TRADE SPECIALIZATION DYNAMICS IN MOLDOVA

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ABSTRACT

The last decade, external trade of Republic of Moldova, especially exports have showed very poor performances. Unlike imports, Moldovan exports grow very slow, and this is determined in the main by a reduction of industrial production. This paper examines the pattern of Moldovan international trade specialization and to what extent has it managed to change during the transition process to market economy. Agricultural sector and food processing industry still dominate the categories of products for which Moldova exhibits the largest degree of trade specialization. By contrast, high-technology sectors are prevalent among the categories for which our country is import-dependent. However, Moldova became also an important importer of products it have the greater degree of specialization.

KEYWORDS

imports, exports, foreign direct investments, trade specialization, Lafay index, manufacturing.

INTRODUCTION

Nowadays, an important issue of public authorities has become the national economy transition from a development model based on remittances and consumption to one based on exports, investment and innovation. It is still premature to talk about Moldovan economic development based on innovation, since they involve huge investments and are more characteristic for developed countries. However, exports and foreign direct investment could play a vital role in national economy growth. Although throughout the period of transition, namely over the last decade, many measures have been taken to liberalize exports, their performances are still very low and the national economy is actually facing a shortage of competitive products on external markets. These modest export developments in large part due to the uncompetitive exports' structure, which have shown modest evolution during this period of time.

This paper attempts to analyze the changes occurred in Moldovan trade specialization pattern. The main results of the study confirmed existing concerns about the quality of Moldovan exports specialization. Moldova continues to specialize mainly in export of agricultural products and low-tech manufactured products. Meanwhile, products with a high added value are less characteristic for Moldovan exports, what determine their low contribution to national economic growth.

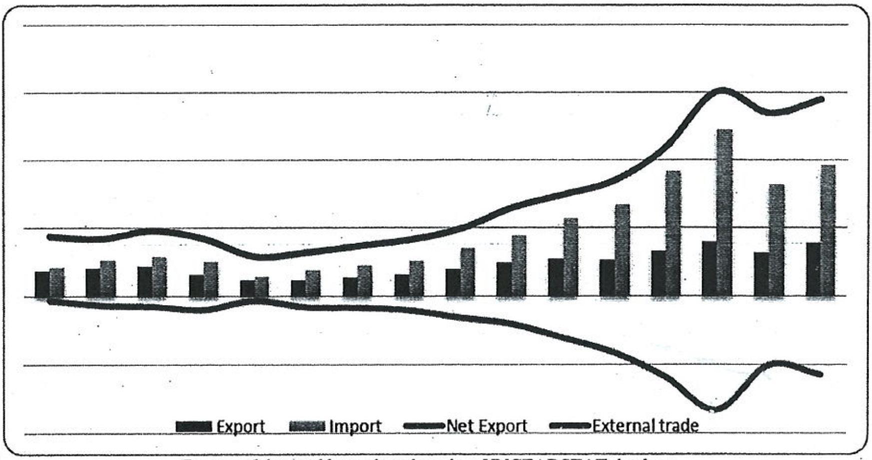
The main trends of Republic of Moldova external trade in the transition period

Intensifying globalization during the last decades raised profound changes in Moldovan foreign trade. A major step in this process has been Moldova's accession to the WTO multilateral system of trade that has brought on a new dimension in the country's trade policy. This period was marked by some main trends.

Trade liberalization has lead to an increase in the degree of economic openness (share of sum of imports and exports on GDP). In 2010 country's economic openness was almost two ways higher compared to the beginning of '90. In 1992, it represented 45%, in 1995 -89% and in 2010 -94%. In the pre -crisis year this indicator has reached and overcome even 100%. The high values of the index are due to the accelerated growth rates of imports, especially during the last decade, while exports performances has remain relatively modest. This fact is confirmed by the law exports' share in GDP - that has grown from 19% in 1992 to 49% during the peak year of 1995, and decreased in 2010 till 27%. Also imports coverage by exports rate has decreased from 73.42% to 41.04% in the period 1992-2010.

Is relevant the fact that the share of Moldovan exports in world exports has remained virtually unchanged during this period, with values varying around 0.01%. However, as shown in Figure 1, except crisis years, Moldova's foreign trade followed a general growth trend.

