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# Efficiency and Social Impact of Public Policies and Third Sector Practices in Bulgaria

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**Abstract:** The consequent enlargement of the European Union in 2004 and 2007 gave the new-member-states an access to programs and financial sources with significant capacity and impact. The present paper aims to analyze the influence of the social policy framework over the public service delivery in Bulgaria. The first part of the paper is devoted to the general categorization of social services' suppliers and the already established mechanism of their functioning. In the second part the focus on the conceptual framework introduces the main dimensions of the policy, institutional regulations and operational programs. The third part provides empirical results from the efficiency analysis of the social programs implementation and discussion on their impact.

**Keywords:** providers of social services, social enterprise, social model, Stochastic Frontier Analysis (SFA).

#### Introduction

Increased pressure on public balances and the globalization process have imposed a significant control and new requirements over the distribution and utilization of public resources in the European member-states. Measuring efficiency of public spending has become an important factor for maintaining fiscal discipline requested

by the Stability and Growth Pact (SGP) and an instrument for promoting the Lisbon agenda's structural reform. This also proves as a fruitful field of research, and apparently quite challenging in view of the various factors which should be taken into account. As one of the most significant constraints appears the public sector management, in particular regional and local capacity for regulation,

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planning and budgeting; linkages with the civil society; and dynamic participation of private organizations in providing social services. Considering the contribution and importance of above mentioned enterprises, their development and entrepreneurial dynamics have initiated active political and scientific debating. EMES scholars introduced a definition of social enterprise to emphasize the necessity of a wider recognition of a successful new business model solely envisaged for the achievement of social purposes. This definition relies on a set of social and economic criteria with the goal of identifying both newly developed organizations third and sector initiatives that were refashioned by a new entrepreneurial dynamic (Borzaga, Defourny, 2001). The rise and influence of the third sector has led to an interest in assessing the efficiency and social impact of its social initiatives. Recent approaches to measuring social impact refer to application of techniques for program and project evaluation, such as cost benefit analysis and impact measurement frameworks. Meanwhile there is a residual interest in social program evaluation (Zappala, Lyons, 2009).

Early studies in the field of measuring efficiency originate by the interest towards the performance of the industrial and agricultural companies. Traditional approaches are easier to be applied in the manufacturing sector, taking into account the input and output quantitative indicators and price information. The general interest in measurement has opened the prospect of micro-level approaches in studies that develop new perspectives on how to define efficiency and productivity

and how to calculate benchmark technology. One of the most debated findings is the particular inefficiency's sources, which usually are addressed to the deficiency in applying technology and the suboptimal allocation of resources. Considering the not-forprofit nature of the public services and the role of the local governments, it is more difficult to define and apply appropriate indicators that represent the level of the market prices, the quality of the services provided and the impact achieved. There are two main groups of studies on the efficiency of local governments and public spending. The first one evaluate the 'global' efficiency, in the meaning of all services provides by the municipalities. Athanassopoulos and Triantis (1998) have studied the efficiency of 172 Greek municipalities, taking into account current expenditures as an input indicator, and the number of resident families, average residential area, building area, industrial area and tourism area as output indicators. Similar studies are provided by Sousa and Ramos (1999) for Brasilian municipalities, Afonso and Fernandes (2005) for Portuguese municipalities, and more recently Balaguer-Coll, Prior-Jimenez Vela-Bargues and (2007) for Valencian municipalities. One unifying characteristic of these studies is the implementation of the nonparametric approach (DEA). The second group of studies evaluates efficiency of particular local services provided, such as waste collection (Worthington and Dollery, 2001); municipal police (Diez-Ticio and Mancebn, 2002); and water services (Garcia-Sanchez, 2006). Besides studying the impact of particular

social services, recent analyses involve institutional framework and its characteristics. Boetti, Piacenza, Turati (2009) assess the impact of fiscal decentralization over the spending efficiency of Italian municipalities. Taking into account some political factors, the efficiency scores of 262 municipalities in Turin are estimated by applying two different methodologies – one nonparametric and one parametric best-practice frontier. The study of Kirkpatrick, Parker and Zhang (2004) reports a range of statistical indicators and both DEA and stochastic frontier results in assessing performance of the state versus private sector provision of water services.

