Trade comparative analysis: Republic of Moldova and other relevant countries

Tănase STAMULE

*The Bucharest University of Economic Studies, Bucharest, Romania;
tanase.stamule@fabiz.ase.ro*

Abstract. *The paper plans to analyze the evolution and structure of trade of the Republic of Moldova between 2005 and 2015, its weight correlated with that of other important trade partners and its potential for development. In the first part we will make a comparative analysis between the overall exports and imports of Moldova towards the EU and CIS, also from a perspective of evolution and structure. We want to see the main categories of products that are exported from Moldova and also the main products that are imported and how this trade changed according to the legislation. We shall also develop an index of dependency of Moldova towards these economic zones and its evolution. In the second part we shall focus on the structure and evolution of trade of Moldova with The Russian Federation and Ukraine in order to analyze their weight but also the degree of economic cooperation between the countries. We are also interested to see which are the most important categories of products, that are traded between these countries and how were they affected by the relation of Moldova with the EU. In the third part we will analyze the overall trade of Moldova with Romania, measuring the evolution of the weight of Romanian exports and imports from and towards Moldova and the changes in their structure. An objective will be to set a theoretical optimum level of development in order to set a level of trade which could support a strong and sustainable economic development between the two countries.*

Keywords: trade, optimum, dependency, export, import, economic development, volume.

Introduction

The process of globalization has given rise to the development of international production chains. Strengthened by the integration of the markets around the world (EU, CIS, NAFTA, etc.) and by the development of the multinational companies, the international trade has become stronger each year. According to the UN reports (UNCTAD 2016), the trade volume has grown at a global level, between 1994 and 2014, from 5 trillion to 24 trillion US Dollars per year. Although developed countries still account for the bulk of the international trade, over 50% is already made by developing countries.

According to the advantages of each country, we can see a certain specialization within the fields which account for most of their exports of the developing countries. There is a strong correlation between the structure of the exports and imports and the development level of a country. Countries with big exports of raw materials, cereals, fruit and vegetables, clothing and other low manufacturing technology products tend to be less developed. The added value on the chain of production is rather low, and therefore there are not many positive spill overs in the economy. If we analyze the trade structure between two developed countries, we shall notice an important degree of high technology products, processed foods and in general sophisticated products.

Another factor that influences the degree of trade development is the membership to a trade union. The best example for this is the European Union, and the evolution of the eastern countries after joining the block. Analysis show (Kallioras 2010), that EU accession

of the new eastern European states has dramatically changed the structure of their economies. According to data (Bajo-Rubio 2011), exports can be one factor for generating growth in the new EU states but is not the dominant one. The implementation of the EU law, the free trade and the relation of the national currencies to the Euro are also factors that influence change within economies and determine people to invest. Becoming a part of the common market means also that companies are more eager to invest and perceive the country as a safe destination. That leads to the inclusion of the international production chains of the multinational companies, who are always looking for formulas to optimize their production.

The situation of Moldova is unique, although still part of the Commonwealth of Independent States, its economic focus is more on the European Union. The neighborhood policy of the EU, together with the signing on the 27th of June 2014 of the Moldova – European Union Association Treaty have given a boost to the trade relations between the EU and Moldova. This evolution marks a change in the strategic development of the economy of Moldova, which now focuses more on developing trade routes to the western part of Europe. The access to the European Investment Bank, together with the implementation of the European Law will further enhance the interconnectivity between Moldova and the EU. Considering the rather small size of its market, and the low industrial development, the country strongly needs international trade in order to be able to grow. Its cultural similarities to Romania and the potential to be a bridge between the EU and the CIS are largely underused. The situation of Moldova, is not comparable to that of other EU neighbors, its size and cultural background being an advantage in the process of developing the bilateral relations.

General framework and literature review

There are strong global developments in the international trade, the shift of trade volume from the western world to the Asian world, together with the technological progress and the development of the global supply chains are pushing for a rethinking of the classical trade models (Puslecki, 2016). The appearance of the global companies, which prefer investing in low cost countries rather than in their home countries has triggered a new wave of protectionism wave. There is also another fear, of technological transfers and losing the competitive advantage (Navarro, 2013).

Another concept that has been analyzed by specialists is that of product diversification in order to remain competitive as an economy at an international level. The high dependency from a low number of export products, can make a country more vulnerable in front of an economic global crisis, and the adjustments which have to be made can jeopardize the social balance within societies. Examples are the fall of the Russian GDP, after the sinking of the global oil prices (BOFIT, 2016) or the imbalances in trade of the lesser developed countries after the 2008-2009 crisis (Escaith, 2014).

