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ESTIMATING THE SUPPORT FOR THE AGRICULTURAL SECTOR IN THE REPUBLIC OF MOLDOVA

ABSTRACT

The paper aims to evaluate the level and structure of support to farmers in the Republic of Moldova resulting from agricultural policy, reveals the support structure trends and makes it possible to analyze the support to farmers in Moldova compared to other countries, using the OECD PSE methodology. The paper proposes strategies for increasing the efficiency of public support to agriculture in the Republic of Moldova, with particular emphasis on the growth of exports and suggests a series of recommendations on the policy actions to be taken.

Key words: agricultural policy, support, OECD methodology, PSE (producer support estimate).

JEL Classification: Q18.

1. INTRODUCTION

The agricultural sector of the Republic of Moldova has undergone significant changes in the last years. A specific emphasis has been recently made on the modernization and development of the agricultural sector. Only a limited number of studies evaluating the current state of agriculture support in Moldova have been conducted so far, and this paper represents an attempt to apply the PSE methodology to develop policy strategies for agricultural export promotion.

The paper begins with an overview of agricultural policy objectives in the Republic of Moldova, and then provides an analysis of policy programs and budget funds disbursed to support agriculture. At the same time, an emphasis is made on the analysis of PSE and other support coefficients. The article provides a set of recommendations for agricultural policy and export promotion.

2. MATERIAL AND METHOD

The estimation of the policy support coefficients is based on the law of one price rule, and it was described, among other papers in: Tsakok, 1990. The PSE coefficient was developed by Professor Tim Josling in the 1970s (Josling, 1973),

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being later expanded and further developed by OECD. The World Bank also made efforts in application of the support coefficient to measuring agricultural policy effects in developing countries (Anderson and Valdes, 2008).

The application of the PSE methodology by OECD (OECD, 2010) provides a standardized quantitative method for measuring the support to agricultural sector. The quantitative policy analysis is often based on the benchmark comparisons. The observed market conditions are compared with benchmark, or non-policy situation. The methodology is based on comparing output producer prices (farm gate prices) or farm input prices (fertilizers, seeds, fuel, etc.) with expected prices, without policy interventions, e.g. market equilibrium or reference prices.

3. RESULTS AND DISCUSSIONS

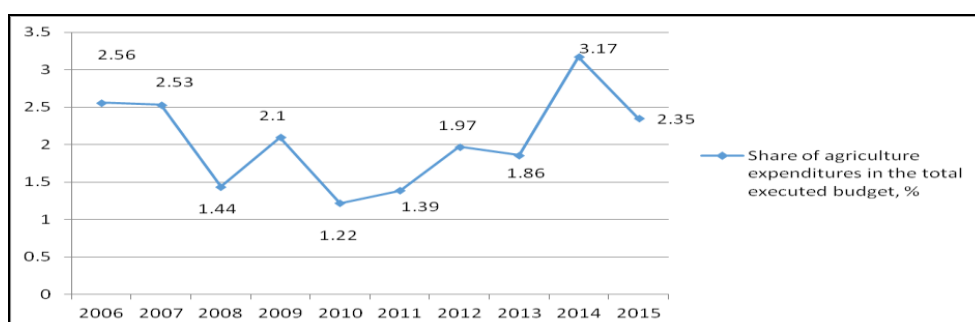
The government policy in the Republic of Moldova is guided by the National Development Strategy “Moldova 2020”, the main objective of which is the acceleration of the economic growth and poverty alleviation in the Republic of Moldova.

Among other policy documents affecting the development of agricultural and rural sectors, we can mention the following: National Strategy on Agriculture and Rural Development for the Period 2014–2020, Small and Medium Enterprise Sector Development Strategy for the Years 2012–2020, Strategy for Domestic Trade Development in the Republic of Moldova for the Years 2014–2020, etc.

The implementation of the strategic policy documents is carried out by the central administrative authorities, in accordance with their area of competence, namely: Ministry of Agriculture, Rural Development and Environment (MARDE), which develops and promotes policies for the sustainable development of the agri-food sector and rural areas, being responsible for achieving synergy on coherent agriculture and rural development; The Agency for Interventions and Payments in Agriculture (AIPA, subsidiary of MARDE), which manages financial resources to support agricultural producers and authorizes payments and controls all financial resources; National Food Safety Agency (NFSA, subsidiary of MARDE) implements policies in the spheres of food safety, veterinary sector, animal husbandry, crop protection and crop quarantine, seed control, quality of primary products and animal feed; Ministry of Economy and Infrastructure that develops and implements policies and programs to support rural development, focused on enhancing the competitiveness of small and medium enterprises, rural diversification, diversification of exports and expanding the markets for local products; other ministries that also develop and promote measures affecting agriculture or rural areas, in accordance to their respective competences.

