

THE MECHANISM OF AGRICULTURAL DEVELOPMENT TRANSMISSION ON THE ECONOMIC GROWTH AND POVERTY REDUCTION IN THE REPUBLIC OF MOLDOVA

MOCANU NATALIA*¹, TENTIUC CRISTINA¹, COLESNIC MARIANA¹

¹*State Agrarian University of Moldova, Chisinau, Republic of Moldova*

*Corresponding author's e-mail: mocanunatalia@gmail.com

***Abstract:** Providing a qualitative economic growth by eliminating critical constraints and poverty reduction are short-term intended effects. For medium and long term, the fundamental concern of the authorities is to promote welfare - a concept that encompasses various aspects of development. The Republic of Moldova should make all efforts to ensure the transition towards green economic development that promotes the principles of sustainable rural development and contribute to poverty reduction, inclusively by ensuring better governance for sustainable development, by integrating and strengthening the aspects in agriculture and in all areas of the socio-economic development of the country.*

Key words: agriculture, economic growth, poverty reduction.

INTRODUCTION

A diagnostic analysis of constraints to economic development highlights critical issues, i.e., areas where The Republic of Moldova is largely surpassed by comparable countries. According to the idea of general equilibrium agricultural demand leads towards industrialization (ADLI) [2]. Therefore, due to the ties of production and consumption, the development strategy of a country should be oriented towards agriculture (agriculture-driven development strategy) rather than to export-oriented strategy (export-driven development strategy) and the increased agrarian productivity should be the initiator of industrialization [3]. However, the approach of "agro-pessimism" is based on the observation that agriculture in developing countries could be the least productive sector of the economy. As a result, there is less need to increase agricultural productivity in order to induce global growth and poverty reduction. If agriculture is less productive than other sectors, import of food and focus on other sectors could be more beneficial for the development of a country.

MATERIALS AND METHODS

The used theoretical resources are the works specific to rural development. There also were used the data from the National Bureau of Statistics of the Republic of Moldova. In order to study the problem of sustainable rural development of the agricultural sector there were analyzed the data concerning the state of this branch, there were used such research methods as: the analysis, synthesis, comparison and more. There were used different regulations of the Ministry of Agriculture and Food Industry.

RESULTS AND DISCUSSIONS

Economic development, wherever it occurs, is based on three factors - the accumulation of capital, workforce and the degree of its productivity, which includes other parameters such as: technology, efficient governance, skills, etc. The analysis of the factors of economic development in the Republic of Moldova reveals a very alarming conclusion - without an effort to change the development paradigm, the growth potential for the next 10 years is limited to no more than 4.5-5% per year [5,7]. Agriculture is also an important factor of economic growth.

Further we are going to develop the concept of transmission mechanism for agriculture to identify how it can influence economic development and to establish priority strategies for the development of the agricultural units in the Republic of Moldova.

The transmission mechanism can be defined as system of functionally connected variables, that describe the mutual actions of the changes registered in the workforce, agricultural production, agricultural productivity, agricultural prices and export / import of agricultural products in the national economy (economic growth, poverty reduction) [1]. Therefore, we will consider the mechanism of transmission as a hypothetical theoretical scheme concerning the channels through which the above mentioned variables act on macroeconomic variables.

We consider that the channels through which agriculture influences the development of the national economy in the case of a small closed economy are:

- ⇒ workforce;
- ⇒ agricultural production;
- ⇒ productivity in agriculture;
- ⇒ agricultural prices (Fig. 1).

