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How effective and efficient is the public support granted to social enterprises?

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Executive Summary

Social entrepreneurship accounts for an important share of employment in the European labour market. Social enterprises, however, are mainly funded by public budgets.

Based on the data of 307 individuals who received EU-funded support and a control group of the same size, we estimated the effect that this support had on the employability. To perform this task, we used a propensity score matching approach.

We found a positive effect of 7.8% increase in the likelihood in employment of supported group. Women benefited with an estimated 11.6% increase, and people older than 40 years of age with an estimated 14.7% increase in employment. The timespan needed for the payback time is more than 13 years.

Contents

1. Introduction

Market and government failures leave socio-economic gaps that non-profit organizations, including social enterprises, can fill by responding to these unmet social and market needs (Steinberg, 2006). Current research considers social enterprises as a bridge between the public and private sectors. These enterprises act as social entrepreneurs in the market and outside the market as socially-oriented business ventures (Helmsing, 2015). Some authors (for example Karsten, 2005; Urban, 2015) discuss the paradigm of the social market economy which redefines the public sector's role (Nicholls, 2011, p. 80) in terms of serving social needs more effectively and efficiently as a result of social innovations.

Social enterprises aim to achieve several objectives. As they work with socially excluded people, it addresses a number of socio-economic targets relevant to this group: employability, financial capacity to consume goods and services, ability to produce socially valuable activities, political participation, and social integration among family, friends, and community (Teasdale, 2010). Not all of these objectives are achievable simultaneously as there is a trade-off between economic and social outcomes (Teasdale, 2010). This conflict is particularly acute in the case of publically funded social enterprises.

The EU plays a crucial role in helping to shape the social enterprises sector. The EU's endeavour is important in assisting countries where this sector is less developed, as is the case, for example, with the countries of Central and Eastern Europe (Ciepielewska-Kowalik, 2015). The support is distributed through programmes which are financed by the European Social Fund (ESF) and the European Regional Development Fund (ERDF).

Our research is set in the Czech Republic, where social enterprise policy is developing and EU-funding assistance amounted to the highest per capita allocation within the EU for the period 2007-13. This assistance aims at Work Integration Social Enterprises (WISE) in the Czech Republic, especially at activities relating to transitional jobs, and socialization through a productive activity (for the definition, see Davister, Defourny, & Gregoire, 2004). Among the target groups of these social enterprises belong mainly disabled people (72%), and long-term unemployed (19%) (P3, 2013, p. 7). Moreover, current interest in social enterprises is growing rapidly. Thus, our research is relevant to an international audience, and particularly to governments that need an evaluation report on the effects that public funding has on social enterprises and active labour market policies (ALMP).

Our study addresses the political controversy associated with the public funding of social enterprise, and the debate about which sector of the economy should provide the funds for social enterprises to increase employment: the government or the market? It is questionable whether it is justifiable to publicly fund social enterprises when huge public budget deficits exist (Defourny & Nyssens, 2010b). This issue also raises the following research questions: (i) 'Is it effective to invest public funds in social enterprises to increase employment?', (ii) 'How does the public financial support of social enterprises change individuals' employability?', and (iii) 'How efficient is the support from a public finance perspective?' To answer these questions, we estimate the impact that the EU funding of social enterprises has in increasing the employment of people who would otherwise be excluded from the labour market in the Czech Republic.

The article consists of five sections. After the introduction, Section 2 presents a review of the literature on social enterprises funding, its application to ALMP, and the approaches applied to evaluating social enterprises' performance. Section 3 describes the method used for collecting data from the social insurance system in the Czech Republic and methods used to estimate the impact that social enterprises funding has on employment. We introduce the characteristics of the sample in Section 4. Moreover, we discuss the positive result that we gained for the estimation of this impact as well as the calculation of this support

measure's efficiency. Finally, Section 5 concludes by presenting a synopsis of the results, offering recommendations for public funding, and highlighting some limitations of our study.

2. Social enterprises as an active labour market policy provider

Social enterprises and employment

Some people lack skills and knowledge, or are disadvantaged to successfully get a job in a competitive labour market. Unemployment of these people has than psychological, economic, and social consequences causing deepening exclusion of these people from the society. Social enterprises, especially Work Integration Social Enterprises, help to integrate these disadvantaged people in labour market (Defourny & Nyssens, 2010b; Teasdale, 2010). As social enterprises are not oriented on profit, they employ also these people even if their initial working efficiency and performance is not high. Thus, they help these people to get ready for usual labour market.

