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Lessons from the mid-term evaluation of the ARDP Kosovo

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Abstract

Agriculture is a key sector of Kosovo's economy, which can substantially contribute to the general economic development. It provides income for a large number of families but self-sufficiency of agricultural products is low. Exports of goods and services are increasing but still cover only one third of total imports. Trade deficits have stayed above 40% of GDP and have even expanded lately. Production of goods is concentrated on extracting raw materials which also dominate the export of goods. There has been relatively high growth over the last three years, but job creation is lagging and not enough jobs are created to reduce labour market pressures, particularly in rural areas. An Agriculture and Rural Development Program is operating to boost production and income in rural areas. Its measures are modeled on EU guidelines but more efficient measures exist to boost production.

Keywords: rural development, direct payments, investment, policy, evaluation.

Introduction

The Agriculture and Rural Development Program (ARDP) 2007-2013 of the Republic of Kosovo was established in April 2007 and last updated in September 2010. It takes into account the EU's Common Agriculture Policy (CAP), the EU's Instrument for Pre-Accession Assistance (IPA) for the Western Balkans, and the European Partnership which aims at the improvement of competitiveness of agriculture and the agro-processing sector. ARDP states that its major objectives were to:

- provide a framework that will help Kosovo to restructure its agricultural sector in line with that of the EU and
- Improve the standard of living of its rural population in Kosovo, i.e. narrowing urban and rural disparities, providing support to less developed areas, and narrowing disparities between Kosovo and the EU.

ARDP gradually introduced a range of policies, most of them modelled on the EU direct payments scheme or following IPA guidelines on rural development (IPARD). Specifically it specified a) Direct Payments for milk cows, heifers, sheep, goats, winter wheat, maize, table grapes and fuel and b) rural development measures for (1) Vocational training, (2) Restructuring physical potential in the agri-rural sector (milk, fruit, vegetables, vineyards and table grapes, eggs, and land consolidation), (3) Managing water resources for agriculture, (4) Improving processing and marketing of agricultural products, (5) Improving natural resource management (afforestation, manure storage), (6) Farm diversification and alternative activities in rural areas, (7) Improvement of rural infrastructure and maintenance of rural heritage, and (8) Support for local community development strategies. However measures (6) and (7) had not yet been implemented until 2011 due to budgetary limitations. By that time 31.729 million € of public money had been spent, of which 17.516 million € for Rural Development.

A comprehensive mid-term evaluation (MTE) of ARDP 2007-2013 was performed in 2012 (Ortner 2013) and was available as an input to the development of the ARDP 2014-2020 which started in 2013.

Objectives of the paper

The objective of this paper is to analyze whether some major findings and recommendations of the MTE are having an effect on the new program and its performance. Specifically this paper addresses the following questions:

- Is the new program more attuned to the needs of agriculture and rural areas?
- What opportunities exist to use the limited public financial resources more efficiently to increase the competitiveness of the agricultural sector of Kosovo?

Following through these questions, we first consider the objectives of policy which usually are presented as a set of targets which point into different directions. A movement toward one target usually is accompanied by positive and negative movements toward other targets. A Pareto efficient policy is one in which it is impossible to achieve progress toward a target without achieving a cutback on another target. In this context compliance with limited resources is an implicit target but could be replaced by the level of taxation as a policy choice.

An optimal policy mix depends on the relative weights between targets. Shifting the emphasis between targets involves tradeoffs which have to be considered and evaluated according to the benefits and costs which ensue for different sections of the population. An analysis of policy choices has to start with the objectives of policy, the relationship between them and their relative importance. It appears that enhancing production is an important target in Kosovo, and we conclude that the efficiency of policy measures should be assessed in respect of this target. This leads us to suggest measures which are not provided for in the EU guidelines. The paper finishes with some observations and suggestions for further improvement of the new ARDP.

Objectives of policy

The needs of agriculture and rural areas can be seen in the recommendations that are presented in ARDP 2007-2013 following from numerous SWOT analyses. The improvement of competitiveness is a major common theme of these recommendations which state, f.i.: “agricultural strategy for cereals must be focused on land consolidation, land market and land rental market in order to help the most efficient family farms to reach commercial size”, “increase the areas of commercial and semi-commercial orchards”, “increase the yield per unit”, “realize an expansion of the dairy sector”, “improving the breed” of livestock, etc.