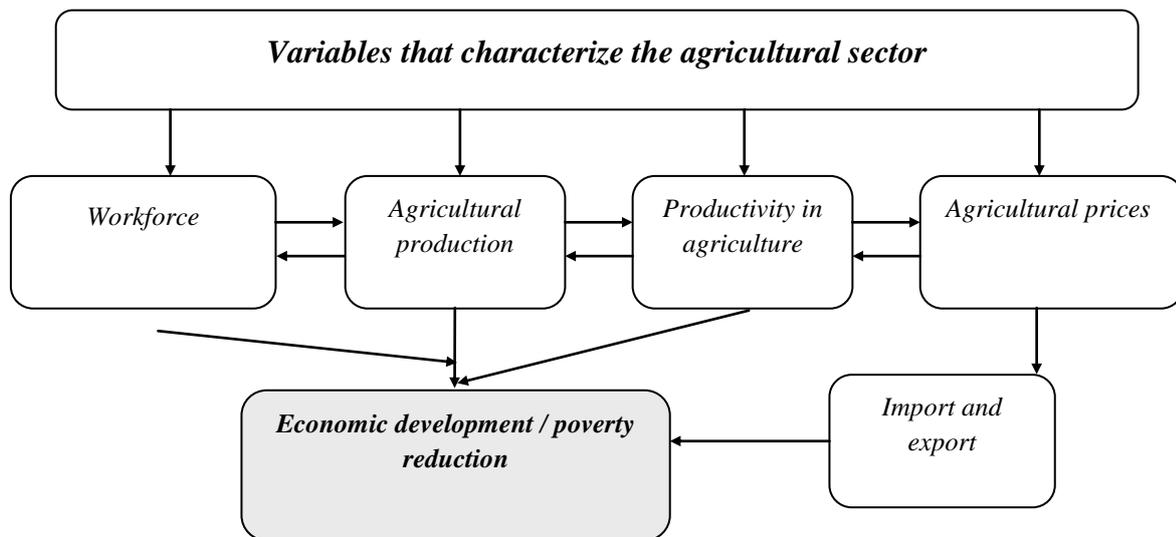


Figure 1. The general scheme of the mechanism of transmission of the processes developed in agriculture on the national economy

Source: elaborated by the authors

The Channel of workforce. Productivity in agriculture is lower than in the industrial and services sector, the last two being considered to constitute the modern sector of a national economy.

While there is a surplus of labor in the agricultural sector, the productivity will be lower here. Consequently, in the modern sector wages will be higher, which causes the workforce to migrate from agriculture into modern sector, which, in its turn, generates economic growth.

Table 1

The employed population in the Republic of Moldova on types of economic activities

	2000		2015		2015/2000	
	thousand people	Share, %	thousand people	share, %	thousand people	Percentage points, pp.
Economic activities, total	1514,6	100,0	1203,6	100,0	-311	0,0
Agriculture, hunting, pisciculture	770,4	50,9	381,9	31,7	-388,5	19,2
Industry	166,1	11,0	148,3	12,3	-17,8	1,3
Constructions	44,4	2,9	65,4	5,4	+21	2,5
Wholesale and retail trade, hotels and restaurants	165,3	10,9	189,6	15,8	+24,3	4,9
Transport and communications	63,9	4,2	76,3	6,3	+12,4	2,1
Public administration, education, health and social assistance	240,2	15,9	253,8	19,6	-4,4	3,7
Other activities	64,4	4,3	106,4	8,8	42	4,5

Source: *statistica.md*

Table 1 provides information on the evolution of the workforce in the agriculture of the Republic of Moldova. As the table shows, employment in agriculture has decreased in 2015 compared to 2000 approximately by 388 500 people, reducing from 770 to 381,9 thousand people. According to the theoretical models presented in Chapter I, in the case of small closed economies, the reduction of employees in agriculture is usually linked to their redirection to industrial and service sectors. We also see that the reduction of more than by 2 times of the population employed in the agriculture of the Republic of Moldova didn't lead to a concomitant increase in the number of the employed in the industry. On the contrary, the number of employees in industry suffered a reduction of 17 800 people. Only trade, construction and some other economic sectors recorded increases in the number of employees, although these increases are very modest and do not reflect the massive outflow of workforce from agriculture. Therefore, for the Republic of Moldova, *the channel of workforce* - double decrease of agricultural workers, didn't mean the development of other economic sectors, and therefore did not determine economic growth processes.

At the same time, the full exploitation of the potential, that determine agricultural competitiveness, requires a critical mass of population endowed with entrepreneur spirit, knowledge and work skills in market economy conditions. Its formation in the agricultural sector of the Republic of Moldova goes extremely slowly and it is rather chaotic [5]. Most individual farmers do not possess knowledge in business management and cannot use modern technologies in the production process. Managers of agricultural enterprises also lack sufficient knowledge of corporate management, financial management and marketing.