Social enterprises have attracted significant attention from researchers over the last two decades (Kraus, Filser, O'Dwyer, & Shaw, 2014). Initially, it was necessary for research interest to focus on establishing a conceptual definition for the term 'social entrepreneurship'. Terminological clarification was needed, because the term became ambiguous from being applied to a variety of concepts in empirical research (Jones & Keogh, 2006; Nicholls, 2006, p. 10). Moreover, the concept of social enterprises was initially introduced in case-study research, where it only relates to individual cases (Alvord, Brown, & Letts, 2004; Dacin, Dacin, & Tracey, 2011). Current interest in social enterprises is associated with research that evaluates and assesses social enterprises and the methodologies used in such research (Bengo, Arena, Azzone, & Calderini, 2016).

The present increased interest in social enterprises centres on its labour-market applications. In the 1990s, the main type of social enterprises concerned work integration (Defourny & Nyssens, 2010a). The need to tackle structural unemployment and public budget deficits caused the social economy and existence of social enterprises to spread in Europe (Defourny & Nyssens, 2010b). Social enterprises set themselves the task of alleviating the problems of disadvantaged[1] workers and integrating them within labour market (Defourny & Nyssens, 2010b). The fact that European countries lay particular emphasis on the social economy has been confirmed in a study by Gonçalves, Carrara, and Schmittel (2015): They show that most social economy research has been conducted in Europe so far, and that approximately 65% of the research published in this field deals with European case-studies.

Moreover, the number of people estimated to be employed in the social economy in the EU underlines the importance of this sector of the economy: approximately 7.4% of the labour force in the EU-15, and approximately 6.5% in the EU-27—and the trend is increasing (EC, 2013, p. 45)[2]. This comparative study shows that the EU-12 countries have fewer people employed in the social economy. The reason for the latter result is that these countries have cooperatives as their main form of social enterprises (Nicholls, 2011, p. 81) and that this form of social organisation is associated with the communist regimes (Nicholls, 2006, p. 4).

[1] In the context of our research, disadvantaged workers/people are those who have problems to get employed because of for example health disability, low level of achieved education, lack of skills, etc.

[2] Measured as the aggregate of cooperatives, mutuals, associations and foundations.

Prior research has confirmed the importance that the public funding of social enterprise has for job creation, especially in cases where the entrepreneur is an experienced manager/leader (Rey-Martí, Ribeiro-Soriano, & Sánchez-García, 2016).In the CR, the social enterprises are perceived as organisations employing disadvantaged people with less emphasis on local development and environment in the CR.

Financing social enterprises

Financial sustainability and independence are crucial characteristics of social enterprises. Social enterprises have these advantages because they combine public grants with market income streams (Nicholls, 2006, p. 17). Owing to the socio-economic setting in which social enterprises predominantly work, public funding prevails over market funding (Nicholls, 2011, p. 82; Sunley & Pinch, 2012). Research evidence shows, however, that non-profit organizations in Central Europe, particularly social enterprises, mainly rely on public funding (Ciepielewska-Kowalik, 2015; Salamon, Sokolowski, Haddock, & Tice, 2013; Vaceková, Valentinov, & Nemec, 2016). The reason why European social enterprises depend mainly on public funding can be explained by two features of the European market's framework: (i) the non-distribution constraint (Hansmann, 1980) which signals to the public sector that its subsidies may not be used to induce higher profits which are subsequently distributed among owners or management (Defourny & Nyssens, 2010a), and (ii) the endemic cultural accent on social issues in Europe (Alesina, Glaeser, & Sacerdote, 2001).

Owing to the pressure on public finances and the government's need to ensure that the return on its expenditure is cost-effective, governments have had to engage diverse external contractors, including social enterprises, to deliver public services (Di Domenico, Tracey, & Haugh, 2009). By delegating these tasks to the social enterprises, governments can allow the market of manage their public social welfare programmes, while nevertheless retaining control over them as public policies (Nicholls, 2011, p. 81). Thus, social enterprises play an active role in implementing public ALMP which draws on both national and supra-national (EU) funds.

Within the complex of EU funding organisations, the ESF is the major funding body. Between 2014-2020, this fund is expected to invest approximately EUR 1.325 billion in the social economy in 17 member states (Johnson, 2015). This programme aims to increase employment and support the work integration of socially threatened people—thus sharing the key objectives of social enterprises (Defourny & Nyssens, 2010b).