Stochastic frontier analysis is applied in order to measure how divergence in the quality of institutions, including: control of corruption, strength of the law and quality of the regulatory framework - explains cross-country differences in aggregate efficiency (Meon, Weill, 2006). The relationship between foreign direct investment and the rate of growth of Gross Domestic Product is also developed through quantitative and comprehensive results obtained from the same analysis (Wijeweera, Villano, Dollery, 2004). This importance of the public sector management is emphasized by the World Bank in its Global Monitoring Report (2005), in which the upgrading of management and controlling corruption are appointed as priorities. The quality of the policy and institutions received quantitative dimension with the introduction of the Institutional Assessment Index (CPIA), which includes four categories: management, economic structural policies, policies of social inclusion and

equity, and public sector management and institution. The primary role of this index is to assess the government assistance and support in poverty reduction and economic growth.

The present paper estimates the efficiency of eleven social programs, included in the budget of the Ministry of Labor and Social Policy for the period 2007-2013. It is organized in three parts, of which the *first* one aims to outline the key actors involved in the distribution and use of public spending. The second part concentrates on the legal framework which regulates the relationships in the management, implementation, control and potential beneficiaries of the social programs. The third part generalizes the results of the stochastic frontier analysis applied. The panel data model contains information about the expenditures related to each social program, included as a decision-making unit and about particular characteristics of the quality of policy and institutions.

## Public versus private suppliers of social services

Decentralization of key functions is inevitably advocated as a mean strengthening public sector management and improvement of overall system performance. Despite the fact that this process involves diminishing role of the central government in service delivery, certain functions and responsibilities should be performed at central level. These functions include elaboration of comprehensive legislative system and strong political backing; establishment of stable criteria and quality standards

in order to evaluate and assess the impact of the social services provided; and central capacity for monitoring and enforcement of these standards and regulations. What are the particular available policy instruments Bulgarian government to improve public sector management? In 2003 amendments of the Social Assistance Act substitute the licensing regime by the registration one (licensing regime is applicable only in cases of social services for children and is operated by the State Agency for Child Protection), which enlarges the opportunity for nongovernment organizations and private enterprises to provide social service. Following the text in paragraph 18 (1) of the Social Assistance Act, the social services are responsibility of the state, municipalities, physical persons registered under Commercial law, and legal persons<sup>1</sup>. This implies that in Bulgaria, providers of social services fall into two main categories - public providers and private providers. The law stipulates that these services are paid and they accumulate incomes from their social activity. Referring to paragraph 40c and 40d of the Social Assistance Act, as suppliers of social services the above mentioned legal categories are expected to provide their potential customers with project of the contract for provision of particular social service, as well as an individual plan after assessing the needs of every customer and the goals that are pursued.

A mechanism for more intensive dialogue with people and communities at risk is provided by the provisions of the National plan for fighting poverty and social exclusion (2000 – 2005) and by the Joint Memorandum on Social Inclusion of Republic Bulgaria. For the

next years the action plan for social inclusion for the period 2008-2010 applies the European 'Open Method of Coordination' in the area of social protection and social inclusion, which basic methods include: fixed guidelines and timetables, quantitative and qualitative indicators and benchmarks, translation of the European guidelines to the national and regional policies, and periodic monitoring and mutual learning.

Representative cases of projects aimed at establishment of appropriate educational, social and cultural infrastructure is presented at the following Table 1.

In 2010 amendments of the Local Taxes and Free Acts were matters of discussion with the National Association of Municipalities, as well as the process of further decentralization and giving freedom to municipalities decision-making process more responsibility at local level. The state continues to maintain and guarantee the performance of social functions and participates through provision of the financial resources. Decentralization comprises of financial decentralization and decentralization in the way that specific services are offered and managed (Figure 1). The process of decentralization is carried out in two stages. The first one is represented by the delegation of more administrative functions and power to local authorities. The second stage allows for contracting out functions and obligations from local authorities to private providers of social services. The reason for such reform stems from the necessity for more efficient social services and more strict control over their performance. There is no public information available for the quality of the social services delivered directly from municipalities, as well regarding the level of control and financial mechanisms. The monitoring and control functions are not recognized by municipalities as their responsibility and duty as they only remain the provider of the social services.