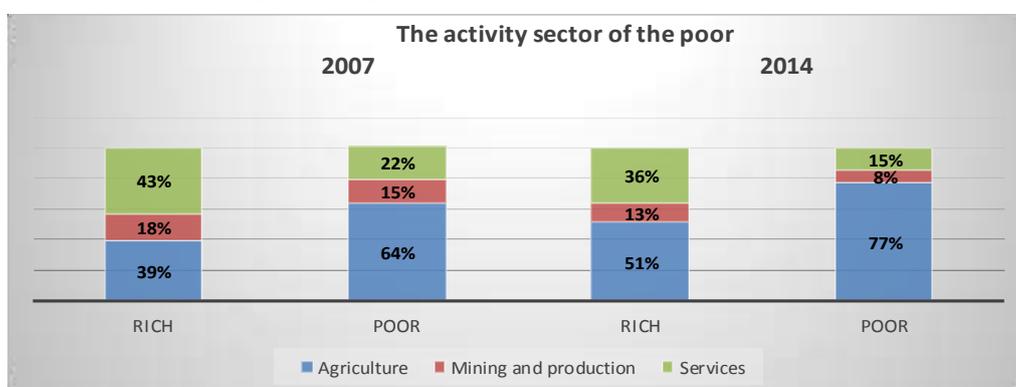


Figure 2. The activity sector of the poor in the Republic of Moldova

Source: *The World Bank calculations based on HBS*

Their activities are directed mainly towards the development of quantitative indicators of production volume, without taking into account the real needs of internal and external markets, quality aspect and production diversity.

Forty percent of the poor and the poorest are more likely to be used as labor in agriculture than in services. About 80 percent of the poor and 70 percent of the poorest, 40 percent of the population, are employed in agriculture. Taking into account the increased informality in agriculture in comparison with other sectors, this dependence on agricultural employment means that the rate of informality among the poor and among the poorest, 40 percent of population, is high. The volatility of the seasonal character of agriculture in the Republic of Moldova, including frequent climate shocks, additional trade restrictions imposed by Russia for certain agricultural products, means that these workers suffer high incomes fluctuations and are extremely vulnerable. Though agricultural incomes continue to be a significant part of small households incomes, their importance has declined in recent years.

We also note that the economic growth in more intensive sectors in terms of workforce, as, for example, agriculture, has a greater impact on poverty reduction than less intensive activities in terms of workforce.

II. Channel of productivity in agriculture. Greater productivity in agriculture can increase the income of the rural population, thus creating the demand for industrial products manufactured domestically. Such connection effects can increase employment opportunities in the rural non-agricultural sector, indirectly generating rural income. Moreover, agricultural products can be exported earning foreign exchange to import capital goods.

The source of agricultural growth is also important for poverty reduction. Low productivity may be caused by several factors. The first factor is the lack of appropriate technologies and lack of adoption [4]. While the former calls for better targeting of the researches in the economies of developing countries and of their conditions, the latter requires reducing barriers to technology adoption. Of course, the problem of low productivity can also be a combination of both inappropriate technologies and barriers to adoption.

III. Channel of agricultural production. Some theoretical models consider that the agricultural sector decreases with economic development. From this point of view, the role of agriculture in economic development is to provide cheap food and low-wage employment in the modern sector.

Table 2

The share of agriculture in GDP, 2000-2015, %

Indicators	2000	2006	2010	2011	2012	2013	2014	2015
GDP, million lei	16020	44754	71885	82349	87847	100510	111757	121851
Global agricultural production, million lei	8268	13734	19873	22619	19693	23814	27254	27193
The share of agriculture in GDP, %	51,61	30,69	27,65	27,47	22,42	23,69	24,38	22,31

Source: *statistica.md*

Table 2 demonstrates this statement for the agriculture of the Republic of Moldovan: if by 2000 the share of agriculture in GDP was over 50%, now we are witnessing a contribution of approx. 22%

Although agriculture through its global production contributes to economic growth measured by GDP, this contribution is very modest. Since the land potential is limited, agricultural growth will have to come from the increase of productivity.

In addition, as to labor supply and food, agriculture plays an active role in the economic growth through important relationships of production and consumption. For example, agriculture can provide raw materials for non-agricultural production or inputs supply (raw materials, etc.) from the modern sector.