A third concept is that of the economic dependencies between small and big countries. The main risk is associated with the volatility of the relation, especially if the bigger party uses its economic dominance in order to achieve geopolitical objectives (Morosan, 2016). The imposing of sanctions on states, because of political problems has been often used in the last decade, and it shows the risks of high economic dependencies. As far as Moldova is concerned, the size of its economy and the structure of its trade, allows a rather rapid change of structure and priorities. The Eastern Partnership, which aimed for

the development of the relations of the EU with the former Soviet republics, was continued by the Association Treaty which included a deep and comprehensive free trade agreement (DCFTA) that eliminated many trade barriers between the EU and Moldova (MICS,2015). This has led to the reorientation of exports, from Russia towards the EU countries. This evolution will also lead to an increase in the FDI from the EU countries, the low wages within Moldova and the vicinity to the EU being attractive for the labor intensive industries.

Methodology and data issues

Within this paper we will analyze three domains which we consider relevant for the analysis of the current situation of the trade of Moldova the overall exports of Moldova over the CIS and the EU: i) a comparative analysis between the overall exports and imports of Moldova towards the EU and CIS, ii) on the structure and evolution of trade of Moldova with The Russian Federation and Ukraine, iii) trade of Moldova with Romania, measuring the evolution of the weight of Romanian exports and imports from and towards Moldova. I have collected the data from the National Bureau of Statistics of the Republic of Moldova, from 2001 to 2014. Descriptive statistics is are being used in order to analyze the three domains.

A comparative analysis between the overall exports and imports of Moldova towards the EU and CIS between 2001 and 2014

If we analyze the evolution of the exports from Moldova towards the EU and the CIS, we see a very strong improvement of the EU position. If in 2001, the exports toward the EU countries represented only 56% of the CIS exports, in 2014, the exports to the EU were with 69% higher than those to the CIS.

Table 1. *Evolution of exports from Moldova towards the EU and the CIS*

Year	Exports to the EU(\$)	Exports to the CIS(\$)	EU/CIS
2001	182537.7	343713.5	0.531075
2002	231627.3	350014.9	0.661764
2003	307654.4	422486.4	0.7282
2004	400694.4	500355.4	0.80082
2005	443888.2	545978.5	0.813014
2006	537062.7	419586.1	1.279982
2007	679015.3	545481.8	1.244799
2008	820860.9	616643.9	1.331175
2009	667497.6	490415.2	1.361087
2010	729017.2	624003.2	1.168291
2011	1083108.4	919265	1.178233
2012	1013927.1	928119.5	1.092453
2013	1137286.1	923219.8	1.231869
2014	1245980	735647.7	1.693718

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova.

If we analyze the imports, we also see an important growth in the relation with the EU countries. Although in 2001 there was only a 27% difference, in 2014 it grew to 77%.

This evolution has several explanations, with the increase in the power of consumption the consumers wanted more sophisticated products from the EU.

Table 2. Evolution of imports

Year	Imports from the EU (\$)	Imports from the CIS(\$)	EU vs CIS
2001	434227.5	340089.9	1.276802
2002	469802.5	408773	1.149299
2003	636507.3	593225.5	1.07296
2004	777066.6	764658	1.016228
2005	1040860.5	904932.7	1.150208
2006	1219533.4	1020434.2	1.195112
2007	1682864.9	1332810.3	1.262644
2008	2107378	1736833.7	1.213345
2009	1423393.5	1141782.6	1.246641
2010	1706100	1256851.6	1.357439
2011	2258699.3	1713415.9	1.318243
2012	2320430.2	1623721.2	1.429082
2013	2472111.6	1672307.7	1.478264
2014	2567695.4	1449245.9	1.771746

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova.

The structure and evolution of trade of Moldova with The Russian Federation and Ukraine

In order to understand the evolution with the CIS, we have to analyze the relation with the two main partners, respectively Russia and the Ukraine. These countries represented for a long period the main economic partners of Moldova, and the current evolution of economic cooperation show a decrease in their importance.

Table 3. Relation with Ukraine and Russia- exports

Year	Total Exports of MD	Ukraine	Russia	Wgt. Ukr.	Wgt. Rus.
2005	1090.9	99.9	347.36	9%	32%
2006	1050.4	128.4	181.9	12%	17%
2007	1340.1	167.9	232.7	13%	17%
2008	1591.1	142.8	313.7	9%	20%
2009	1282.9	81.3	286.5	6%	22%
2010	1541.5	91.6	403.9	6%	26%
2011	2216.8	152.9	625.5	7%	28%
2012	2161.9	122.4	655.1	6%	30%
2013	2428.3	140.4	631.9	6%	26%
2014	2339.5	109.2	423.7	5%	18%
2015	1966.8	45.8	240.6	2%	12%

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova.

