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DOES SPENDING ON SOCIAL-WELFARE POLICIES REDUCE POVERTY? AN ASSESSMENT OF THE EUROPEAN UNION COUNTRIES USING IMPULSE-RESPONSE AND EFFICIENCY METHODS¹

Summary

Purpose – An attempt to answer two questions: (i) does spending on social-welfare policies constitute a statistically-significant impulse for reducing poverty among various risk groups in the EU countries? And (ii) what is the level of efficiency of social spending when it comes to reducing various problems associated with poverty in the EU member states?

Research method – Two research methods: Vector Error Correction Model (VECM) and extended Data Envelopment Analysis (DEA) are used.

Results – It is established that social-welfare policies in most of the EU countries create a sufficient impulse to reduce poverty among elderly people and survivors, families with children and the unemployed. However, the impulse is often not sufficient in the case of people with problems in meeting housing needs, as well as the sick or disabled. What is more, the relative efficiency of social-welfare spending in some of the EU countries is low, which suggest that better outcomes may be achieved not only by increasing the spending, but also by improving the policies among current amount of funds. Surprisingly, the best-performing countries in reducing the poverty by social-welfare policies include, next to Denmark and Finland, also some Central and Eastern European countries: the Czech Republic, Poland, Slovakia and Slovenia.

Originality/value/implications/recommendations – The research extends the knowledge on the efficiency and effectiveness of government activities for the purpose of limiting poverty.

Keywords: poverty, social-welfare policies, government expenditure, efficiency, VECM, DEA

JEL codes: H53, H55, I32, I38

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1. Introduction

Although global poverty rates have fallen by more than 50% since 2000 [ONZ, 2019], poverty and growing income inequality are still seen as significant problems of the modern world [Cyrek, 2019]. The best proof of this can be found in the wording of the first – not coincidentally – Sustainable Development Goal (SDG): “end poverty”. It can, therefore, be said that, on the international arena, the eradication of poverty appears to be the modern world’s most important challenge. Yet while absolute poverty is not common in highly developed countries, such as the EU countries, its relative form, as well as all other manifestations of excessive income inequality, is the source of many social tensions [Cyrek, 2019]. Mitigating them is the task of social policy in which – regardless of the concept adopted or model implemented by the EU countries – egalitarianism plays a fundamental role [Szumlicz, 2008; Supińska, 2014; Szarfenberg, 2015a, 2015b].

At its inception the European Community was primarily an economic and political project rather than a social one [Golinowska, 2018]. Over time, however, the social component has clearly become one of the principles shaping the Community. However, there is an important asymmetry in this respect – economic issues still dominate over social ones [Scharpf, 2002].

Currently, at least several social groups are competing in a way to improve their situation, which threatens to push up the poverty rate: people with illnesses and disabilities, pensioners, families with children, the unemployed and people at risk of homelessness. On the one hand, as society’s knowledge increases, so do these five groups’ expectations when it comes to a new type of policy aimed at increasing prosperity and happiness [Helliwell, Layard and Jeffrey, 2012]. On the other hand, governments’ constant budget constraints and application of the right policies is a key problem due to the pressure of globalisation and aging populations on countries’ budgets, in terms of both spending and revenue [Deroose and Kastrop, 2008]. On top of this, there is one more issue that emphasises that, ultimately, national governments are responsible for the efficient allocation of the sustainable development budget [Cristóbal et al., 2021]. Some of the research is more straightforward: to achieve the SDGs, it is necessary to increase public spending on this purpose [Kharas and McArthur, 2019; Murray, 2020; Vorisek and Shu, 2020]. The economic and social consequences of the phenomena outlined above have made them the subject of growing interest in the field of socio-economic policy. There is a widespread agreement that internal policy remains primarily responsible for combating poverty and inequality via social spending, though its ability to counter socio-economic problems appears to vary between countries [Cyrek, 2019]. Logically, it would seem that the impact of social spending on reducing poverty and inequality is directly dependent on the scale of public spending [Garcés Ferrer et al., 2014; Bausch, 2019]. Yet that same logic suggests that excessive spending may create certain threats to the stability of public finances, as well as side effects that affect the situation of the poor. This creates the need for optimisation in public policy. One of the factors worth analysing is the extent to which spending on social-welfare policies

is an impulse reducing poverty in the groups mentioned above. If this dependency turns out to be significant, we can attempt to assess countries' policies in terms of efficiency – how spending specific amounts affects the scale of poverty. In this way, we can create a ranking of countries, ranging from the most efficient to the least efficient. This is relevant because higher efficiency in public spending when it comes to achieving social benefits enables goals of social cohesion to be achieved, while avoiding an excessive increase in spending and its consequences, in the form of a budget deficit and public debt [Cyrek, 2019].