3.1. BUDGET TRANSFERS TO AGRICULTURE

From 2012 to 2015, budget transfers to agriculture and rural development increased from 698 million MDL to 1093 million MDL. The growth was driven by an effort to modernize agriculture, set as one of strategic policy priorities. At the same time, the volatility of budget expenditures was very high in this period, and a decrease in spending was noticed in 2008 and 2010. (see Figure 1).



Source: BOOST database.

Figure 1. Share of agriculture expenditures in total executed national public budget, %.

The Republic of Moldova has made important steps in improving the budget composition in order to align it with government priorities for the sector. A large and increasing share of capital spending facilitated an upgrade of obsolete infrastructure. More efforts are dedicated to sustainable use of natural resources and risk management. Most budgetary expenditures in agriculture are related to physical infrastructure and business development for the sector modernization, and to key services, with significant allocations for food safety and agricultural education. Smaller share of the budget is spent on research, extension services and irrigation as well as for viticulture and wine development, support of high-value markets and risk mitigation and anti-hail programs in order to make agriculture more resilient to weather risks.

3.2. FINANCING OF SUPPORT TO AGRICULTURE IN MOLDOVA

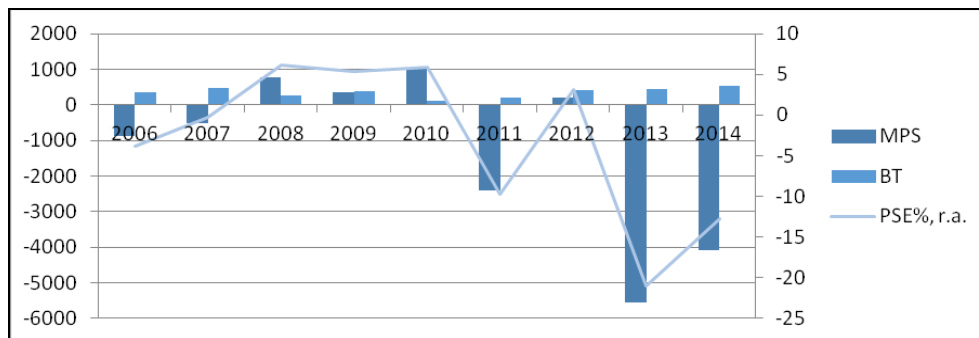
Domestic support to agriculture in the Republic of Moldova in 2006–2016 is carried out on the following directions: area payments for organic farming, payments for relief from natural disasters, subsidies for energy used for irrigation, insurance subsidies, agricultural machinery and equipment, boosting investment in equipment and technological renovation of livestock farms, stimulating investment in vine plantations, stimulating investment in the establishment of perennial plantations, anti-icing installations and anti-hail systems, investment subsidies for

crop production on protected areas (greenhouses, plastic tunnels), stimulating the purchase of breeding cattle and maintaining the genetic fund, boosting investments in post-harvesting and processing facilities, stimulating farmers' access to finance, stimulating agricultural land consolidation, agricultural knowledge generation, agricultural knowledge transfer (research), agricultural product safety and inspection, pest and disease inspection and the control, development and maintenance of infrastructure, the animal identification and traceability system, marketing and promotion, public stockholding (AIPA, BOOST, WTO, 2016.)

The quantitative effects of agricultural policy in Moldova and other CIS countries using NPR coefficients were explored by Volk *et al.* (2015) in their report on CIS trade potential. NPR is a simplified version of the methodology, used in order to ensure comparability between CIS countries. Here we attempt to build on those results and expand the approach by calculating PSE and other OECD coefficients.

OECD recommends that the average share of the sum of the values of the selected set of representative commodities (MPS commodities) in the total value of agricultural production for the last 3 years is not less than 70%, and the share of each selected commodity is >1%. The representative set of commodities selected in the Republic of Moldova is the following: pork, poultry, maize, sunflower, table grapes, wheat, beef, eggs, sugar beet, potatoes, with a total of 82.6%.

The PSE indicator measures the level of support to agricultural producers. According to the research carried out, PSE in the Republic of Moldova is low and volatile, ranging from +6% to -21% in 2006–2014. The volatility of MPS (Market Price Support) and BT (Budget Transfers) is observed throughout the years, with a higher share of MPS in PSE, thus the low level of BT being unable to compensate the negative MPS, resulting in negative PSE (see Figure 2).