 Table 1: Contracts in the framework of the Operational Program 'Regional Development'

| Beneficiary                            | Project   | Target group  |  |
|--|---|---|--|
| Municipality Jambol                    | Repair, equipment and renovation of<br>Complex centre for social services,<br>working in the field of sustainable urban<br>development and social inclusion                                     | 590 people from the Centre for Elderly people and from social patronage                                     |  |
| Municipality Varna                     | Repair of Social Professional Education<br>Center   | 420 people with disabilities  |  |
| Municipality Lovech                    | Reconstruction and modernization of the necessary equipment for social patronage  | 230 people - predominantly elder people or people with disabilities   |  |
| M u n i c i p a l i t y<br>Pazardzhik  | Establishment of appropriate social infrastructure - daily center for elderly people with disabilities; protected settlement for people with disabilities, center for temporarily accommodation | The total capacity of the three centers is 56   |  |
| Municipality Vidin                     | Improvement of the accessibility and social conditions for people in disadvantage position  | 20 people from the Center for elderly people  |  |
| Municipality Gabrovo                   | Improvement of the social infrastructure and the quality of social services   | 36 people   |  |
| M u n i c i p a l i t y<br>Blagoevgrad | Repair and reconstruction of existing social centers  | Daily center for elderly people with disabilities (16 people); two centers for elderly people (137 people); |  |

Source: National report of the Ministry of labour and social policy, 2011.

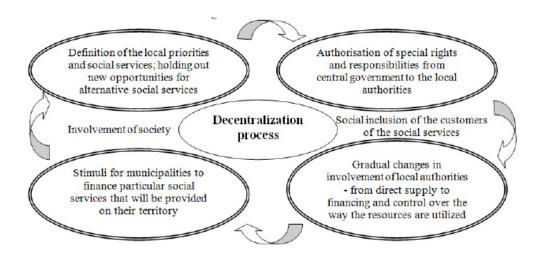
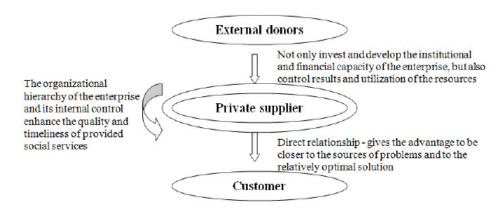


Figure 1. The decentralization reform in Bulgaria

The main challenges in the process decentralization ensue of from confusion of the roles of the participants in this process. The announcement of a competition for assignment of particular social service to private supplier or to municipality structures is responsibility of the municipality itself officially represented by the mare. That way municipality becomes a supplier and assignor simultaneously. The real decentralization presupposes that the local authorities have the right to assess the social needs and to define the appropriate conditions for their fulfilment, but at the same time to control the process and to seek for responsibility from assigned providers of social services.

Another observation is the

inequality between providers in terms of their access to public funds and the control over their activity, especially of the "delegated state activities". Their financing is via transfer from the state budget to the budgets of the municipalities and is based on certain standards. The most important change in the recent years is the introduction of unified standards for maintenance expenditure for a client in the social services delegated by the state, which aims to encourage the municipalities to negotiate the provision of social services with external providers. Unfortunately in the most cases municipalities experience difficulties acknowledging the non-profit organizations as potential partner in provision of social services.



**Figure 2.** Sources for the advantages of the private suppliers

To solve this problem it is necessary for all the partners to share the same concept and statements in respect to the opportunities and the framework of the decentralization process, as well as participation of private suppliers in the process. The practice so far confirms the potential and capacity of the private providers of social services to fulfil the needs, which public providers fail to satisfy (Figure 2). Their advantages in the process of public service delivery refer to: participation in different programs and funds; access to specialized information; opportunities for partnerships and interrelation with similar enterprises; and special tax regime.