Previous EU funding has provided an important source of support for social enterprises, although the amounts funded so far have not been very high (Defourny & Nyssens, 2010b). The social economy and social enterprises were supported by the Community Initiative 'EQUAL' during the period 2000–2006. The experience gained from this period was applied to subsequent implementations in the consecutive ESF programmes that were run during 2007–2013 and 2014–2020 (EC, 2013, p. 97). This support helps social enterprises in two ways. First, it creates the necessary framework conditions for social enterprises to exist (Ciepielewska-Kowalik, 2015). Second, it provides direct help by giving financial assistance to social enterprises (Defourny & Nyssens, 2010b).

Public support funds allocated to social enterprises are generally assumed to benefit the labour market, but not all studies support this assumption. The criticism of public support generally relates to the issue that social entrepreneurs define which social needs ought to be met. Government aid to social enterprises is criticized most often from a political standpoint for excluding democratic participation when its funds are assigned to addressing problems caused by government failure, rather than market failure (Cho, 2006). Public support of social enterprises is further criticized for the transactional and administration costs that

are incurred (Urban, 2015). Also, Western-European social enterprises are not immune from financial problems due to its considerable dependence on public funding, as evidenced by British Development Trusts (Di Domenico et al., 2009). This situation contrasts with that in the United States, where private foundations play a more important role than the public sector (Defourny & Nyssens, 2010a). Moreover, the social enterprises sector is expanding and evolving without effective evaluation tools (Donaldson et al., 2011).

Evaluation of activities of social enterprises

The growth in the number of social enterprises and the high share of public funding make it necessary to evaluate the social impact that these organisations have in providing appropriate information to stakeholders such as public and private donors, employees, managers, the local community, and target groups (Bengo, Arena, Azzone, & Calderini, 2016; OECD/EC, 2015). The indicators used for measuring performance must suit the main stakeholders' objectives and information needs, and also complement standard accounting measures (Bengo et al., 2016; Zöbeli & Schmitz, 2016). One method will not fit all evaluation purposes, and evaluations also require skilled evaluators (Harlock, 2013). Moreover, social enterprises must satisfy both economic and social dimensions (Teasdale, 2010). Thus, in order to measure the performance of a social enterprise, it is first necessary to develop several measurement tools.

Public sector evaluations should use cost-benefit analysis and key indices such as the social return on investment (OECD/EC, 2015) or impact evaluations to measure social effects. Rating scales also need to be developed to help social entrepreneurs and private investors to make their decisions. For example, the rating scales used by banks can also be applied, although social entrepreneurs only make use of bank loans to a limited extent (Sunley & Pinch, 2012). Social entrepreneurs need to be aware of both microeconomic and social issues, and should therefore use blended-value accounting methods (Manetti, 2014) and general performance measurement systems with respect to the different types of impacts that are being considered (Arena, Azzone, & Bengo, 2015; Crucke & Decramer, 2016). In the case of small and medium social enterprises, the managers should use less sophisticated accounting methods (Zöbeli & Schmitz, 2016).

As Donaldson et al. (2011) point out, methods for evaluating of the comparative success of social businesses do not extend beyond assessing financial sustainability and outreach, measured as the number of supported beneficiaries. From this perspective, these studies rely more or less on monitoring tools, and cannot be seen as applying an evaluative approach.

The evaluation culture is developing. Application of the rigorous counterfactual impact evaluation methods specified under the EU Cohesion Policy has been very limited (Frondel & Schmidt, 2005), but recent developments have brought about a change in evaluation practice. Still, in evaluations, positivism and qualitative methods prevail over normative approaches and quantitative methods (Hoerner & Stephenson, 2012). Our contribution follows this direction and applies quantitative methods to evaluate the impacts of EU funds on employment in social enterprises.

3. Data and methodology

Social entrepreneurship is defined within the framework of the ESF Operational Programme Efficient Human Resources and Employment (OP HRE), a programme financed by the ESF and the state budget of the Czech Republic. The support area 3.1 of this programme is assigned to support social integration and social services. The support of social enterprises is aimed at providing employment, education and psycho-social job-related support to their clients. The investigated calls for proposals had the following goals:

- Integration of disadvantaged people into the labour market.
- Establishment and development of social enterprises.
- Devising a suitable model for social enterprise for the Czech Republic.

Actually, as already mentioned, the primary objective of social enterprises is to integrate disadvantaged people on labour market in the Czech Republic. Thus, the first objective was the objective followed by the applying social enterprises. By obtaining funding, the second objective could be also achieved. The third objective stayed beyond the capacities and competencies of applicants.