ARDP emphasizes “the following general objectives for agricultural and rural development in Kosovo:

- additional income for farmers and rural dwellers, leading to improved living standards and working conditions in rural areas;
- improved competitiveness and efficiency of primary agricultural production, in order to achieve import substitution and take advantage of export markets;
- improved processing and marketing of agricultural produce, through increased efficiency and competitiveness;
- improved on-farm/in-factory quality and hygiene standards;

- sustainable rural development and improved quality of life (including infrastructure) through promotion of farming and other economic activities that are in harmony with the environment;
- creation of employment opportunities in rural areas, particularly through rural diversification; and
- alignment of Kosovo's agriculture with that of the EU.

Similar objectives of agricultural, rural development and environmental policies are pursued by most countries, although with different determination and policy measures, as reported by OECD (2013). "Production enhancing support policies are often motivated by stated self-sufficiency targets ...", "motivated by concerns about food security for their consumers." Most countries pursue these policies by maintaining prices received by farmers above the levels of international markets.

Self-sufficiency targets make sense only if the objective is to improve food security. If sufficient supplies can be bought without constraints on world markets, anything that can be produced at a comparative advantage should be produced and sold to pay for imports, including those of food. But Kosovo's agriculture could be at a comparative advantage if its resources were used more efficiently. If we accept this proposition, then the question to be answered is: What policies are most effective to increase the value of production of some agricultural products in which the country is not self-sufficient? Note that progress in this direction would increase the remuneration of inputs used, including labor.

Performance indicators

Obviously the objectives of policy to generate additional income and to increase competitiveness of agriculture and forestry are correlated. "Competitiveness pertains to the ability and performance of a firm, sub-sector or country to sell and supply goods and services in a given market, in relation to the ability and performance of other firms, sub-sectors or countries in the same market" (Wikipedia). According to this definition competitiveness depends on the relative performances of firms, sectors or countries to sell in a particular market. Relative abilities and performances are obtained by comparisons either across firms or sectors or over time.

Performance indicators can be subdivided into physical and monetary indicators and calculated depending on data availability. Physical indicators are f.i. production, supply, sales, market share, and employment, productivity of inputs, and structural characteristics which are usually correlated with productivity. Monetary indicators take into account the values of output and inputs and are, f.i. value of production, revenue (turnover), gross value added, and returns on assets, labor productivity, and income. Income is thus one of the indicators of competitiveness, albeit a special one as it is specifically mentioned as a policy objective.

Indicators for competitiveness at the individual firm level are among others (Spicka, 2013)

- Return on Assets (ROA) = Earnings before Interest and Taxes (EBIT) / Total Assets
- Return on Sales (ROS, Profit Margin) = EBIT / Total Turnover
- Value Added per Staff Costs

Competitiveness of agricultural sectors can be gauged by, f. i.

- Farm structure = commercial farms / total number of farms
- Self-sufficiency ratio = production / domestic disappearance
- Import share = imports / domestic disappearance, export share = exports / production
- Revealed Comparative Advantage, Relative Trade Advantage, Revealed Competitiveness
- Gross Value Added (GVA)
- Labour productivity = GVA / employment
- Total factor productivity

The levels of indicators depend on statistics whose reliability and accuracy is sometimes questionable or unknown. At the individual farm level, a comprehensive Farm Accountancy Data Network would overcome this problem. In Kosovo, FADN is being developed but not yet not representative for agricultural sectors or types of farms. At the sector level, enhanced supply balances have been developed with which it is possible to trace self-sufficiency ratios for major agricultural sectors over time. Note that self-sufficiency ratios are independent of the extent to which products are sold in the market or consumed directly on-farm; there is no problem with that because commercialization is not a policy objective.

Efficiency of policies

The efficiency of policies depends on the extent to which they address their objectives while minimizing deadweight effects, i.e. on the targets and how these are pursued by the set of measures that are implemented. An efficient policy is the one that achieves its objective at least cost. The concept of transfer efficiency which was introduced by OECD (2003) considers the effect of agricultural policies with respect to their efficiency to transfer income to farm households. On the basis of reasonable assumptions about elasticities, transfer efficiency is highest for area payments (48%), followed by deficiency payments (25%) and market price support (24%) and input subsidies (17%). The higher the share of total market receipts going to pay for factors supplied by farm households, the higher is the transfer efficiency. “When all farmland is owned by farm households, area payments constitute a highly efficient means of supporting farm household income.” In that case, which is the case in Kosovo, the transfer efficiency of area payments can be up to 96%. However, as noted by OECD (2003), this kind of efficiency is diminishing to the extent that area payments become capitalized into land prices.