This study has two main aims. Firstly, it aims to establish to what extent spending on social-welfare policies constitutes a statistically-significant impulse reducing poverty among various groups at risk of it. Secondly, it aims to define the efficiency of social spending when it comes to reducing various problems associated with poverty. In more detail, the authors try to answer whether: (i) social-welfare policies targeting five social groups (the elderly and survivors, family and children, the unemployed, people with problems in meeting housing needs, sick and/or disabled people) most at risk of material deprivation reduce the risk of poverty and, if so, to what extent? And (ii) which of the EU-27 countries uses government social spending the most efficiently, when it comes to reducing poverty among the five social groups most at risk of it? The research problem in this study, therefore, includes identifying the most socially-beneficial model of state intervention.

The study is organised as follows. The second section contains a brief literature review on the impact of government social spending on reducing inequality and poverty. The third section presents the study's methodology. The main findings are presented and discussed in section four. They encompass: (i) identifying to what extent spending on social-welfare policies is a significant factor reducing poverty; (ii) grouping countries based on a clear comparative criterion; (iii) estimating the efficiency of public spending in the EU countries when it comes to reducing poverty. Finally, the authors sum up our research and answer the questions posed in the introduction in the conclusion section.

2. Literature review

Economists rather agree that economic growth has a positive impact on reducing poverty. Current research, therefore, focuses mainly on estimating the size of this effect; that is, on estimating the elasticity of poverty in relation to growth [Garza-Rodriguez, 2018]. The literature concerning the estimation of this elasticity is quite extensive [Ravallion and Chen, 1997; Bourguignon, 2003; Ferreira and Ravallion, 2009; Ravallion, 2012; Alvaredo and Gasparini, 2015; Fosu, 2017]. Similarly, so are cross-country studies by country group focused on assessing the impact of economic growth on poverty reduction [Stevens and Sessions, 2008; Odhiambo, 2009; Clemente, Marcuello and Montañes, 2012; Joumard, Pisu and Bloch, 2012; Mulok et al., 2012; Rehman and Shahbaz, 2014; Nindi and Odhiambo, 2015; Abosedra, Shahbaz and Nawaz, 2016; Nyasha, Gwenthure and Odhiambo, 2017].

In the literature on the subject, there is a wide discussion about the various models and instruments of the welfare state because there are many institutional solutions that determine social-welfare policies in different countries around the world. In the most general terms, several welfare models are distinguished based on a set of common policy indicators for individual countries [Clemente, Marcuello and Montañes, 2012; Joumard, Pisu and Bloch, 2012; Cyrek, 2019]. Considering the instruments for state intervention, Di Gioacchino, Sabani and Tedeschi [2014] claim that public social spending and market regulations are two separate means of social protection and report certain evidence of a negative relationship between them, demonstrating societies' different institutional choices. Ferrer et al. [2014] point to social spending and tax policy as two important aspects of social-welfare policies that reflect a country's overall development strategy. Nevertheless, the main goals of public intervention in every country encompass reducing poverty and inequality.

There is a widespread agreement that social spending determines the level of both inequality and poverty [Cyrek, 2019]. Fiszbein, Kanbur and Yemtsov [2014] argue that there is a close link between reducing inequality and poverty through social-welfare policies. Nevertheless, it is possible that social spending contributes to inequality and poverty remains the same when income is distributed from the rich to the middle class, and that social spending reduces poverty, but not inequality, when it contributes to equal income growth. As Fiszbein et al. [2014] show, the outcomes of social programmes when it comes to poverty depend both on the total resources available (budgetary adequacy) and on their targeting (efficiency), which often replace each other. Similarly, Anderson et al. [2017] argue that the impact of government spending on inequality and poverty is determined by: the type of spending (the sector of spending), how well they are targeted, and how they are funded. Generally speaking, the impact of welfare policy depends on the size, combination and progressiveness of taxes and transfers [Joumard, Pisu and Bloch, 2012; Cyrek, 2019].