The supported projects had to meet the following stipulated criteria:

- The newly established business activities must become economically independent in the future and be able to remain in the local competitive environment. They must link investment and non-investment funding to achieve a systemic approach to ensure the continuity of the social economy and the conditions for an effective system of employment as well as the social inclusion of disadvantaged people in the labour market.
- Social enterprise must reduce unemployment and promote social inclusion by employing at least 40% of the employees belonging to the target groups of the programme.
- Majority of profit generated must be used for the development of the social enterprise and fulfil its charitable purposes, and must not be redistributed to the founders, the partners, or the managers. It is mandatory that at least 51% of the profit be reinvested in the social enterprise.
- The activities of the social enterprise must be local or regional and consider environmental issues in order to meet local needs. The social enterprise must use local resources, engage in local initiatives and partnerships, contribute to local development, and take environmental issues into account.

Social entrepreneurship was addressed in the OP HRE, and the Integrated Operational Programme (IOP). In total, 121 social enterprises were supported: 78 social enterprises received support from OP HRE, and 18 from IOP; additionally, 25 social enterprises received support from both programmes. The allocation for all three calls amounted to EUR 18,489,371.

The support was aimed at the creation and development of business activities focused on social entrepreneurship. It aimed to enable socially excluded people to become integrated into the labour market and society. The target group included people in long-term unemployment, people previously engaged in drug abuse, people taking care of a dependent relative, victims of crime, people leaving prison, the homeless, and people with disabilities. According to the managers of implemented projects, the target group consisted of handicapped people (52%), long-term unemployed (18%), young people (6%), ethnic minorities (6%), and other unspecified target groups (18%).

The analysis of people gaining employment through social enterprises was conducted for about 43% of the projects that were launched and 64% of the people who were supported.

The main activities of social enterprises were from the sector of Accommodation and food service activities (29.9%, NACE 8, of which food services consist 19.6%, food production 8.4%, and accommodation 1.9% respectively), followed by Manufacturing (16.8%, NACE 2).

3.1. Data

For the purpose of this research, our data was supplied by the Czech Social Security Administration (CSSA). There are legal limits concerning the provision of data on individuals to third parties. For this reason, the queried CSSA data has to first be forwarded to the Ministry of Labour and Social Affairs of the Czech Republic (MoLSA) in an anonymized form before it is released for research purposes. The dataset consists of two groups of individuals. The first one comprises of individuals supported by the OP HRE and the IOP, and the second group is a control group.

We obtained complete data for 405 individuals supported by social enterprises from of a total of 478 individuals identified in 52 projects. For these people, we obtained information about their situation on the labour market after the end of the support. From the total completed data received, the data for 73 individuals had to be excluded in cases where we did not have complete information about their employment during the post-intervention year (i.e., the year following the project end date). Moreover, we also had to exclude the cases where the individuals were not identified in the CSSA database. After purging our data, the final sample consisted of 307 individuals who were still in the same employment one year after the close of their participation in the support programmes. Moreover, we also obtained separate data for 20,002 individuals to form the control group.

We used the following variables to identify individuals in the CSSA dataset: surname, first name, date of birth, and residence. This information was subsequently erased from the dataset which was provided for the research (see Table 1 for an overview of all the query variables).

The 307 persons in the final sample are equally represented according to gender (see detailed distribution in Table 5 in the Annex). There are differences in geographical distribution. The distribution of frequencies corresponds to the economic performance of particular regions. Thus, the lowest frequencies appear for Prague and Southern Moravia which are the regions with the highest GDP per capita in the Czech Republic and regions with lowest unemployment rate. Moreover, individuals from Prague are rare in the sample, as the HRE OP is aimed primarily at regions outside Prague.

Sample distribution according to age is approximately uniform with a slightly higher proportion of younger people (see Table 6 in the Annex). Almost half (49.5%) of supported individuals were younger than 40 years of age. This distribution is mainly due to the fact that the eldest group was approaching retirement age at the time of project implementation.

Table 1: List of variables

Variable	Definition	Source
Name	Name of a supported person. The name was erased from the dataset by CSSA after completion of the dataset.	Managers of the implemented projects.
Family name	Family name of a supported person. The name was erased from the dataset by CSSA after completion of the dataset.	Managers of the implemented projects.
Date of birth	Date of birth in the format DD.MM.YYYY. Date of birth was replaced by year of birth by CSSA after completion of the dataset.	Managers of the implemented projects.
Gender	Man / Woman	Managers of the implemented projects. CSSA for control group.
Year of birth	Year of birth	CSSA
Start of support	Start Date of the individual's support project. The date has the format MM.YYYY. The exact date when a person entered a project, if the managers of implemented projects knew that date (eight projects). Otherwise, the project's start date is used.	MONIT7+
End of support	End Date of the individual's support project. The date has the format MM.YYYY. The exact date when a person left a project, if the managers of implemented projects knew that date (eight projects). Otherwise, the project's end date is used.	MONIT7+
Residence	Place of residence of a person in January 2009. This consists of the first three digits of the respective Czech ZIP code. There are seven categories of regions according to the first digit: Prague, Central Bohemia, Southern and Western Bohemia, Northern Bohemia, East Bohemia, Southern Moravia, and Northern Moravia.	Managers of the implemented projects for the respective individuals. CSSA as control group.