Quite different levels of efficiency obtain if we consider another goal of agricultural policies, namely to achieve higher market shares in the domestic market. While this goal is certainly legitimate and actually pursued, some of the policies with which it is pursued are contentious because they distort international competition by conveying a competitive advantage to domestic producers over foreign producers. According to the rules laid out in the WTO agreement on agriculture, the sum of market price support and subsidies which are directly linked to quantity of production or inputs used and not exempt from inclusion in the so-called “aggregate measurement of support” (the so-called amber box) is subject to an upper limit. Since Kosovo and other Western Balkan countries are not members of WTO, they do not face these limits.

However the Stabilization and Association Agreement (SAA) between the European Union and Kosovo which was completed May 2, 2014 may contain some limitations concerning which policies are acceptable. Anyway the goal of Kosovo to align its agriculture with that of the EU

implies that EU rules should be adopted. EU pre-accession funds are applied to help beneficiary countries to make political and economic reforms, preparing them for the rights and obligations that come with EU membership. One of the EU's priorities for Kosovo is to enable it to cope with competitive pressure and market forces within the Union over the long term. That would not preclude the possibility to confer to it a competitive advantage in the short run.

All Western Balkan countries are beneficiaries of Autonomous Trade Measures of the EU which allow these countries duty free access to the EU market for nearly all products originating from the region (with the exception of wine, sugar, and some beef and fisheries products). Accordingly, exports of these countries to the EU are subject to competition with products from EU member states. Domestic production is subject to free competition from products of Serbia and Montenegro and almost free competition from products of Macedonia and Albania (customs tariff: 1%). For goods imported from all other countries a tariff of 10% applies with the exception of wheat, corn, oil and oil products, artificial fertilizers, raw materials for agrobusiness and some other duty-free imports (Republic of Kosovo).

Because self-sufficiency is less than 100% for agricultural products, the result of these import measures is that, in theory, producer prices of wheat, maize and oilseeds are the same as in the EU, and prices of other agricultural products are 10% higher than in the EU due to tariffs. The market distortions which follow from these different tariff levels are somewhat reduced by area payments of 100 €/ha for wheat, maize and sunflower (Republic of Kosovo, 2013). But area payments are not the most efficient measures to enhance production because they constitute an incentive to expand area but none to increase yields per hectare.

Measures to foster competitiveness

In this paper we analyze the two most relevant policies whose effect is to increase production and the self-sufficiency level: Price premiums and investment support. Market price support has the same effect on producers as a price premium. The effect on consumers is different because in the case of market price support consumers face higher prices in the market and consequently reduce their consumption. In the case of price premiums the market price is not affected, and the costs of support accrue to taxpayers. Market price support and price premiums provide incentives to expand production by using additional area (and livestock) and improving yields per hectare (and per animal). Support tied to prices has the additional advantage that it can be specified in such a way that it motivates farmers to produce higher quality products which can be sold in the market at higher prices. The effect of price premiums can therefore be measured by the additional revenue that accrues to the supported sector over the long run relative to the cost to taxpayers and donors. To take into account the long run is important because with additional revenue farmers can buy more variable inputs and more investment goods and thereby enhance the production capacity during the useful life of the investment.

The alternative to price premiums is to pay investment support to enhance the production capacity in the long run. The effect of investment support depends on whether its purpose actually is to increase production rather than to improve the environment, animal welfare, working conditions, etc. The effect of investment support also depends on the deadweight effect, i.e. the share of outputs/outcomes that would have been secured also without intervention. Other so-called additionally effects are displacement, substitution, leakage, multipliers, crowding

in/out, and unintended consequences (Tyler et al., 2009). While the assessment of government intervention should be based on net effects, these are difficult to estimate. In the case of investment support the deadweight effect depends crucially on expected profitability of investments in the marketplace because if the profitability of investments is expected to be high, a high share of investments would occur even without government support (Ortner, 2012a). If expectations do not fluctuate, this problem diminishes. In 2012 in Kosovo, 20% of beneficiaries of investment grants would have invested the same without investment support, and 63% would have invested less (Ortner, 2012); that amounts to a deadweight effect of about 48%.