Figure 1. External trade of the Republic of Moldova (1995-2010), mil. USD



Source: elaborated by authors based on UNCTADSTAT database

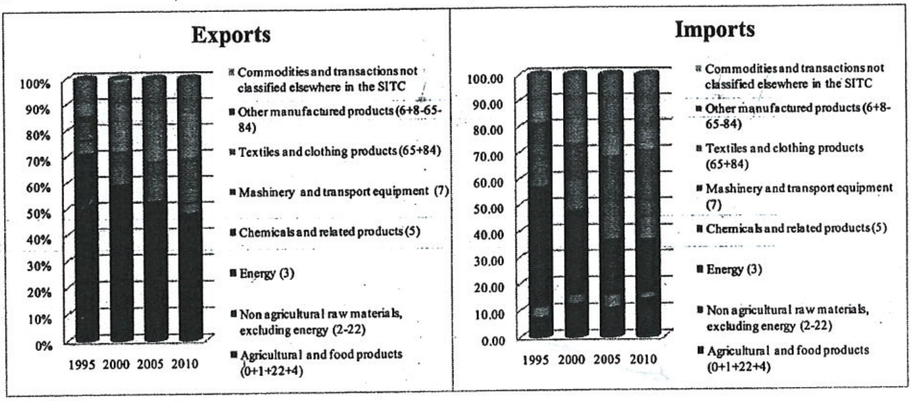
Another, trend that marked external trade in the transition process is the cardinal geographical reorientation of external trade, both: imports and exports.

Unlike the 1992 year when almost 68.9% of external trade was oriented toward former socialists countries (64.6% of exports and 72% of imports), in 2010 the share of this countries in our external trade has decreased, representing 39.42% of exports and 72% of imports. Meantime, beginning with the second half of the 90s, especially in the last decade, due to the preferential trade regimes with EU and then to the Romania joining to this country group, EU became an important trade partner of Moldova. In 2010 Moldova's exports was oriented towards EU in proportion of 47.18%, and was importing from this region 44.20%.

Finally, another important aspect of foreign trade, which has undergone some changes since the Moldovan economy has opened is foreign trade commodity structure both of exports and imports (Figure 2). But the question is" have been these changes qualitative, which would allow the transformation of foreign trade into a positive factor with significant implications on economic growth?"

Export of agricultural and food products have dropped dramatically during this period, from 71.7% in 1995 to 48.65% in 2010. This decline is caused especially by the meat, milk, eggs, sugar, drinks and tobacco products' export steepest fall since 2006 (in 2006 Russia introduced a ban for Moldovan wines imports). Despite this, as shown in figure 2, the share of agricultural and food products exports remain enough high, almost one half.

Figure 2. Evolution of commodity structure of Republic of Moldova's external trade between 1995-2010, %



Source: elaborated by authors based on NBS and UNCTADSTAT database
Note: the data are presented according SITC rev 3

During this period, grew the share of manufactured goods exports, particularly electrical machinery and light industry products: textiles, footwear, apparel etc. The export of these products showed more significant growth trend in the first half of this decade, following the relocation of production of large European companies to low labor cost countries. However, besides the low level of added value of these products, the last five years their exports have highlighted a slight reduction, Moldova gradually losing its cost advantages.

Also has changed the imports' structure. During the analyzed period, although its value increased more than 2 times, energy imports share of total imports decreased dramatically from 45.9% in 1995 to 20% in 2010. At the same time, being generated especially by migrants' remittances, imports of manufactured products have increased significantly. But a quite strange phenomenon is the growth in imports of food products like: meat, fruit and vegetables, tobacco products etc. Moreover, in 2008 a unique phenomenon has occurred ¬ for the first time, this group of products has registered a negative trade balance - (-) 14.47 million USD.

Patterns of Moldova's external trade specialization

The analysis of foreign trade specialization patterns over time can point out the structural changes that occur in an economic system. It also can be considered as an indicator of the quality of a country's foreign trade structure.

The literature suggests a large number of indicators to measure the specialization of international trade of different countries. One of these indicators is Lafay index (1992), which is an index of specialization or revealed comparative advantage that takes account of both exports and imports and is therefore more suitable for a country with intra-industry trade. Thus, a positive value of the index reveals a comparative advantage, and its growth - a higher level of specialization. On the contrary, a negative value indicates a comparative disadvantage.

For a country j and for a group of products i, the specialization Lafay index (LFI_i) take the following form:

$$LFI_i = \left(\frac{X_i - M_i}{X_i + M_i} - \frac{\sum_{i=1}^{N}(X_i - M_i)}{\sum_{i=1}^{N}(X_i + M_i)} \right) \frac{X_i + M_i}{\sum_{i=1}^{N}(X_i + M_i)} * 100, \quad i = 1, \ldots, N$$

Where X_i and M_i are exports and imports of the product i by country j, and N - total number of products.