IV. Channel of agricultural prices. The fact that there are important links between traditional and modern sectors in developing countries makes agricultural growth an important tool for poverty reduction. Contributing to poverty reduction takes place directly through the effects of increasing agricultural employment and profitability, and indirectly, as increasing agricultural production leads to the creation of jobs in non-agricultural sectors of upstream and downstream in response to a bigger domestic demand.

Potentially lower food prices increase the purchasing power of poor consumers. The magnitude of these effects for poverty reduction depends on the specific circumstances of the economy. If, for example, technological progress in the agricultural sector causes labor-saving, agricultural employment may not necessarily increase [4].

The positive correlation between GDP growth for the agricultural sector and the increase in non-agricultural GDP can be explained by the effects of "first order" of agricultural growth, such as lower prices for food products, labor migration and capital flows from agriculture; and by the effects of "second order", such as improved nutritional intake that raises the productivity of workers [6].

V. Channel of imports and exports of agricultural products

The relationship between agricultural growth and global economic growth depends on the openness of a country in international trade.

Since agricultural growth goes hand in hand with economic growth in small and closed economies - where gains in agricultural productivity will lead to the effect of link-the relationship could be reversed in the case of open economies. When the country has a comparative advantage in agriculture, trade openness will attract resources from the modern sector to agriculture, which could be less productive than industry.

In a relatively small and open economy, like that of the Republic of Moldova, the valorization of agricultural trade benefits could be one of the possible ways to significant economic growth, increase of household income and poverty reduction. Taking into account that the local market is relatively small and has limited absorption capacity, in the near future agriculture will continue to be the essential source of Moldovan exports and export growth of agricultural production will have to have the potential to produce a positive impact on consumption and income for medium and long term. In its turn, this will serve as a major incentive for non-agricultural economy in rural areas. However, export growth will depend on Moldova's ability to operate profitably its comparative advantages and to connect them quickly to the international trading system.

CONCLUSIONS

Extensive regulations, inconsistencies of various policies and of their implementation have caused the expansion of shadow economy, the creation of obstacles to the emergence and development of new businesses, worsening investment climate. One of the reasons for the inability of the Republic of Moldova to use its comparative advantages are underdeveloped and distorted agricultural markets, which constitutes a major barrier to trade and reduces the financial gains resulting from the activities of agricultural producers. Local prices used by agricultural producers are much lower than the international ones and this fact affects the profitability of farming entities. By cumulative effect, these distortions reduce agricultural incomes, conditioning lack of working capital and lack of new

investments, which, in their turn, cause reduced productivity and poor quality products that are uncompetitive on export markets, which further limits the revenues.

These deficiencies can be found in low performance of big agricultural entities, but they can be extended to the entire sector.

It's beyond dispute that the lack of own financial resources of most farmers is determined by the low competitiveness of their production, both on domestic and foreign markets. Thus, the financial condition of the majority of processing enterprises does not allow them to credit permanently agricultural enterprises from future harvest account.

We believe that in the Republic of Moldova, agricultural units are practically not launched in sufficient amounts in development strategies of integrated type, which would bring together farmers, processors of agricultural products, trade networks, consumers, etc, under mutual financial and economic benefits.

Moldova must still maintain macroeconomic stability as a basis for agricultural recovery and poverty reduction.

It is necessary to promote sustainable economic growth in the agricultural sector by improving competitiveness and encouraging private initiatives. The implementation of agricultural policies and of the policies providing support to agricultural structures will contribute to the development of viable rural market economies.

The paradigm of economic development involves attracting investments in agriculture, exporting industries development, promotion of the society based on knowledge, including strengthening of research and development activities, innovation and technology transfer aimed at efficiency and competitiveness. Changing the paradigm of the economic development of the.

Republic of Moldova will be achieved by ensuring an equitable distribution of economic development benefits for all social layers. The paradigm shift cannot be achieved just through a set of instant reforms. The promoted reforms will serve only as a first step in establishing new ways of activity and in addressing the problems by the Government and by the whole society.

Only if we learn to work together at this pace, the Republic of Moldova will become a competitive country in Europe in terms of ability to reform and innovation, and the economic development will speed up the pace to reduce in the near future the gap between our country and developed European economies.

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