Methodology and results

The effects of investment support vs. price premiums on value of production will be estimated based on a stylized Cobb-Douglas production function with constant returns to scale in order to simplify the procedure:

$$\ln Y = a_0 + a_1 \ln X_1 + a_2 \ln X_2 + \dots$$

$$a_1 + a_2 + \dots = 1$$

Where Y is quantity of output, X_i is the quantity of input i, a_0 is a constant and a_i is the elasticity of production of input i.

If profit (π) is maximized each input is used to the extent that its marginal value product equals the price of the input, and the remuneration of any one input i ($R_i X_i$) equals its share (a_i) in total revenue (PY):

$$\text{Max } \pi = PY - \sum_i R_i X_i$$

$$\frac{\partial \pi}{\partial X_i} = a_i PY / X_i - R_i = 0$$

$$a_i PY = R_i X_i$$

where π is profit, P is the price of output Y, and R_i is the price of input i

Now consider the case of a production price subsidy which raises the price paid for Y and thereby the remuneration of every input by the same percentage level. This amounts to changes in quantities used and/or prices paid for inputs, depending on the supply elasticities of the respective inputs.

In the simplest case some supply elasticities are zero (for inputs whose supply is fixed) and some are infinite at their prevailing price (variable inputs). Accordingly the additional remuneration of inputs translates into an increase of either their price (for fixed inputs) or their quantity used (variable inputs). Assuming that the prices of capital and purchased inputs are fixed, the additional revenue which accrues to them is used to expand their quantity while the quantity of land and labor remains constant. Given the production elasticities in table 1 (last column), a 1% increase in the price of output brings about an expansion of production by 0.6 % (0.4% due to a 1% increase of purchased inputs and by 0.2% due to 1% additional capital). In reality, the annual expansion of production may be between 0.6 and 1.0% because land and labor input may increase rather than stay constant.

Table 1: Elasticities of production

	OECD (2003)	Austrian farms (2010-2012)	Kosovo (2011-2012)	Kosovo used
Land	0,2	0,08		0,10
Labour	0,2	0,26		0,30
Capital (depreciation+interest)		0,17		0,20
Purchased inputs	0,6	0,49	0,39	0,40

Sources: OECD (2003); own calculations based on BMLFUW (2013), Table 4.1.1; Republic of Kosovo (2013a)

How does production expand as a consequence of investment support? Spending the same amount as for a price premium, namely 1% of the value of production, on investment support in the form of a subsidized price of capital decreases the cost of capital by $1/0.20 = 5\%$. Consequently the optimal quantity of capital increases by 5% and output by 1%. This is more than can be expected from price support but there are some caveats.

Obviously support to capital investment distorts the use of inputs in favor of capital. In addition, in practice investment support is not provided as an interest subsidy but a grant to beneficiaries who meet certain conditions. These conditions mean that investment support is clearly specified to meet some other targets in addition to boosting production, and the full potential to boosting production will not be realized. Furthermore these conditions mean that the beneficiaries of support have to be selected according to certain criteria, which boosts administrative costs.

As mentioned above, deadweight costs amounted to some 48 % of the costs of supported investments in Kosovo agriculture. The deadweight costs are partly offset by the incentive effect of support which depends on market conditions and expectations; it was assumed to be 100% of support by Ortner (2012a).

Conclusions

The current paper is based on the ARDP 2007-2013 of Kosovo, its mid-term evaluation and studies on other rural development programs in EU member states, the OECD's (2011) Evaluation of Agricultural Policy Reforms in the European Union and its annual "Agricultural policy monitoring and evaluation reports", the Green Report 2013 on Kosovo, and the draft ARDP 2014-2020 for Kosovo. The assessment focusses on likely improvements of efficiency of support over the previous period as a consequence of better targeting of measures and changes in their composition.

Analysis of trade suggests that Kosovo's agriculture is hardly competitive in comparison to its trading partners and strongly reliant on EU support to maintain a limited share in its domestic market. While price support would be the most efficient policy to boost production and the quality of products, the ARDP is following the lead of the EU favoring the adoption of direct payments whose efficiency to increase production is much lower. Investment support for the processing sector is driven mostly by administrative considerations. On-farm investments appear to be quite profitable (Ortner, 2012) but are limited by severe financial constraints of potential

investors. Efforts to objectively identify the most profitable investment opportunities would help to improve the efficiency of support but are accompanied by the corresponding costs of the administration.