The data from 2005, shows a general decrease of the weights of Russian and Ukraine within the total exports of Moldova. If in 2005 32% of Moldavian exports were going to Russia and 9% to the Ukraine, today these countries combined, account only for 14% of Moldova's exports. This situations, shows a low dependency of the economy of Moldova from any import sanctions that might be imposed by Russia or the Ukraine.

Table 4. Relation with Ukraine and Russia- imports

Year	Total imports of MD	Russia	Ukraine	Wgt. Ukr.	Wgt. Rus.
2005	2292.3	267.8	479.7	21%	12%
2006	2693.2	417.1	516.5	19%	15%
2007	3689.5	498.6	686.9	19%	14%
2008	4898.7	666.1	838.9	17%	14%
2009	3278.3	374.5	458.8	14%	11%
2010	3855.3	586.5	528.5	14%	15%
2011	5191.3	822.9	641.1	12%	16%
2012	5212.9	816.8	594.3	11%	16%
2013	5492.4	788.1	659.1	12%	14%
2014	5316.9	717.2	546.4	10%	13%
2015	3986.8	535.7	371.1	9%	13%

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova. Regarding the imports, we see that the Ukraine has decreased its weight within the Moldavian imports, from 21% to 9% from 2005 to 2015, and Russia has kept a similar weight, growing from 12% to 13% from 2005 to 2015. These are mainly imports of natural resources, especially gas, which will always have a correlation with the national consumption or with the capacity of Moldova to import gas from other states. Overall, we see no increase in the influence of the Russian economy over the Moldovan economy.

Trade of Moldova with Romania, measuring the evolution of the weight of Romanian exports and imports from and towards Moldova

In order to understand the relations between Romania and Moldova, from an economic perspective, we also have to analyze the volume of trade between the two countries and the growth of the weight of the countries into their bilateral trade. As we see in the table below, Romania has become the most important trade partner of Moldova during the last 10 years. If in 2005 Romania accounted only for 10% of the exports of Moldova, in 2015 it represented 23%, with a growing perspective. From the imports perspective, Romanian products represented in 2015 only 14% of the Moldavian imports, growing from 11% in 2005. This situation is also correlated with the low interest of Romanian producers to go on the market of Moldova, but also because of the increasing interest in Romania for the Moldavian products.

Table 5. Bilateral trade MD - Romania

Year	Total Exports MD	Exports to Romania	Wgt. of exp to RO	Total Imports MD	Imports from Romania	Wgt. of imp to RO
2005	1090.9	111.6	10%	2292.3	257.3	11%
2006	1050.4	154.9	15%	2693.2	345.9	13%
2007	1340.1	210.9	10%	3689.5	449.1	12%
2008	1591.1	335.8	21%	4898.7	590.8	12%

2009	1282.9	239.6	10%	3278.3	311.7	10%
2010	1541.5	246.4	16%	3855.3	386.8	10%
2011	2216.8	376.4	10%	5191.3	574.3	11%
2012	2161.9	356.7	16%	5212.9	620.6	12%
2013	2428.3	411.1	17%	5492.4	722.1	13%
2014	2339.5	434.1	19%	5316.9	803.1	15%
2015	1966.8	446.3	23%	3986.8	555.1	14%

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova.

After we have seen the evolution of the trade done by the Republic of Moldova, the next step is to analyze the structure of its trade. As we see in the table below, Moldova exports are not very diversified and are focused mostly on four categories:

- The first category is that of “vegetable products” which represent more than 25% of the exports. Being so dependent on agricultural input, involves many risks as dependency on weather, dependency of the quota system of the EU, low productivity of the agricultural sector, etc. By analyzing the weight of agricultural exports within the total exports of the developed states, we see that Moldova is a lot above the average
- The second category is that of “Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes”, with around 15% of the overall exports. Although it represents a group of more sophisticated products, they do not represent a high value added chain of production. Also in this domain the weight is above the average in developed countries.
- The third category is of “textiles and textile articles”, which is normal for developing countries, attractive for the Lohn industries because of low wages and proximity to the export markets. This industry will remain high, as long as the wages are low. The advantage is that it employs many persons, the disadvantage consists in the very low value added on the production chain.
- The fourth category is that of “machinery and mechanical appliances, etc”, with 15% of the exports. These type of products can vary in sophistication and represent a transition phase towards more value added chain of production. The percentage is important and will continue to remain so, thanks to the low wages of Moldova, which attract car parts producers but also to the proximity of the EU markets and the production chains from Romania.