## The nonprofit legal framework and social programs in Bulgaria

The law in force in Bulgaria generalizes that the social activity is 'a business activity, which is performed by legal person with non-profit goal, which has explicit social effect on vulnerable groups in society with a goal: increasing their social standard, employment and provision of services or other forms of direct support that will result in their efficient social inclusion'2. Following this definition the most widespread legal forms for providing social services in Bulgaria is the legal person with non-for profit goals. According to the Law on Non-profit Legal Entities, in Article 2 (1) is stated that: 'The non-profit legal entities shall freely determine their objectives and may determine their status as organizations pursuing activities for public or private benefit'. Furthermore in Article 3 (1) is exactly defined that: 'The non-profit legal entities may pursue additional business activities only provided they are related to the subject of the basic scope of activities specified in their registration, and provided the revenues are used for the purpose of attaining the objectives set forth in the statute or the articles of association'. There are two types of acknowledged nonprofit legal entities - associations and foundations. These two organizational types, registered under the Law on non-profit legal entities, are eligible to conduct activity in various social spheres. Their competence and activity are different and encompass almost all aspect of the public life, although a priority is given to the problems and needs related to the social and health aid and assistance; educational sphere

and research activity, development of communities. Certainly the range of their activity is defined by the sources of their financing.

Since the social policy conducted and its support mechanisms are responsibility of the state and the local representatives of the state power, there is a significant importance of the collaboration between them the non-profit organizations. This collaboration with the public authorities mainly takes form of the contract arrangement between municipalities and non-for profit legal entities. The specific features of these contracts are conceded by the Law for Local Management and Local Administration, where sphere and the subject of the contract, the goal and forms of collaboration, the rights and the responsibilities of the involved parties, as well as their share of participation are specified. In Chapter 8, Article 59 is defined that municipalities may collaborate among each other or with physical and legal entities in order to achieve the goal that is a matter of common interest; or the municipalities may assign carrying out an activity to a particular physical or legal entity.

Another form of collaboration is participation of the municipality in establishment of non-for profit legal entity, which is supposed to carry out a specific activity for public benefit. This form of collaboration is the so called 'municipality foundations', which are bounded with the common framework of the Law on non-profit legal entities.

An important aspect is the possibility for non-profit entities to participate in consulting the executive authorities in the process of preparing

and decision-making, as well as in development of new policies in different society spheres. There are two mechanisms through which is released this possibility: institutional and deinstitutional. The choice between these two mechanisms depends on whether the law envisages consulting of the executive authorities by nonprofit legal entities to be in the form of participation of the representatives of the non-profit legal entities in the advisory structures (Society councils, common commissions etc.) independently from these structures.

Considering the de-institu-tional mechanism, the initiative for consulting and advisory activity is bilateral and may be taken from the citizens and their organizations, as well as from the executive authority itself. Regardless of whether the initiative was taken up from the executive authority or not, the litter is obliged to discuss the opinion or the statement of the non-profit legal entity. The de-institutional mechanism regulates participation of the non-profit legal entity in development of the policy decisions through: offering an opinion or a statement of the interested non-profit legal entity in respect to draft decision or program; initiating of community debate or discussion; and participation in the sessions of the competent authority, but only after they have been officially invited.

The institutional mechanism subdivides the form of interaction between the non-profit legal entity and the executive authority into permanent authority with specific rights and temporary structures. The main disadvantage of this mechanism is the absence of definition in terms of rules, procedures and policies for

communication and advisory initiatives with representatives of the third sector, as well as the absence of explicit legal organization of the mechanism of this form of society control.

Non-profit legal entities are also provided with the opportunity to apply for the resources allocated by the operational programs. They may be beneficiaries of the program funds, and they can take part as partners of other organizations. In Bulgaria seven Operational programmes, which are co-financed by the European Regional Development Fund, the European Social Fund, and the Cohesion Fund, operate currently. Non-profit organizations have the opportunity and are eligible to apply individually or in partnerships with companies, municipalities or government institutions. An important opportunity is comprised in the Operational program 'Administration capacity' and subpriority 2.3.: 'Strengthening capacity of the civil society structures', (for improvement of corporate management and development of social responsibility). The goal of this subpriority is to improve the knowledge and the capacity of the structures of the civil society to initiate and actively to participate in the local and national policy-making process, as well as for achievement of effective partnership and dialogue with the administration and its structures.

