under a period of recession until 2010-2011 when an increase in the RTA index is observed. Particularly after 2011 high trade advantages for the groups of prepared foodstuffs, beverages and tobacco, animal and vegetable fats and oils is observed. The tendency is opposed to the trade relation with European markets.

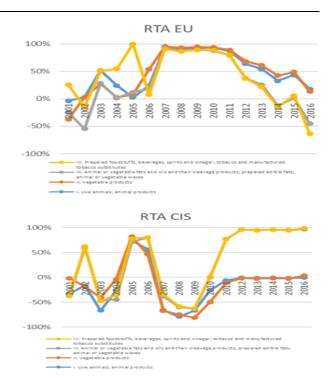


Fig. 7. Results of international specialization index for groups of agricultural and food products in relation to European and CIS market

Source: own calculations

The results of the index of international specialization on the two markets (EU, CIS) for agricultural products (HS 01-15) and food products (HS 16-24) present contradictory results (Figure 8). The same disadvantages are characteristic for both E.U. and C.I.S. market regarding agricultural products (HS 01-15). For European market total advantages are maintained for food products, while CIS countries present low values and disadvantages, particularly in the recent years.

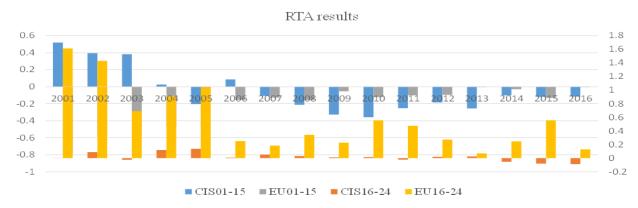


Fig. 8. Results of international specialization index for agricultural and food products in relation to European and CIS market.

Source: own calculations

#### CONCLUSIONS

Important changes regarding the dynamics of the agri-food trade flows were observed during the researched time series. Increasing trade flows for both exports and imports are registered Also during 2001-2016 important changes are noticed in the structure of traded commodities and territorial distribution on the main trading global markets. In both agri-food exports and imports the leading position is maintained by prepared foodstuffs, beverages, spirits and tobacco. The top exported agrifood products are beverages, edible fruits and nuts, oil seeds and oleaginous fruits and cereals. The imports are more diverse, the largest share belongs to tobacco beverages.

For both European and C.I.S. market disadvantages are characteristic in relation to agricultural products (HS 01-15). European total advantages market maintained for food products, while C.I.S. countries present low values disadvantages, particularly in the recent years. In relation to European market most groups of products register advantages, a decreasing tendency is persistent after 2010. In 2016 disadvantages for beverages and animal or vegetable fats and oils are observed

On the C.I.S. market, for all groups of agrifood products decreasing values and disadvantages are observed. Recent years high trade advantages for the groups of prepared foodstuffs, beverages and tobacco, animal and vegetable fats and oils is observed.

# REFERENCES

- [1] Dinu, T. A., Arghiroiu, G. A., Stoian, E., Darie, O. D., Pătrașcu, G., 2012, The Romanian external trade in sugar and confectionary products. AgroLife Scientific Journal, Vol.12(1): pp 202-206.
- [2] Cimpoies, L., Coser, C., 2017, Intra-industry trade in agricultural and food products: the case of Moldova. Scientific Papers Series "Management, Economic Engineering in Agriculture and rural development", Vol. 17(2): pp 43-50.
- [3]Cimpoies, L., Sarbu O., 2017, The competitiveness of agricultural and food products of Moldova on the foreign markets: aspects and tendencies. Agrofor International Journal vol. 2(3): pp 132-139

- [4]Cimpoies, L., 2013, Agri-food trade a path to agricultural development of Moldova. Scientific Papers Series "Management, Economic Engineering in Agriculture and rural development", Vol. 13(2): pp 49-56.
- [5] Grande Garcia, M. J., Morales Lopez, J. M., 2015, The agri-food trade in Spain: specialization and international competition. 55th Congress of the European Regional Science Association: "World Renaissance: Changing roles for people and places", Lisbon.
- [6]National Bureau of Statistics, 2016, Statistical Yearbook of the Republic of Moldova 2016.
- [7]Popescu, A., 2015, Some considerations on the world agri-food trade and the positions of the EU-28. Scientific Papers Series "Management, Economic Engineering in Agriculture and rural development", Vol. 15(4): pp 247-256.
- [8] Vollrath, T.L., 1991, A theoretical evaluation of alternative trade intensity measures of revealed comparative advantage, Weltwirtschaftliches Archiv, Volume 127(2): p.265-280
- [9]Yercan, M., Isikli, E., 2006, International competitiveness of Turkish agriculture: a case for horticultural products. EAAE seminar "Marketing dynamics within the global trading system: new perspectives", Chania, Crete, Greece.

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