Source: Own elaboration

3.2 Methodology

The estimation of impact that support has on employability is based on the comparison between a group of supported and a group of non-supported individuals. We used propensity score matching to obtain two statistically similar groups in order to estimate the impact (Rosenbaum & Rubin, 1983).

A logit regression was used to obtain the propensity score. We used the following variables to compute the propensity score for each person: place of residence, gender, year of birth, and employment in Janu-

ary 2009. In cases where the non-supported group consisted of more than one individual, the match was performed randomly. Next, the individuals with similar propensity scores from both groups were paired. An approach for nearest neighbour matching without replacement (cases already paired are not available to be paired again) was applied with a caliper threshold (the maximum tolerated difference between matched subjects) of 0.2 of the standard deviation of the logit of the propensity score (for more details, see, e.g., Khandker, Koolwal, & Samad, 2010).

This gave us a final sample of 307 in each group. To avoid selection bias as much as possible and to increase the precision of our estimates, we used as many variables as possible based on characteristics which were specific to the period before the support started. Statistical tests proved that both groups are statistically similar regarding the above-mentioned observable variables (we can provide these upon request). Still, we had no information about the health or the educational status of the individuals in our sample, as these variables are not available in the database of the CSSA. These variables would have increased the precision of the matching between the supported and the control groups.

Since the support was not provided simultaneously to all participants, we have to control for the development of economic variables in the months surveyed. We did this by matching individuals. We took the same pre-intervention and post-intervention periods for each pair, the information being drawn from the data of the supported individuals. This method ensures that the general unemployment rate and the economic growth rate are the same for both individuals in a given matched pair, which in turn prevents any variation between pairs from having an effect on estimated impact. We also checked whether the common support (sufficient overlap in the propensity scores of the matched cases from the two groups) is sufficient to apply propensity score matching, since the propensity score covers the same interval for the compared groups.

We used Stata 13 and IBM SPSS Statistics 22 software for our analysis.

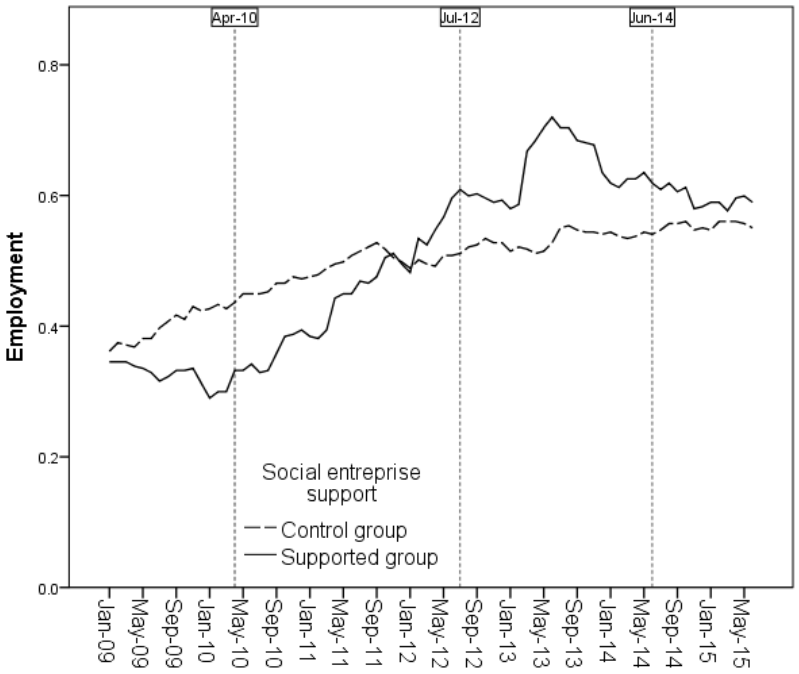
4. Results and discussion

4.1. Development of employment

The Czech Republic's long-term unemployment rate fluctuated within a range of 5 – 9% in the period 2009-2015 (MoLSA, 2016). While unemployment for the whole Czech economy is one of the lowest unemployment rates in Europe, the sample of individuals of our research witnessed an unemployment rate of around 65% in 2009.