Another operational pro-gram is the 'Human resources development' program and its sub-priority 51 'Support of social economy', which provides for support for the existing specialized enterprises and cooperatives for disabled people; for new working places in the sector of

social economy and initiating volunteer and civil initiatives; for establishment of social enterprises by giving start capital for employment of people from vulnerable groups; advisory services for development of social enterprises; educational and training programs for improvement of the management and business skills; and for introduction of the good practices in the social enterprises, cooperatives specialized enterprises and disabled people. In the sub-priority 52: 'Social services for preventing social exclusion and overcoming its consequences' of the same operational program is envisaged support for development of new social services, establishment of sustainable models for collaboration and reciprocal action among all the interested parties in the process of social inclusion at the local and regional level. The admissible beneficiaries under these priorities are municipalities and providers of social services, advisory companies, employers etc. That way the nonprofit legal entities may participate in performance of the operative programs in the forms of beneficiary, partners or executors. In principle for them is regularized the opportunity to perform monitoring of projects through their deliberative vote in the observation committee. The appointed specialized authority that controls the activity of the organizations for community benefit is the Minister of Justice.

## Methodology and discussion on results

Indisputably Farrell's (1957) article on efficiency measurement led to the

development of several approaches to efficiency analysis. The literature on efficiency measurement can be broadly categorized in two main streams: frontier (parametric and non-parametric approaches) and nonfrontier approaches which provide for a wide spectrum of opportunities to measure and quantify the influence of exogenous factors over technical efficiency. The frontier approach, represented by Stochastic and Bayesian approaches, requires structuring a functional form (production, cost, profit functions or regression equations). The earliest models in parametric frontier estimation (Ordinary least squares) refer to the estimation of deterministic frontiers or specify a one-sided error term in order to represent the inefficiency component. The second class of frontier models, called stochastic frontier models. adds an additional error term which accounts for the measurement model and is assumed to be symmetric. There are two sub-levels of the stochastic frontier models - cross sectional models and panel data models. The first model is estimated by maximum likelihood estimation and is more appropriate for application when there is only one observation per decisionmaking unit. The second sub-model is the panel data model that consists of decision-making units observed at different periods. Such data contains more information about the parameters chosen to characterize the efficiency of decision-making units.

Implementation of stochastic frontier analysis follows the concept of structuring a production function. It includes not only conventional production inputs, but also the factors

that belong to and characterize the environment of evaluated decision-making units. This approach calculates the relationship among variables included in the production function and the inefficiency model, as well as to estimate the technical efficiency coefficients for each unit.

The present analysis includes as decision-making units eleven of the operational programs in the budget of the Ministry of Labor and Social Policy for the period 2007-2013. These programs refer to – promoting employment, maintaining appropriate work standards, preventing overcoming conflicts at the work place, social transfers applying differentiated approach, targeted heating benefits, social inclusion of groups at risk, deinstitutionalization of the services for children and implementation of a model of family type homes as an alternative of the specialized institutions, support for families with children, demographic development,

integration of people with disabilities, protection against discrimination and ensuring of equal opportunities, and instruments for social responsibility.

The developed two-sectored model distinguishes between the model of the general production function and the inefficiency model. The variables included in the first production function are related directly to the final product and are utilized during the process of the operational program application and its phases. The inefficiency model is developed to define of the included institutional factors, which ones exert positive and negative effect over technical efficiency coefficients of the programs. Production functions are structured under the assumption for non-linear relation among their value and the value of technical efficiency.

The parameters of constructed production function and its translogaritmic form are represented at Table 2:

**Table 2:** Variables in the production function

| Output (Y)   | Input (X)                                   |  |
|--|---|--|
| North or effect by the first of the second by the second   | $\mathbf{B}_{1}$ – Maintenance costs        |  |
| Number of the beneficiaries covered by the social programs | <b>B</b> <sub>2</sub> - Staff               |  |
| programs   | <b>B</b> <sub>3</sub> – Capital investments |  |
| Number of new or amended legal documents                   | $\mathbf{B}_{3}$ – Administrative costs     |  |

The output variables are represented by the number of the beneficiaries covered by the eleven programs and by the number of the new or amended legal documents related to the implementation and efficacy of the government intervention mechanisms. As input variables are used maintenance costs, staff, capital investments and administrative costs.