There are many empirical studies on the impact of public spending on inequality and poverty in the literature. Anderson et al. [2017] show that there is a negative relationship between higher government spending (especially social spending) and income inequality. This view is supported by the research by Cosmin [2012] in European countries, which showed that public spending reduced income inequality and governments were thereby carrying out effective redistributive policy. Considering the impact on poverty, Anderson et al. [2018] claim that the redistributive role of fiscal policy is significantly lower in developing countries than in OECD countries. The World Bank suggests that the impact of social spending is limited by its effectiveness in targeting the poor [World Bank, 2003]. In this spirit, Buracom [2011] analyses the distributive effects of public spending in Thailand and concludes that all of them are not well targeted at poor people. Haile and Niño-Zarazúa [2018] find strong evidence to support the claim that social spending fundamentally has an impact when it comes to improving aggregate welfare in developing countries.

Moreover, the level of government social spending, as well as its impact on inequality and poverty, changes over time, especially in the case of a deep slowdown or crisis [Cyrek, 2019]. Clemente et al. [2012] claim that government social spending

is highly sensitive to the ups and downs of economic growth and that, in times of crisis, sharp cuts are almost immediate, but that the nature of spending shifts from luxury goods in lower-income countries to necessary goods in affluent societies. Savage [2019] concludes that the crisis of 2007 led to the re-emergence of a partisan way of conducting policy in terms of social spending. Most OECD countries adopt an expansive policy and increased social spending. This view is supported by observations by Ferrera et al. [2014], who found that, during an economic crisis, public spending is higher than when the business climate is good in order to cover the population's need and secure its welfare. A relevant matter is how a crisis affects poverty and inequality through the channel of public social spending. Kiendrebeogo, Assimaidou and Tall [2017] indicate that a crisis can have an impact on poverty through the (average) income effect, the distribution effect and the distortion effect. Their research shows that, in developing countries, financial crises go hand in hand with rising poverty, but that the effect is smaller in countries with higher levels of social spending. This shows the role of welfare state solutions in reducing poverty during a crisis and confirms the benefits of state intervention.

Although there are many studies on changes in public spending during a crisis and the impact of public spending on poverty and inequality, the results are still inconclusive [Cyrek, 2019]. In particular, empirical research into the efficiency of government social spending when it comes to reducing inequality and poverty, as well as how they change during a crisis, is limited. As a result, there is no general consensus on the preferred solutions for the welfare model.

3. Research method

3.1. Effectiveness and efficiency of social spending

Szarfenberg [2009] distinguishes three types of the influence of social policy on the social indicators: 1) consistent with the goal (under the influence of social policy, the social problems decrease), 2) contradictory to the goal (under the influence of social policy, the social problems increase), 3) neutral to the goal (social policy has no influence on the social problems). Social policy in the first case is effective, in the second case counter-effective, and in the third case ineffective. Effectiveness can be graded, e.g., social policy X reduces the poverty rate by 5 percentage points and social policy Y reduces it by 10 percentage points, which means that social policy Y is twice as effective as social policy X.

Since resources for achieving the goals of social policy (and every public policy) are limited, we should strive to use them cautiously to achieve the best possible results. Thus, it is not only about the effectiveness of social policy, but also about its efficiency or cost-effectiveness. If two countries achieve the same results in reducing social problems, but the first one does it with less money, both are equally effective, but the first one is more efficient. If, while maintaining the current level of effectiveness in reducing problems, we reduce expenditures, then we improve efficiency without worsening effectiveness (cost-effectiveness analysis as opposed to standard cost-benefit analysis).

3.2. Reacting to the impulse (VECM)

Analysing the connections between the formation of variables can indicate that they influence each other and that the relationship is two-way. This requires the application of the VAR (Vector Auto Regressive) methodology developed by Sims [1980] as an alternative to the classical multi-equation model with interdependent equations. The basic form of the VAR model [Charemza and Deadman, 1997; Kusi-del, 1999; Maddala, 2008] is as follows:

$$\chi_t = A_0 D_t + A_1 \chi_{t-1} + A_2 \chi_{t-2} + \dots + A_k \chi_{t-k} + e_t \quad (1)$$

or, in more compact form:

$$\chi_t = A_0 D_t + \sum_{i=1}^k A_i \chi_{t-i} + \chi e_t \quad t = 1, 2, \dots, T; \quad (2)$$

where:

χ_t – the vector of observations on the current values of all n model variables

$$\chi_t = [\chi_{1t} \ \chi_{2t} \ \dots \ \chi_{nt}]$$

D_t – the deterministic vector of equation components, such as the intercept, time variable, zero-one variables or other non-chastic regressors,

A_0 – the parameter matrix with the variables of vector D_t , which does not contain any zero elements

A_i – parameter matrices with lagging variables of vector χ_t , which does not contain any zero elements,

e_t – stationary random disturbance vectors (contains residual vectors equal to the model).