Within the study, the Lafay index for the Moldova's external trade has been computed at a disaggregated level of 67 items from the two-digit Standard International Trade Classification. The study reflects the fact that during the last 15 years Moldova didn't specialized in new sectors, and has even registered a loss o specialization in traditional sectors. From 67 divisions of SITC, in 2010 Moldova had comparative advantages for only 21(that represent 31% of total) from witch 13 positions are agricultural products and other primary goods. Accordingly, in 1995 we had a comparative advantage for 22 divisions, 15 of which were food and primary products.

Table 1: **Top 10 and bottom 10 products groups for which Moldova has a comparative advantage based on the Lafay index**

1995						2010					
Cod SITC , rev 3	Grupe produse	*ILF*	Cod SITC, rev 3	*Grupe produse*	*ILF*	Cod SITC, rev 3	Grupe produse	*ILF*	Cod SITC, rev 3	*Grupe produse*	*ILF*
11	*Drinks*	*10.82*	78	*Road vehicles (including air-cushion vehicles)*	*-0.88*	84	*Articles of apparel and clothing accessories*	*5.27*	69	*Manufactures of metals, n.e.s.*	*-0.66*
05	*Fruits and beverages*	*7.34*	65	*Textile yarn, fabrics, made-up articles, n.e.s., and related products*	*-0.95*	05	*Fruits and beverages*	*4.78*	64	*Paper, paperboard and articles of paper pulp, of paper or of paperboard*	*-0.68*
06	*Sugars, sugar preparations and honey*	*4.11*	54	*Medicinal and pharmaceutical products*	*-1.00*	11	*Drinks*	*4.16*	55	*Essential oils and resinoids and perfume materials;*	*-0.69*
01	*Meat and meat preparations*	*3.19*	64	*Paper, paperboard and articles of paper pulp, of paper or of paperboard*	*-1.12*	22	*Oil-seeds and oleaginous fruits*	*2.40*	58	*Plastics in non-primary forms*	*-0.71*
12	*Tobacco and tobacco manufactures*	*3.01*	72	*Machinery specialized for particular industries*	*-1.16*	04	*Cereals and cereal preparations*	*2.20*	67	*Iron and steel*	*-0.96*
84	*Articles of apparel and clothing accessories*	*1.13*	59	*Chemical materials and products, n.e.s.*	*-1.25*	42	*Fixed vegetable fats and oils, crude, refined or fractionated*	*1.19*	76	*Telecommunications and sound-recording and reproducing apparatus and equipment*	*-1.04*
28	*Metalliferous ores and metal scrap*	[illegible]	35	*Electric current*	*-2.39*	28	*Metalliferous ores and metal scrap*	[illegible]	65	*Textile yarn, fabrics, made-up articles, n.e.s., and related products*	*-1.18*
02	*Dairy products and birds' eggs*	[illegible]	32	*Coal, coke and briquettes*	*-2.98*	06	*Sugars, sugar preparations and honey*	[illegible]	78	*Vehicule rutiere (inclusiv vehicule cu perna de aer)*	*-1.56*
04	*Cereals and cereal preparations*	[illegible]	34	*Gas, natural and manufactured*	*-6.27*	85	*Footwear*	[illegible]	34	*Gas, natural and manufactured*	[illegible]
42	*Fixed vegetable fats and oils, crude, refined or fractionated*	[illegible]	33	*Petroleum, petroleum products and related materials*	[illegible]	82	*Furniture, and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings*	[illegible]	33	*Petroleum, petroleum products and related materials*	[illegible]

Source: authors calculations based on NBS and UNCTADSTAT database

As can be seen from the table above, the greater degree of specialization Moldova has for agricultural products. Top five groups of products that Moldova has continued to specialize during this period are drinks, articles of apparel and accessories, vegetables and fruits, fixed vegetable fats and oils, cereals and cereal preparations.

The analysis reflects that Moldova has the greatest specialization in apparel and drinks production in 2010. Despite the fact that Lafay index has grown for apparel products in 2010 compared to 1995, from 1.13 to 5.27, it has decreased compared to 2000 – when its value represented 7.05. Also trade specialization in such products as drinks, fruits and vegetables also exhibited a declining trend. Till present Moldova has lost specialization in production of some products like tobacco, meat, milk, eggs - products for witch we had a relative high comparative advantage in 1995. However, in the top 10 products that our trade had a comparative advantage in 2010 appeared two new manufactured products - footwear and furniture.