Variables in the inefficiency model are grouped in two categories that attempt to explain the level of inefficiency: general information about the government policy and the legal system, and evaluation of the transfers and extra payments (Table 3).

**Table 3:** Variables in the inefficiency model

| Group 1: | $C_1$ – Integrity of the legal systemt  |
|----------|---|
| Croup 2  | C <sub>2</sub> –Transfers and subsidies |
| Group 2: | $C_3$ – Additional payments and bribes  |

The variable chosen to indicate how well the protective function of government is performed is the integrity of the legal system. Transfers and subsidies are included as a share of GDP and are used also as indicators of the size of government. The reason for this choice is that when government taxes particular group of people in order to provide transfers to others, this way the freedom of individuals to keep what they earn is reduced. Considering the potential disincentive effect that taxes could generate and the concentration of income taxes on dependent employees and workers, taxes have lost part of their potential impact on income distribution. At the same time income transfers earmarked for poor are largely replaced by such entitlement programs, especially in health and social services, which benefit all citizens, besides the ones who live below the minimum social standard. The administrative efficiency is characterized by the additional payments and bribes. Sometimes the delays along the

administrative chain are the result of administrative inefficiency or overestimated competence of the staff involved, while in other instances they are reflection of the corruption and non-regulated actions.

The first two hypothesis tested by Cobb-Douglas and translog production functions state that value of b, parameters is zero. This implies that the level of technical inefficiency of each decision-making unit is not determined by the technical inefficiency level of the parameters included. According to performed loglikelihood tests these hypotheses are strongly rejected at the 5 per cent level (Table 4). The average variation in the estimated output from the frontier level of the output, denoted by γ is estimated at 0,993. The third hypothesis states that values of  $\delta$ . parameters in the inefficiency model are zero. According to the estimated variances, output variability is mainly due to technical inefficiency rather than to a statistical noise.

**Table 4:** *LR-test results* 

| Test | Null Hypothesis              | Loglikelihood<br>function | Value λ* | Critical<br>Value** | Decision              |
|------|------------------------------|---------------------------|----------|---------------------|-----------------------|
| 1    | $H_0: \beta_i = 0$           | -105,668                  | 59,539   | 11,911              | Reject H <sub>0</sub> |
| 2    | $H_0: \beta_{ii} = 0$        | 222,864                   | 140,227  | 26,983              | Reject H <sub>0</sub> |
| 3    | $H_0: \gamma = \delta_i = 0$ | 25,230                    | 132,444  | 8,761               | Reject H <sub>0</sub> |

 $<sup>*\</sup>lambda$  – is the value of the likelihood ratio test of the null hypothesis associated with each of the three models against the alternative general model. This test has 16 degree of freedom.

<sup>\*\*.005</sup> significance level

Results from the stochastic frontier analysis are presented on the following Table 5. One of the main advantages of the parametric method is that it allows modeling input utilization differences. These differences not necessarily directly relate to the technical inefficiency as they result from the way the organization (management, responsibilities, staff) of the program implementation manage to benefit or to deal with favorable or less favorable factors of the environment. In this relation inputs' utilization is a reliable source for elaboration the appropriate benchmark in the data set.

**Table 5:** Estimates for the variables in the Cobb-Douglas production function\*\*

|   | Coefficient | Standard error | T-ratio |
|---|-------------|----------------|---------|
| $\beta_{0  { m CONSTANT}}$              | 0.117       | 0.140          | 0.834   |
| $\beta_{_{1MAINTAZINENCECOSTS}}$        | 0.217       | 0.640          | 0.340   |
| $eta_{	ext{2 STAFF}}$                   | -0.174*     | 0.480          | -0.363  |
| $\beta_{3 \text{ CAPITAL INVETSMENTS}}$ | 0.741       | 0.102          | 0.726   |
| $\beta_{4ADMINISTRATIVECOSTS}$          | 0.837       | 0.751          | 0.111   |
| $\sigma^2$                              | 0.624       | 0.275          | 0.226   |
| γ                                       | 0.987       | 0.631          | 0.156   |

<sup>\*</sup>Means significantly different from zero at least at 95%.