The vectors of residuals equal to the model should satisfy classical assumptions (zero mean, constant variance, no autocorrelation), while the simultaneous covariances between the residuals of individual equations may be different from zero. The lag order (r) should be selected to reflect natural interactions (for example, for quarterly data, the lag order should not be less than 4), as well as to eliminate autocorrelation. VAR model estimators obtained by the least squares method retain the desired properties only when the time series of observations on variables are stationary. In the case of non-stationary (integrated) series, the VAR model can be applied after calculating the first increments (if the series is integrated in the first step) in order to achieve stationarity or, when the variables are cointegrated, use the VECM (Vector Error Correction Model) model.

The cointegration of variables in the case when the interdependence of the variables is described by many equations, when the variables explained in one equation are explanatory variables in other equations, is studied using the Johansen procedure. According to this procedure, to use the VAR model for cointegration testing, it should be transformed into a VECM (Vector Error Correction Model) model with the form:

$$\Delta x_t = \Psi_0 d_t + \Pi x_{t-1} + \sum_{i=1}^{r-1} \Pi_i \Delta x_{t-i} + \varepsilon_t, \quad (3)$$

where

Ψ_0 – the parameter matrix for vector variables,

$\Pi = \sum_{i=1}^k A_i - I$; $\Pi = \sum_{j=i+1}^k A_j$, ε_t – the model's residuals.

3.3. Efficiency (extended DEA)

3.3.1. DEA

As a non-parametric method, the DEA method does not require knowledge of the functional relationship between inputs and outputs. The efficiency curve is created using empirical data on the size of inputs and effects. For the objects selected for research, weights are sought that maximise their efficiency, using the methods of linear programming [Kucharski, 2014, p. 10].

Efficiency is defined as the ratio between the weighted sum of outputs and the weighted sum of inputs. Efficiency indicators, therefore, have the following form [Nazarko et al., 2008; Baran, Pietrzak and Pietrzak, 2015]:

$$theta = \frac{\sum_{j=1}^J \mu_j y_j}{\sum_{i=1}^I v_i x_i} \quad (4)$$

where:

J – the number of outputs,

I – the number of inputs,

μ_j – the weight of the j-th output,

v_i – the weight of the i-th input,

y_j – the size of the j-th output,

x_i – the size of the i-th input,

theta – the efficiency indicator.

After converting to the linear form, the programming task is solved for each object separately [Afonso and Aubyn, 2005, p. 13]. In this way, the number of efficiency indicators is equal to the number of objects studied. Some objects are considered efficient objects (they are located on the efficiency curve); the rest are inefficient objects. It is worth emphasising that the efficiency determined using the DEA method is relative, i.e. it depends on the defined subject scope. A given object might be deemed effective in a certain group of objects, but become an inefficient object after the subject scope is changed, despite using the same data on inputs and outputs [Guzik, 2009, p. 30]. Among other reasons, researchers have questioned whether DEA is an appropriate tool for performance evaluation and benchmarking in a non-productive context, arguing that critical attention to the choice and compositions of indicators, the comparability of the selected DMUs, and the choice of a particular DEA model is necessary in each case [Wojcik, Dyckhoff, Clermont, 2019].

There is no doubt that caution in the use of DEA is not only advisable but even necessary. Nevertheless, one can successfully find examples in the literature of the legitimate use of DEA to measure the effectiveness of public spending on poverty reduction. For example, Habibov and Fan [2010] used DEA to compare the poverty reduction outcomes of social assistance programs across Canadian provinces. From a theoretical perspective, the article's findings show that DEA is a promising method for assessing, comparing, and benchmarking poverty reduction performance across multiple jurisdictions using multiple inputs and outputs. The article also shows that DEA generates easy-to-understand composite rankings of provincial performance, identifies appropriate benchmarks for each inefficient province, and estimates the sources and amounts of improvements needed to make provinces efficient. In another example, Caminada and Goudswaard [2009] analysed the effectiveness of social transfers in alleviating poverty by focusing on the EU-15 countries and some OECD countries. The authors found that social spending is an important determinant of a country's poverty outcome, especially among the elderly, when pensions are considered as transfers.