The implemented projects began to provide actual support to individuals in April 2010. For our sample, we count the period of support as beginning on 1 April 2010 and ending on 30 June 2014. As mentioned earlier, the few individuals who were still in supported projects after this end date were excluded from our sample. The number of individuals receiving support from social enterprises peaked in July 2012, when about 70% of individuals in our sample's target group were being supported by the projects. The Figure 1 shows the development of control group's employment (on normal labour market) in comparison with situation of supported group (on both normal and subsidized labour market).

Figure 1: Development of employment



Source: MONIT7+, CSSA, own calculations

The descriptive statistics in Tables 5, 6, and 7 show the changing employment of the supported individuals before and after the support. It enables us to compare their employment situation when commencing the supported projects, with their position on completing the project, and their position one year after its completion.

The average aggregate employment rate for individuals in the supported groups at the end of the support does not reach the value of 100%. This is due to the fact that, for many of the individuals, the end of support is assumed to coincide with the end of the project, but the data on employment use actual calendar dates. This, thus, gives rise to a discrepancy which occurs when an individual terminated his or her employment with the social enterprise before the end of a project and did not find another job until the end of the respective project.

We note here that the employment rate has a positive value (above zero) prior to the commencement of support, because some participants were employed elsewhere at the time of entering a project, and took on the project work to increase their employability.

Some differences in employment in the pre- and post-intervention periods appeared. The employment rate between men and women was almost the same before the support (see Table 5 in the Annex). Women achieved a higher employment rate one year after the support than men did (the respective changes were 33.1 pp and 24.7 pp). The group of participants up to 50 years of age achieved a greater positive percentage increase in employment (+ 32.6 pp) than the group of participants above 50 years of age (+ 19.3 pp.); see Table 6 in the Annex. According to the regional comparison within the supported group, the unemployment rate decreased during the period starting one month before the support start date and ending one year after the support end date: the percentage decreases were strongest for Central Bohemia (36.6 pp) and Southern Moravia (36.4 pp), followed by Southern and Western Bohemia (32.1 pp). The percent-

age decrease in the employment rate is also high for the region with the lowest percentage change – Eastern Bohemia with 22.4 pp (see Table 7 in the Annex).

As reported by Hora and Sirovátka (2012), it is difficult to identify the focus of the subsidies provided by the ESF programmes. These programmes are essentially aimed at providing supplementary interventions to assist the disadvantaged unemployed by applying a more complex individual approach which uses ALMP instruments. Thus, comparison with our study is possible on a general level, e.g., in terms of how participants are employed on the labour market after taking part in ALMP programmes one, six months, and one year after the end of support. According to Hora and Sirovátka (2012, pp. 32-34), in 2009, the proportion of individuals within the supported group who became employed or self-employed is 33.9% one month after the support ended, 36.8% six months afterwards, and 30.4% after one year. The results of our study show similar dynamics in the case of social enterprises, albeit at a different level, where these respective shares are 61.2%, 64.2% and 62.9%. Our results show a significantly better situation. It is not possible to generalize from these results, because of the different economic situations and the inability to verify the focus of programmes in the case of Hora and Sirovátka (2012). On the other hand, it is possible that the support programmes in our study are implemented more effectively.

Table 2: Share of employment and self-employment in ALMP 2007 and 2009 applied to social entrepreneurship programmes 2009-2015