It is also important to specify that scale efficiency is defined at the level of the output where the average input costs are minimized. Therefore it is challenging to consider whether the programs of a given scope and target groups have the opportunity to minimize or optimize input costs. It is not very surprising that staff variable is significant in affecting programs' efficiency. The estimates around 0,1 suggest that 1 per cent of staff higher redistributive spending raises the efficiency coefficient by 0,1 per cent. The results show that capital investments need to be improved in order to increase the quality of the local governance performance.

The results from translog production function indicate that the variables - maintenance costs and

administrative costs have statistically significant impact over the efficiency estimates for the entire period 2007-2013 (Table 6). It is expected that one per cent increase of these two cost categories would increase efficiency of program implementation with 0.94 and 0,92 per cent respectively. There is also a positive correlation between maintenance and administrative costs (β11). According to the calculated results of the inefficiency model, this parameter appears as statistically significant with positive effect over technical efficiency estimates (-0,634). One issue that could be drawn as a general perspective of programs' efficiency refers to the optimal levels of these costs considering the target groups covered.

<sup>\*\*</sup> The represented values are generalized for the entire period 2007-2013 Source: Own calculations.

**Table 6:** Estimates for the variables in the translog production function

| Coefficients   | Coefficient | Standard error | T-ratio |
|--|-------------|----------------|---------|
| $\beta_{0 \text{ CONSTANT}}$                                 | 0.255       | 0.238          | 0.107   |
| $\beta_{1 \text{ MAINTAINENCE COSTS}}$                       | -0.937*     | 0.612          | -0.152  |
| $eta_{2~	ext{STAFF}}$  | 0.999       | 0.147          | 0.677   |
| $\beta_{3 \text{ CAPITAL INVETSMENTS}}$                      | 0.212       | 0.177          | 0.119   |
| $\beta_{4 ADMINISTRATIVE COSTS}$                             | -0.916*     | 0.288          | -0.317  |
| $\beta_{5}^{1/2}$ maintainence costs <sup>2</sup>            | 0.882       | 0.173          | 0.507   |
| $\beta_6 \frac{1}{2}_{\text{STAFF}}^2$                       | 0.278       | 0.438          | 0.634   |
| $\beta_7^{1/2}$ Capital invetsments                          | 0.558       | 0.127          | 0.438   |
| $\beta_{8}^{1/2}$ administrative costs $^{2}$                | -0.485*     | 0.281          | -0.172  |
| $\beta_{9 	ext{MAINTAINENCE COSTS*TAFF}}$                    | 0.133       | 0.119          | 0.111   |
| $\beta_{10\mathrm{MAINTAINENCECOSTS^*CAPITALINVETSMENTS}}$   | 0.301       | 0.979          | 0.308   |
| $\beta_{\text{11 MAINTAINENCE COSTS* ADMINISTRATIVE COSTS}}$ | -0.634*     | 0.688          | -0.921  |
| $\beta_{12\mathrm{STAFF^*CAPITALINVETSMENTS}}$               | 0.192       | 0.347          | 0.555   |
| $\beta_{13  \text{STAFF*}  \text{ADMINISTRATIVE COSTS}}$     | 0.398       | 0.588          | 0.676   |
| $\beta_{14\text{Capital invetsments* administrative costs}}$ | 0.169       | 0.407          | 0.416   |
| $\overline{\sigma^2}$  | 0.129       | 0.543          | 0.237   |
| γ  | 0.999       | 0.212          | 0.470   |

Source: Own calculations.

As to the exogenous factors, it is probably reasonable that social programs efficiency depends on the enforcement and monitoring capacity of public and private agents, the ability of private agents to protect their incomes and resources; and the mechanisms established in the public sector. The coefficients in the inefficiency model acknowledge that institutions

and institutional arrangements have direct and positive influence over the efficiency of the observed units. The calculations signify that the integrity of the legal system exerts positive effect over programs' implementation and suggests that this institutional variable also stands for security and balances of property rights established (Table 7).