3.3.2. Order-m

Although they are often used in practice, non-parametric approaches to performance analysis, namely DEA and FDH, have a bad reputation among econometricians. This is mainly because DEA and FDH represent deterministic approaches that are very sensitive to outliers and measurement errors. However, so-called partial border approaches, namely order-m and order- α , have been developed. They generalise the FDH, allowing super-efficient observations to be placed outside the estimated production possibility frontier. While these methods are also purely nonparametric, the sensitivity to outliers is significantly reduced by partial frontier approaches that only involve a sub-sample of the observations [Tauchmann, 2012].

Order-m generalises the FDH by adding a layer of randomness to the calculation of efficiency scores. Rather than testing the DMU by the best peer in the sample tested, order-m is based on the idea of comparing the DMU against the expected best performance in the m peer sample. From a computational point of view, order-m efficiency follows a four-step procedure [Daraio and Simar, 2007]:

- A sample of m equivalent DMUs with replacement is taken at random from B_i .
- Pseudo-FDH efficiency θ_{mi}^{FDHd} is calculated using this artificial reference sample.
- Steps 1 and 2 are repeated D times.
- Efficiency of order-m is calculated as the average of the pseudo-FDH results:

$$\hat{\theta}_{mi}^{OM} = \frac{1}{D} \sum_{d=1}^D \hat{\theta}_{mi}^{FDHd} \quad (5)$$

The random resampling means that, in every d replication, a DMU may – but need not – be available as its own partner. For this reason, order- m performance results may exceed 1. In this case, the “super-efficient” of a specific DMU is located beyond the estimated production possibility frontier. This is also a key difference compared to the FDH, where the DMU is always available as its own peer, which precludes a value greater than 1 [Tauchmann, 2012].

The value of the two parameters D and m needs to be chosen to calculate order- m efficiency. While extracting D via the bootstrap method is simply a matter of accuracy, and improving it increases the computational time, the choice of m is critical. This is because the lower the m -value, the greater the proportion of high-efficiency DMUs. Thus for $m \rightarrow \infty$, order- m harmonises with FDH. However, there is no reference DMU for order- m that could be used as a unique point of reference for a DMU that remains different from FDH and order- α . However, a pseudo-reference DMU j_i^{pref} can be specified, expressed in the following way [Tauchmann, 2012]:

$$j_i^{pref} = \operatorname{argmin}_{j \in B_i} \left| \max_{k=1, \dots, K} \left(\frac{x_{kj}}{x_{ki}} \right) - \hat{\theta}_{mi}^{OM} \right| \quad (6)$$

3.4. Measures of inputs and outputs

The indicators representing inputs and outputs used in the research are presented in Table 1. We use the Eurostat data for the 2003–2019 period (or shorter – depending on data availability for individual indicators).

TABLE 1

Measures of inputs and outputs

Input	Output
Total general government expenditure on social protection directed at people with illnesses and disabilities (% of GDP)	People with illnesses and disabilities at risk of poverty or social exclusion (% of population aged 16 years or over)
Total general government expenditure on social protection directed at pensioners (% of GDP)	People at risk of poverty or social exclusion aged 65 years or over (% of population aged 65 years or over)
Total general government expenditure on social protection directed at families with children (% of GDP)	Households with dependent children at risk of poverty or social exclusion (% of total number of households)
Total general government expenditure on social protection directed at the unemployed (% of GDP)	The unemployed at risk of poverty or social exclusion (% of population aged 18 years or over)
Total general government expenditure on housing (% of GDP)	Severe housing deprivation rate (% of total population)

Source: prepared by the authors.

4. Research results

4.1. Does spending on social-welfare policies help reduce poverty among social groups particularly at risk?

TABLE 2
Summary of VECM models

Group	Country	Old aged and survivors	Family and children	Unemployed	People with problems in meeting housing needs	Sick and/or disabled people
I	The Czech Republic					
	Greece					
	Latvia					
	Lithuania					
	Malta					
	Poland					
	Slovakia					
II	Austria					
	Denmark					
	Finland					
	Ireland					
	Portugal					
	Slovenia					
	Spain					
III	Cyprus					
	Estonia					
	Germany					
	Luxembourg					
	Romania					
IV	Belgium					
	Croatia					
	France					
	Hungary					
	Italy					
	The Netherlands					
	Sweden					
	Bulgaria					

legend fall in poverty in response to the impulse increase in poverty in response to the impulse response cannot be interpreted

Source: prepared by the authors.