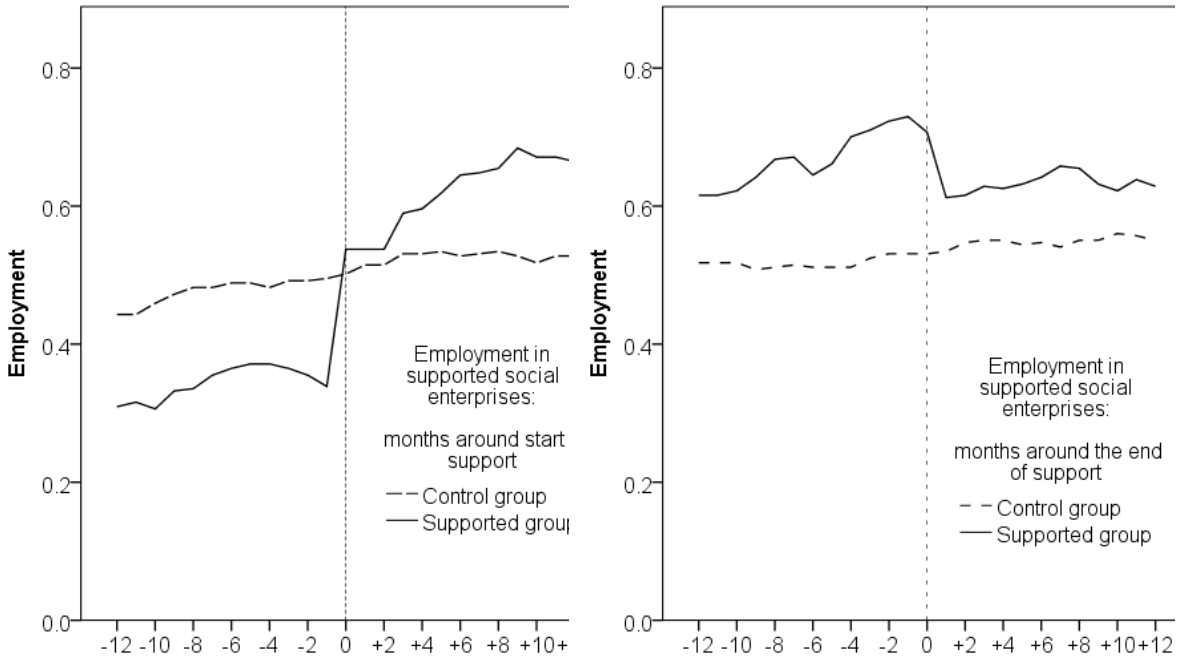
Programmes	**One month after the support (%)**		**Six months after the support (%)**		**One year after the support (%)**	
	2007	**2009**	**2007**	**2009**	**2007**	**2009**
ESF	44	34	64	37	75	30
Without ESF	33	13	60	55	63	52
Social Entrepreneurship Support 2009-2014	61		64		63	

Source: Hora and Sirovátka (2012, pp. 33-34), own calculations

4.2. Results of propensity score matching and discussion

Figure 2 presents graphs of the change in employment before and after the support intervention for both the supported and the control group. The pre-intervention graph on the left of Figure 2 shows the employment paths for both groups before and during intervention, while the graph on the right shows the employment paths during intervention and after intervention (when no more support was provided by the public budget). The post-intervention graph on the right of Figure 2 shows that employment decreased during the first month after the employment support ended, because some social enterprises fired people whose salaries were paid by the ESF when the ESF funding stopped. The level of the employment rate was more or less stable during the post-intervention year, with some decline in the last quarter.

Figure 2: Change in employment before and after the support



Source: MONIT7+, CSSA, own calculations, N=307 in each group

The highest proportion of employed individuals occurs in the month when support ended (70.7%). After this, the employment rate dropped, but remained stable at this level during the post-support year (see tables in the Annex and Figure 2). The employment rate was approximately 40 pp higher in the month in which support stopped than it was in the pre-intervention month, and approximately 30 pp higher in the post-intervention month than in the pre-intervention month.

Our estimates confirm that the EU-funded support of social enterprises has a positive impact on employment. The estimates are +17.6% (p-value = 0.000) higher for the supported group than for the control group for the month when the support ended. The employment estimates slowly decrease over the post-intervention year, with an estimate of +7.8% (p-value = 0.049) one year after the support end date. The estimates demonstrate the sustainability of the jobs created by social enterprise funding in contrast to other types of ESF-funded ALMP interventions, such as company training programmes (Potluka, Brůha, Špaček, & Vrbová, 2016).

The effect that social enterprise funding has on women's employment during the post-intervention year is observed to drive the increase in the aggregate estimate for that period. The estimates are four to six times higher for women than for men during the first year after the support, while it is +11.6% (p-value 0.032) one year after the end of support. The higher estimated values for the impact on women than on men are consistent with the results of Deidda, Di Liberto, Foddi, and Sulis (2015) or Bergemann and van den Berg (2008). These studies explain that ALMP have a greater effect on women's employment, because female labour supply is more elastic than the male labour supply, and because female labour has low investment requirements, as the female productivity is high in Europe.

Age also plays a role in estimating the impact of the ESF assistance. During the post-intervention year, the estimated percentage increase in employment is higher for the older population (those born before

1976), ranging between 10 and 20 percentage points, than it is for younger target groups. Although the older group is more experienced, it is disadvantaged on the labour market because of rulings on human capital depreciation (Deidda et al., 2015). On the other hand, the older group is also more motivated to obtain and keep a job.