**Table 7:** *Inefficiency coefficients – results* \*\*\*

|            | Variables                       | Estimates       |
|------------|---------------------------------|-----------------|
| $\delta_0$ | Constant                        | 0.687 (0.217)   |
| $\delta_1$ | Integration of the legal system | -0.455* (0.158) |
| $\delta_2$ | Social transfers and subsidies  | 0.680 (0.361)   |
| $\delta_3$ | Additional payments and bribes  | 0.688 (0.393)   |

<sup>\*</sup>Means significantly different from zero at least at 95%

Source: Own calculations

<sup>\*\*</sup>Standard errors are given in brackets

<sup>\*\*\*</sup> The represented values are generalized for the entire period 2007-2013

Finally on Table 8 are presented the overall efficiency results estimated. Efficiency coefficients derived from

the structured functional models do not vary considerably for the observed period.

**Table 8:** SFA estimated efficiency coefficients

|   | Efficiency coefficients      |                   |                       |
|---|------------------------------|-------------------|-----------------------|
|   | Cobb-<br>Douglas<br>function | Translog function | Inefficiency<br>model |
| Program 'Promoting employment'                                  | 0.391                        | 0.364             | 0.514                 |
| Program 'Maintaining appropriate work standards'                | 0.974                        | 0.528             | 0.785                 |
| Program 'Preventing and overcoming conflicts at the work place' | 0.858                        | 0.840             | 0.842                 |
| Program 'Social transfers applying differentiated approach'     | 0.829                        | 0.546             | 0.833                 |
| Program 'Targeted heating benefits'                             | 0.344                        | 0.341             | 0.211                 |
| Program 'Deinstitutionalization of the services for children'   | 0.500                        | 0.632             | 0.486                 |
| Program 'Support for families with children'                    | 0.684                        | 0.522             | 0.367                 |
| Program 'Demographic development'                               | 0.682                        | 0.694             | 0.334                 |
| Program 'Integration of people with disabilities'               | 0.638                        | 0.644             | 0.837                 |
| Program 'Equal opportunities'                                   | 0.469                        | 0.564             | 0.418                 |
| Program 'Instruments for social responsibility'                 | 0.556                        | 0.378             | 0.344                 |

Source: Own calculations

The results give a broad picture of the relative efficiency of the social programs, and point as the least efficient the programs 'Targeted heating benefits' and 'Promoting employment'. This implies that the concept for active inclusion at its three elements – adequate income, sustainability of employment and access to quality services, needs further elaboration at the level of implementation. The government has set particular measures aimed at strengthening: attractiveness of employment for

people in working age, dependent on the system for social assistance motivation through measures, professional pre-orientation, training for key competences; sustainability of employment of the vulnerable groups on the labour market; and provision of public services for reconciliation of professional and personal life and removing the barriers for participation on the labour market. The highest efficiency scores are achieved by the programs 'Preventing and overcoming conflicts at work place' and 'Social

transfers' - their average efficiency value is 0,847 and 0,736. The results are consistent with the general statistics regarding the effect of the social transfers, including pensions, compensations, family benefits, and social assistance benefit. In the recent years these social expenditures have contributed for the decrease of the percentage of poor persons by nearly 23,5 percentage points. The transfers have significant importance for decreasing risk of poverty among children up to 15 years and elderly people at 65 years and above. The rest of the social transfers accounts for only 3 points.

#### **Concluding remarks**

The aim of the paper is twofold: to describe the organization of the third sector in Bulgaria and the significance of the quality and the impact of the social programs in supporting people in unequal position; promoting

entrepreneurial solutions to social, cultural, health or environmental challenges; and in facilitating the provision of public services; and to assess the efficiency for eleven social programs from the budget of the Ministry of Labour and Social Policy. The study first discusses conceptually the determinants of social programs efficiency: initial conditions, public policies and actors involved. Consequently the analysis exploits parametric frontier technique to study efficiency performance and its main determinants; and to evaluate the influence of certain institutional factors and their contribution to the efficiency of the operational programs. The main conclusions corroborate the necessity for further development of the mechanisms for strengthening the local capacity to implement and coordinate social policy; and establishment of strong public control and evaluation of the quality of the services provided.

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