In the first step by using VECM models the authors establish the response – poverty level of the five groups particularly at risk – in each of the EU-27 countries to the impulse: social spending on each of the five categories of material deprivation (expressed in PPS per capita). It enabled to identify four main groups among the EU countries (see table 2; for charts showing the results of VECM models for each country see the appendix):

- The first group consists of seven countries with at least four (out of five categories) statistically significant positive responses to the impulse. These are: the Czech Republic, Greece, Latvia, Lithuania, Malta, Poland and Slovakia.
- The second group, characterised by three positive responses to the impulse, contains seven countries: Austria, Denmark, Finland, Ireland, Portugal, Slovenia and Spain.
- In the third group, only two out of five responses to the impulse were in a desirable direction. The five countries in this group are: Cyprus, Estonia, Germany, Luxembourg and Romania
- The fourth group is made up of eight countries with only one or none statistically significant positive response to the impulse: Belgium, Croatia, France, Hungary Italy, the Netherlands, Sweden and Bulgaria.

Most of the social-welfare policies in the EU countries create a statistically significant impulse to reduce poverty among the elderly and survivors, family and children and the unemployed. However, this is not the case of people with problems in meeting housing needs. Only in nine out of 27 analysed countries the impulse for this group was positive. There is also no clear answer in the case of sick and/or disabled people, as for this group our analysis yielded many responses that cannot be interpreted.

4.2.1. Where is the efficiency of spending on social-welfare policies targeting the groups most at risk of material deprivation the most optimal, in terms of reducing poverty?

Creating a positive impulse for reducing poverty does not necessarily mean that the social spending in a given country is effective. There may be a situation, where creating such an impulse is too expensive, meaning that it could be achieved with less fiscal effort. There also may be a situation, in which a country fails to create a positive impulse for reducing poverty, but this is due to low spending, which means that their efficiency may be moderate.

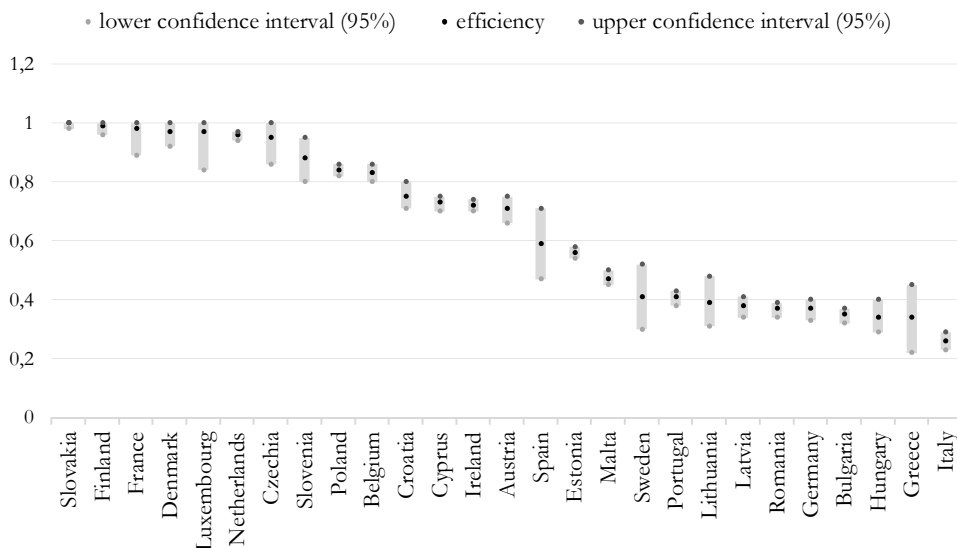
Using the DEA method extended to include order-m, we can create a ranking of countries where spending on social-welfare policies efficiently reduces the risk of poverty in various social groups. The results of the analysis show that Slovakia spends financial resources the most efficiently, in terms of reducing poverty in the five categories (theta equal to 1). Finland came second (0.99) and France third (0.98), with Denmark and Luxembourg right behind them (both 0.97). These are not the countries that spend the most (in terms of PPP per capita) on reducing poverty as part of social-welfare policies. Finland's is the eighth highest, France is sixth and

Denmark is second. Only Luxembourg surpasses them; it comes fifth in the efficiency ranking. Most importantly, though, the top country's expenses (i.e. Slovakia) are the seventh lowest.