Table 6. Total Exports MD

	Total Exports Moldova		Wgt. 2015
thousands US\$		TOTAL	
		1966837	

I	Live animals; animal products	37510.9	1.907%
II	Vegetable products	501701	25.508%
III	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	72012.4	3.661%
IV	Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	303265	15.419%
V	Mineral products	16897.7	0.859%
VI	Products of the chemical or allied industries	118860	6.043%
VII	Plastics and articles thereof; rubber and articles thereof	40280.7	2.048%
VIII	Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)	25026.8	1.272%
IX	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	7986.2	0.406%
X	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard; paper and paperboard and articles thereof	10569.9	0.537%
XI	Textiles and textile articles	273714	13.916%
XII	Footwear, headgear, umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof; prepared feathers and articles made therewith; artificial flowers; articles of human hair	24013.8	1.221%
XIII	Articles of stone, plaster, cement, asbestos, mica or similar materials; ceramic products; glass and glassware	41778.8	2.124%
XIV	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	824.2	0.042%
XV	Base metals and articles of base metal	43244.2	2.199%
XVI	Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound records and reproducers, and parts and accessories of such articles	295511	15.025%
XVII	Vehicles, aircraft, vessels and associated transport equipment	18040.2	0.917%
XVIII	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; musical instruments; parts and accessories thereof	28278.8	1.438%
XX	Miscellaneous manufactured articles	107288	5.455%
XXI	Works of art, collectors' pieces and antiques	33.4	0.002%

PICBE | 575

Source: Authors' own computations, based on data from the National Bureau of Statistics, Moldova.

Conclusions

Moldova starts to be integrated in the new global production chains, especially in the auto parts industries and in the textile industry. The low wages, the borders with the EU and the cultural background makes it a potential production site for industry that are looking for cheap labor, not too far from the export markets. Although the FDI is not that high, the

association treaty with the EU and the free trade agreement, put the country on the map for interested investors.

From the perspective of diversification, the structure of exports is still weak, with no high value added products, and a high dependency on agricultural products. This puts a pressure on the government, because high production fluctuations might appear because of weather conditions. The weight of the textile industry and the production of machinery shows a new line of investors that are interested in Moldova. On a short term it is difficult to change this structure, but on a medium term, the free trade with the EU will attract also other types of producers.

From the dependency point of view, we see a lower role played by the Russian economy in the bilateral trade relations and an increasing role of the EU's in general and Romania's in particular. The similar legislation with the EU countries, the cultural similarities and the strategic direction of the country will contribute to the further development of this trend.

References

- United Nations Conference on Trade and Development - Trade and Development Board ,
Sixty-second session, Geneva, 14–25 September 2015 – pp 2-3.
- Kallioras, Dimitris; Petrakos, George. *Annals of Regional Science*. Dec2010, Vol. 45 Issue 3, p667-680.
- Bajo-Rubio, Oscar; Díaz-Roldán, Carmen. (2012). Do exports cause growth? Some evidence for the new EU members, *Post-Communist Economies*. Mar2012, Vol. 24 Issue 1, p125-131.
- Wroclaw University of Economics / Prace Naukowe Uniwersytetu Ekonomicznego we Wroclawiu. 2016, Issue 450, p471-490. 20.
- Navarro, P. (2013). China 2013: The Year of Reshoring to America? *Financial Executive*. 29 (1), 33-35.
- Bank of Finland BOFIT (2016)– Institute for Economies in Transition, BOFIT Forecast for Russia 2016–2018, Retrieved from <http://docplayer.fi/2419326-Julkaisuluettelo-09-09-2015.html>.
- Escaith, H.; Tamenu, B. (2014). Surfing on the Tide? Least Developed Countries Trade During the Great Global Transition. *Theoretical & Practical Research in Economic Fields (De Gruyter Open)*. 5(1), 14-17
- Moroşan, M. *Ovidius University Annals, Series Economic Sciences*. (2016), 16 (1), 29-34.
- U.S. Department of State - MOLDOVA INVESTMENT CLIMATE STATEMENT – 2015
<http://www.statistica.md/> - National Bureau of Statistics of the Republic of Moldova, accessed on the 15th of February 2017.