Source: experts' own estimations.

Figure 2. Producer Support Estimate composition in Moldova, 2006–2014.

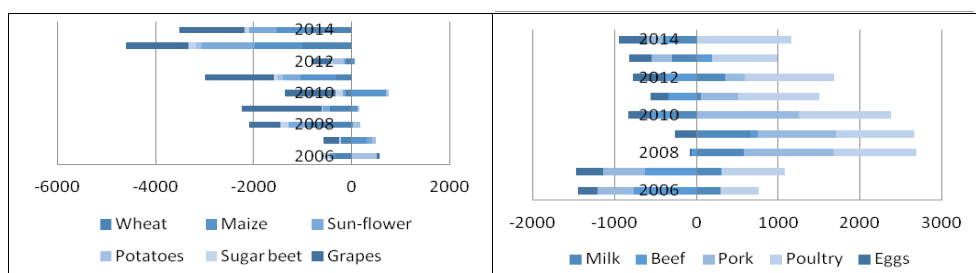
3.3. MARKET PRICE SUPPORT

The level of support by commodity is measured by MPS (transfers from consumers and taxpayers measured by the price difference).

Market price support is the form of support directly affecting the production decisions, and therefore distorting markets and trade. Negative market price support in recent years in Moldova is favourable for the consumers of agricultural products and indicates potential price competitiveness for exported commodities.

Government's policy of regulating the price mark-ups along the value chain, is aimed at protecting consumers, and contributes to the negative MPS, or taxation of agricultural producers. In the absence of this type of policy, producers would benefit from better transmission of the world prices to domestic markets.

The selected commodities have been grouped into several categories by the level of support (see Figure 3).



Source: experts' own estimations.

Figure 3. Market Price Support in Moldova, mid. MDL.

Thus, for cereals, oilseeds and sugar, MPS generally stayed negative. The level of cereal production is volatile and vulnerable to weather events, mainly to drought. Although productivity is increasing, it is still lower than in the EU countries.

Particularly for wheat and sugar, MPS was negative during the period of study. For maize, it was positive in most years, but became negative in 2013–2014. At the same time, the sunflower subsector had a high contribution to the level of national PSE.

Among the recommendations for this sector, the following can be mentioned: price stabilization mechanisms, such as more widespread use of warehouse receipts, commodity exchanges; strengthening the value chain infrastructure, such as efficient storage facilities, transportation, simplified and fast-track export procedures and other means of facilitating exports and reducing administrative and other costs; improvement of crop cultivation technologies in order to achieve production sustainability.

For table grapes, the price dynamics was similar to that in the cereal markets, where an increase in 2012 is followed by a sharp decline in 2013 with a recovery in 2014. MPS for grapes has been negative since 2007, with the price gap narrowing

in 2014. The lower prices, however, cannot represent a comparative advantage for the Moldovan wine producers without increasing efficiency of all value chain components and special efforts in marketing. MPS for potatoes was positive in 2006–2010 and negative since 2011. Phytosanitary barriers play an important role in creating a price gap between world and domestic prices for exportable commodities.

The recommendations for this subsector refer to: value chain development: processing, infrastructure, investment support; marketing and promotion efforts on external markets; consulting services to producers to assist them in identifying different market niches and adjusting their production patterns by size and beverage type to meet the demand.

For the livestock sector, especially for milk, MPS had negative values in 2010, 2013 and 2014. The pork subsector has been positive in most years, with a negative trend in 2013 and 2014. MPS in poultry had the highest positive values in the analyzed period, while MPS in eggs remained negative.

Among the recommendations we can mention: infrastructure development support: support to investments in cold transportation and storage, processing and transportation infrastructure in the form of facilitating access to credit and public investments in transportation; technology transfer for new models of farms according to EU standards under the form of support to investment and knowledge distribution.

3.4. BUDGET SUPPORT EVALUATION

Budget Transfers to agricultural producers in Moldova are mostly based on AIPA transfers to agricultural producers in the form of subsidies. In the period 2006 – 2008, most subsidies were granted for VAT reimbursement, investments on agricultural machinery and equipment, fertilizers, etc. At the opposite pole, from 2012 to 2016, post-harvest and processing investments, investments in perennial plantations and agricultural machinery and equipment were mostly subsidized (see Table 1).