What is interesting, it is hard to find any geographical breakdown by social spending efficiency in the EU countries. The Central and Eastern European countries rank both, in the upper half of the ranking (Slovakia, the Czech Republic, Slovenia, Poland) and in the lower half (Lithuania, Latvia, Romania, Bulgaria, Hungary). Similarly some of the traditionally more social countries of Western and Northern Europe – Finland, France, Denmark, Luxembourg and the Netherlands – are in the top, while Germany, Greece and Italy place in the bottom. This situation may exacerbate the fiscal problems in particular in the case of the last two countries.

CHART 1

Efficiency of spending on social-welfare policies in relation to reducing the risk of poverty in the EU-27



Source: prepared by the authors.

5. Conclusions

The title of the article contains a fundamental question: does spending on social-welfare policies reduce poverty? That question is later answered on the sample of the EU countries by using two research methods: VECM and extended DEA. The simple answer is: yes, in most of the EU countries it creates a statistically significant impulse to reduce poverty.

However, our research also points to some doubts:

- a) there are some EU countries in which the social-welfare policies do not give a sufficient impulse to reduce poverty, i.e.: Belgium, Croatia, France, Hungary, Italy, the Netherlands, Sweden, Bulgaria;
- b) around 2/3 of the EU countries face problems with creating a sufficient impulse to reduce poverty among people with problems in meeting housing needs;
- c) the relative efficiency of social-welfare spending in some of the EU countries is low, which suggests that better outcomes may be achieved not only by increasing the spending, but also by improving the policies among current amount of funds.

In the first part of the study the authors concentrated on the effectiveness – the success or failure in achieving the goal by countries. The second studied the efficiency – the relation between inputs and outputs in social-welfare policies. Surprisingly, the countries which were well assessed in both parts of the study were not only the countries commonly recognised as social: Denmark and Finland, but also some of the Central and Eastern European (CEE) countries: Slovakia, the Czech Republic, Poland and Slovenia. These CEE countries are characterised by rather low social spending in comparison to other EU countries, but also rather low inequalities and poverty rates. This suggests that their social-welfare policies may be close to optimal at the current stage of development.

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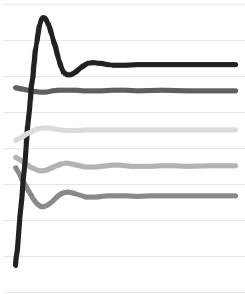
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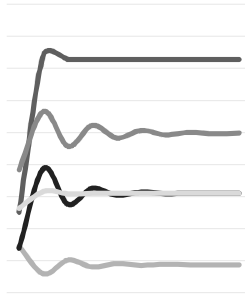
Appendix: Response to the impulse in individual EU-27 countries

— Sickness and disability — Old age and survivors — Family and children
— Unemployment — Housing

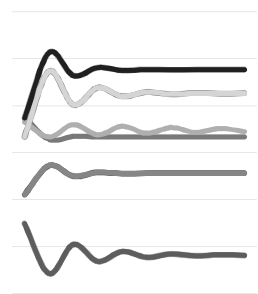
Austria



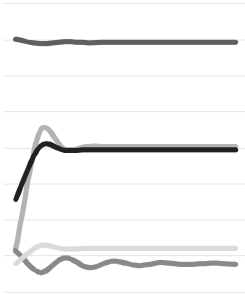
Belgium



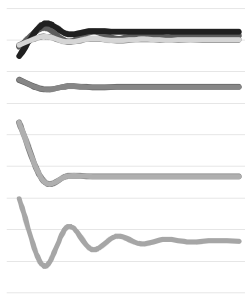
Bulgaria



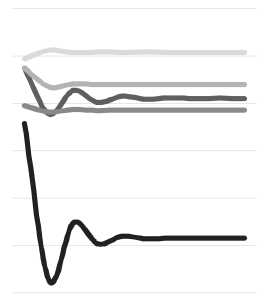
Croatia



Cyprus

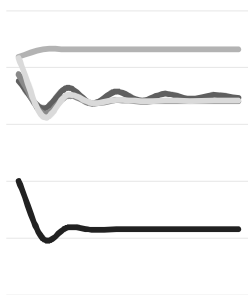


Czechia

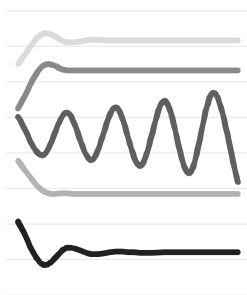


Sickness and disability
 Old age and survivors
 Family and children
 Unemployment
 Housing
 =