The combined effect of the measures applied by the ARDP is not known in detail. It is important that this gap of knowledge is addressed because this will help to identify those measures that are the main levers on development and whose timely and properly funded implementation is crucial to the success of the programme.

A very large proportion of the budget is allocated to the development of farms. While there are good arguments for this bias, there are also grounds for suggesting that a better balance between agricultural and non-agricultural investments would be more effective in addressing the deep disparities in employment opportunity between rural and urban areas. These disparities are driving an exodus of ambitious young people from rural areas that will undermine the stability of rural communities if it is allowed to continue.

Concentrating public funds on agriculture appears to be not sufficient to maintain the competitiveness of rural vs urban areas. Rather investment support should be similar across sectors if its goal is to achieve economic growth. In respect of agricultural growth, direct payments based on area or livestock numbers are not the most efficient choice of measures but the introduction of price premiums for products with low self-sufficiency levels may run into opposition from international competitors.

Regarding the ARDP 2014-2020, for the most part the links between strengths, weaknesses, opportunities and threats are not clearly elaborated and therefore the SWOT tables do not present or lead to a linked-up narrative on the main issues. This overall picture of the positive and negative factors involved is an important introduction to the strategic arguments in favor of intervention on that issue (MAFRD 2013).

Table 2 Gaps addressed by ARDP 2014-2020

Lead context indicators	Kosovo	EU 27 average
Contribution of agricultural sector to total GDP	14.1%	1.2%
Balance of trade in agricultural products	- EUR 534.3 million	
Labor productivity / AWU in EUR	EUR 3,327	EUR 14,967
Average physical farm size	1.49 ha	14.3 ha
Gross fixed capital formation as % of GVA	8.5%	54.0%
Environment and climate change		
Soil erosion (% of total agricultural area)	12.2%	6.0%
Energy use in agriculture ¹	36.82 kg oe/ha	66.8 kg oe/ha
Socio economic and rural situation		
Employment in agriculture as a proportion of total employment	25.3%	4.7%
Unemployment rate in rural areas (all age groups)	40.10%	10.1%
15 -25 age group	60.2%	22.7%
Poverty rate in rural areas	31.5 %	29%

Source: MAFRD (2013)

1 oe = oil equivalent per ha

The data in table 2 clearly demonstrates that:

- In Kosovo the agri-food sector is a much more important component of the national economy
- There is a very large opportunity for the substitution of imported food with Kosovar produce
- The level of labor productivity (competitiveness) of the agri food sector is very low
- The small size of Kosovar farms and the low level of investment could be important structural causes of low competitiveness
- A much larger proportion of the soil in Kosovo is subject to erosion
- The unemployment rate in rural areas is very high, especially among young people
- A large proportion of rural households in Kosovo are below the poverty line

The most important development needs have been adequately defined but there is room for improvement in the following respects:

- The introduction of some data in the baseline analysis to verify and quantify some of the listed strengths and weaknesses
- The quantification of more of the common context indicators for agricultural competitiveness, and more benchmarking of the baseline indicators to provide a perspective on the level of development needs in Kosovo
- More integration and referencing of stakeholder opinions and lessons from current or recent interventions to the baseline analysis
- The integration into the baseline analysis of valuable additional information provided in new sector studies
- Ensure that the baseline analysis, SWOT analysis and list of development needs are consistent in scope. In other words that the SWOT analysis is a complete summary of a

complete baseline analysis and that the list of development needs reflects all the potentials and barriers to agricultural and rural development identified in the SWOT table. This also applies in reverse; all the listed development needs must be verified and justified by the SWOT table and the baseline analysis (MAFRD 2013).

The rural development needs that are prioritized by the ARDP correspond well with the development needs that are targeted by IPA (MFRD 2013). A commitment to the horizontal objectives of the EU development programs, mitigation of climate change and social inclusion are reflected in the project selection criteria for all measures. However, there is little analysis of the issues that need to be addressed and the opportunities for doing so. The current paper provided some thoughts and suggestions to that end.

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