Table 1

Programs of state support under AIPA
of Moldovan agricultural producers in 2015–2016, thousand lei

	2015	2016	% 2016 to 2015
Priority I. Increasing the competitiveness of the agri-food sector through restructuring and modernization			
Measure 1. Investments on agricultural holdings for restructuring and adaptation to European Union standards			
Sub-measure 1.1 Stimulation of investments for the production of vegetables and fruits on protected areas (winter greenhouses and tunnels)	19486,0	14589,7	74,9

Table 1 (continued)

Sub-measure 1.2.A. Anti-freeze and anti-hail systems		4 095,8	
Sub-measure 1.2.D. Deforestation		43 103,6	
Sub-measure 1.2. P Stimulation of investments in setting-up multi-annual plantations, orchards	61 485	68 079,3	221,8
Sub-measure 1.2. Stimulating investments in setting-up vineyards		21 124,1	
Sub-measure 1.3 Stimulating investments in agricultural machinery	61 923	110 623	178,6
Sub-measure 1.4 Stimulating investments in infrastructure and technological upgrading of livestock farms	20 889	34 845,3	166,8
Sub-measure 1.5 Stimulating the acquisition of purebred animals and the content of the genetic fund	23 967	22 884,5	95,5
Sub-measure 1.7. Stimulating agricultural producers crediting by commercial banks and non-banking financial institutions.	26 934	76 397,3	283,6
Sub-measure 1.7. Stimulating the risk insurance mechanism in agriculture	30 858	9 092,3	29,5
Measure 2. Investments in the production and marketing of agricultural products			
Sub-measure 1.6. Stimulating investments in the development of post-harvest processing and processing infrastructure	76 360		-
1.6.1. Packaging houses and refrigerators for storing fruits, grapes and vegetables		62 953	-
1.6.2. Processing, drying and freezing of fruits, grapes, vegetables and potatoes		25 686,6	-
1.6.3. Processing, drying and conditioning of cereals, oilseeds, sunflowers and soybeans		16 115,5	-
1.6.4. Primary processing, packaging, cooling, freezing and storage of meat, processing, packaging and storage of milk, as well as the analysis of bee honey		3 560,7	-
Sub-measure 1.8. Stimulating the creation and functioning of agricultural producer groups.		215,1	-
Priority II. Ensuring sustainable management of natural resources			
Measure 3. Preparing for the implementation of the actions related to environment and rural area			
Sub-measure 2.1. Stimulating investments in the consolidation of agricultural land.	15	15,2	101,3
Sub-measure 2.2. Stimulating investments for the purchase of irrigation equipment.	8 227	21 813,3	265,1
Sub-measure 2.3. Stimulating agricultural producers for compensation of irrigation costs.	1 059	3 178,5	300,1
Sub-measure 2.4. Stimulating investments in the purchase of no-till and mini-till equipment.	12 555	18 165,4	144,7
Sub-measure 2.5. Support to the promotion and development of organic agriculture.		596	-
Priority III. Increasing investments in the physical infrastructure and services infrastructure in rural areas, including the infrastructure of agricultural enterprises located outside the localities			
Sub-measure 3.1 Support for investments in the infrastructure of agricultural enterprises located outside the localities (only in 2015)	2 166	-	-
Measure 4. Improvement and development of rural infrastructure	-	4 159	-
Measure 5. Consultancy and training services	-	10	-
Total	345 927	561 303,2	162,3

Source: www.aipa.gov.md.

4. CONCLUSIONS

Agriculture is a key sector for the economic development in Moldova, however, the fiscal resources for its support are limited.

There are positive trends in the agri-food sector development in Moldova in recent years. However, this sector's vulnerability to natural, economic and trade hazards, remains very high.

The results of PSE estimations in Moldova suggest the following observations:

- The level of transfers to agricultural producers, measured by PSE, is low or negative (the farmers receive lower prices for their output as a result of the policy) during the whole period of study.
- Aggregate national MPS in Moldova is a combination of high level of support in poultry sub-sector and implicit taxation in the rest of the sector.

The low protection level of local markets, demonstrated by PSE indicators, indicates that continued integration with the world markets would be beneficial for producers. Low farm-gate prices open opportunities for competitiveness, on condition of improved value chains and continued investment in hard and soft infrastructure.

The high absolute value of national MPS indicates lack of price transmission between world and domestic markets and disintegration of the commodity value chains. Such disintegration is explained by both policy and non-policy factors.

The following policy actions are recommended to address the above-listed aspects.

1. Improving access to information both for market players and policy makers
2. Improvement of policy planning and execution, establishing a full cycle linking policy making, planning and budgeting:
3. Value chain development
4. Export promotion and international market integration.

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