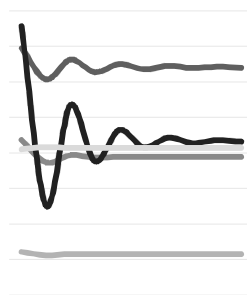
Denmark



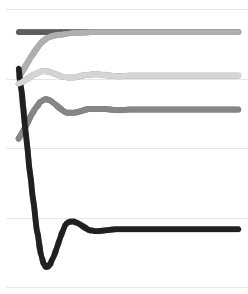
Estonia



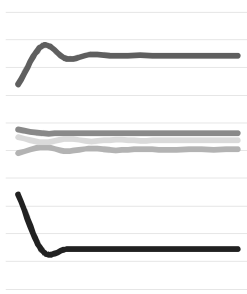
Finland



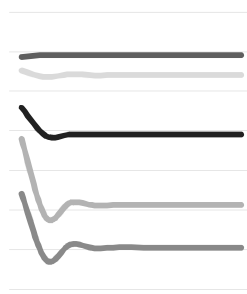
France



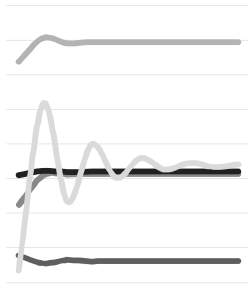
Germany



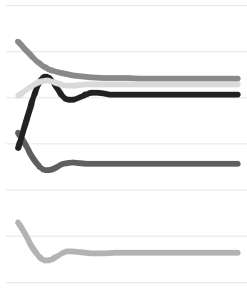
Greece



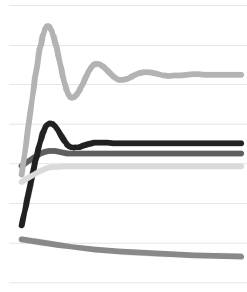
Hungary



Ireland

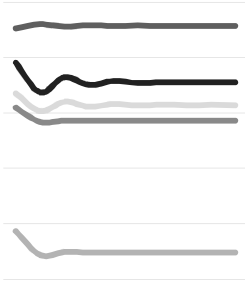


Italy

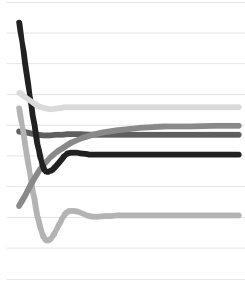


— Sickness and disability — Old age and survivors — Family and children
— Unemployment — Housing

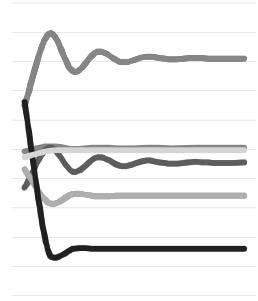
Latvia



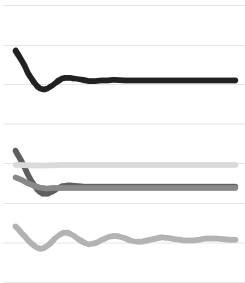
Lithuania



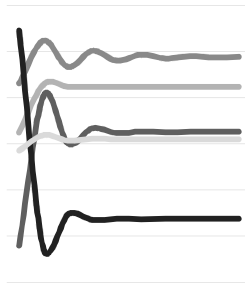
Luxembourg



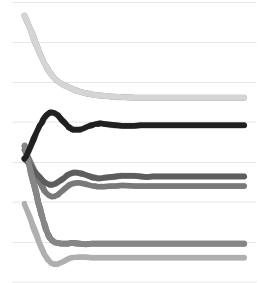
Malta



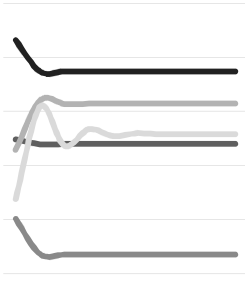
Netherlands



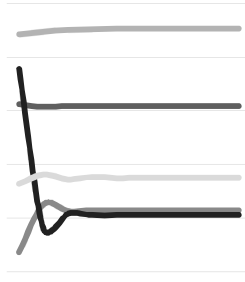
Poland



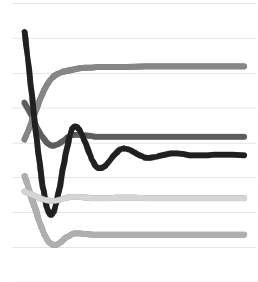
Portugal



Romania



Slovakia



— Sickness and disability — Old age and survivors — Family and children
— Unemployment — Housing =