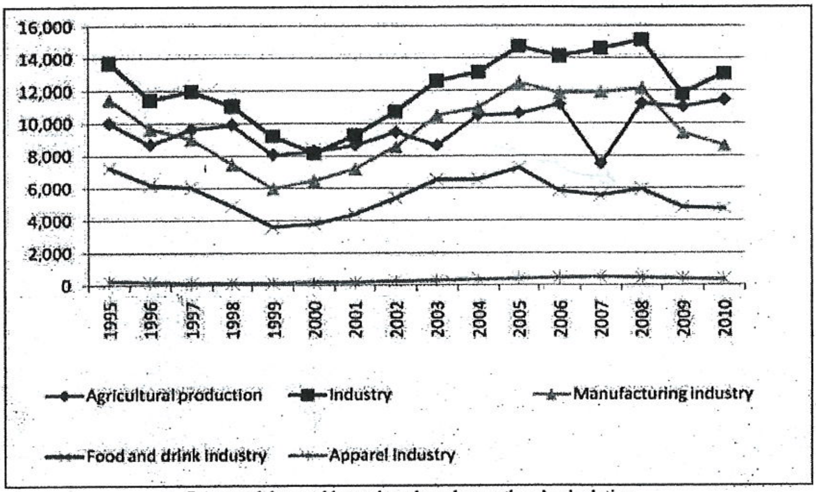
In this context, it should be noted that, compared with 1995, in 2010 has been developed a comparative advantage in production of such manufactured products such as electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof, metalworking machinery, power-generating machinery and equipment. However, the commodity structure of Moldovan trade didn't exhibit optimistic developments last 15 years: in particular, has been kept specialization especially in production of food products, including basic goods; has been lost specialization for some products we have had a traditional comparative advantage.

These trends can be explained by the influence of several contextual factors:

- The period under review coincided with the period of rapid trade liberalization. Especially beginning with the first half of the 2000s, imports have increased much faster than exports. Between 1995 and 2010, annual average growth rate of imports was 14.7 and of exports - 8.4, and during the 2000-2010 these indicators were 20.5% and, accordingly 12.7%.[1]
- During the analyzed period, imports have grown very fast while national production registered poor developments and proved to be unable to ensure a correspondent export supply. During 1995-2010, industrial and agricultural production in real terms (at constant 2000 prices), has grown at a fairly

modest annual average rate. Manufacturing industry, including food, beverages and tobacco industries have even registered a negative trend, if compare their value in 2010 compared to 1995. Thus, during this period, agricultural production grew by an average of only 2.42% and industry by 0.47%, while manufacturing industry decreased by -0.9%. Although in nominal values food and beverages industry was raised on average by 11.5%, in real terms, it registered a negative average growth rate of -1.59%. In contrast, a relatively high rate of growth had the volume of apparel production - 5.43%, while its nominal value increased even at a higher rate.

Figure 3: Agricultural and industrial production, mil. lei (at constant 2000 prices)



Source: elaborated by authors based on authors' calculation

These trends highlight the critical situation of agriculture and domestic industry, which practically didn't develop since 1995. The situation is more critical, especially for manufacturing industry, which in the last two years has fallen even below the 1995 level. Although the agricultural and industrial production has grown in nominal terms, this development was due rather to a high rate of inflation than to production volume increase.

Conclusions: In the current world economy's conjuncture, exports and investments have become critical drivers and enablers of high level of sustainable growth. Thus, many developing and transition countries, including Republic of Moldova, have to turn toward a new model of sustainable growth which is pro-investment and export-oriented. Meantime, to ensure an economic growth, the country should diversify its exports; reduce the share of primary products in the exports structure and increase that of high added value products, including science intensive products etc.

Export and investments have a limited impact on economic growth of our country. Exports have modest performances, especially due to their uncompetitive commodity structure. Almost half of our exports represent export of agricultural and food products and no trends towards specialization in other new products have arisen. The cause of these evolutions lies probably in the low productive potential of national agriculture and industry. In 2010, the volume of agricultural production has hardly overcome the 1995 level, while the industrial production, especially food industry was even below. Thus, over a short and medium run, the agricultural sector will probably have a positive impact on export growth, due to world prices growth for these products, but in a long run radical measures are needed to improve productive capacities in agriculture and domestic industry, which would supply diversified and qualitative products for export.

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