Thus far, we have shown that the social enterprise support programme is effective, but we still have to estimate its efficiency. To do so, Table 3 presents the calculation of the payback time from the perspective of the state budget. In column (1), we show the total expenditure on funding the social enterprise programmes in our sample. In column (2), we present the amount of unemployment support that is saved owing to the social enterprise employment programmes based on a study by Čadil, Pavelka, Kaňková, and Vorlíček (2011). According to this study, 5 months of unemployment support amounted to EUR 1,339 (yearly EUR 3,214) per person in 2009 (our pre-intervention period). The total amount is calculated by multiplying of the four following values: (i) the yearly cost of EUR 3,214 (YUS); (ii) the unemployment rate of 65.5% in January 2009(u01-2009); (iii) the sample size of 307 persons receiving support (N); and (iv) the estimate of the impact that funding had on employment at the end of the post-intervention year for the sample; i.e., 7.8% (Δuy). Furthermore, in line (3), we proceeded similarly as in line (2), using the size of unpaid taxes and insurance which would be paid by the state otherwise (UTI), which equates to EUR 1,558 for five months (yearly EUR 3,738) (Čadil et al., 2011). Line (4) gives the revenue of the state budget for an employed individual (i.e., the total annualized amount of the tax on personal income and social insurance contributions, respectively 15% and 26% of gross salary). This calculation is similar to the one used in line (2) applying the median gross monthly wage (MGW) of EUR 596 used in the study by Čadil et al. (2011). The lines (3) and (4) represent opportunity costs approach from the perspective of the state budget. The line (7) represents amounts saved due to the direct employment during implementation of projects. It is composed of YUS, UTI, and amount of the tax and social insurance contributions on MGW multiplied by the sum of employment years during projects' implementation. During the projects' implementation, there were 3,777 months of employment (which represents 63.4% employment rate). Adjusted to annual basis, it means 314.75 of employment-years for the whole surveyed sample.

Other results are then determined from this data.

Table 3: Rate of payback time for the EU funding of social entrepreneurship

Item	N°	Sum (EUR)	Explanation
The total ESF expenditure	(1)	4,241,407.78	
Yearly saved unemployment support	(2)	50,406.92	YUS x $u_{01\text{-}2009}$ x N x Δu_y
Yearly decrease in tax and insurance income	(3)	58,632.63	UTI x $u_{01\text{-}2009}$ x N x Δu_y
Yearly increase in tax and insurance income	(4)	45,986.64	(0.15+0.26) x MGW x $u_{01\text{-}2009}$ x N x Δu_y
Total yearly balance	(5)	155,026.19	2+3+4 (result in EUR)
Payback time without direct employment in projects (years)	(6)	27.36	1/5 (result is in years)
Total savings during the direct employment in projects	(7)	2,191,073.96	(YUS + UTI + (0.15 + 0.26) x MGW) x 314.75
Payback time with direct employment in projects (years)	(8)	13.23	(1-7)/5 (result is in years)

Source: CSSA, MONIT7+, own calculation

The results show that the return on the invested funds takes a relatively long time between the initial outlay and anticipated return in the case of funded social enterprises. If we apply the estimated costs invested in one unemployed individual as being between EUR 6,096 and EUR 9,064 for the period 2010-15 (Jahoda & Godarová, 2016), the respective times to payback without counting with direct employment are 44.4 and 29.8 years. The second estimation in this study is very close to our estimation without taking into account direct projects' employment.

However, it should be noted that the calculation was based on information about the sustainability of jobs one year after the support has ended and therefore does not capture longer-term trends. Moreover, the estimation of the impact varies during the year after the support. As we presumed the direct employment in projects boosted the estimated efficiency of the support, but we have to be cautious about it. We assume that majority of the employment relates to implemented projects, but our data provides information about employment, but not on employers.

Besides the main impact of increased employment among target groups, there are also other effects of the assistance. First, the labour motivation of the target groups increased. The evidence is in stable employment even after the end of direct support by the ESF. It is connected with a psychological aspect of not being dependent on social security benefits or unemployment benefits paid by the state. This is reflected in increasing self-confidence and a sense of social desirability. Moreover, the integrated target groups have higher contact with other people, especially in such social enterprises as restaurants, cafes or shops. Here, the impact reflected awareness of belonging to the majority population. Another aspect concerns prevention of indebtedness. Getting a regular income (usually with a combination with counselling) lead to increased awareness of financial issues, and prevented debt traps.

The results confirm the importance of public funding for social enterprises. Our results differ from Zöbeli and Schmitz (2016), who highlight that the institution of social enterprises is important, but that this sector does not require a specific form of financial funding. They found that in the Swiss context social enterprises aim to maintain an independent financial status (i.e., market funding, donors), as these entities are run more as businesses than as social institutions.

5. Conclusion

Our study has made a contribution to the body of knowledge on the economic impacts of social enterprises on employment. The evaluation approaches that are presently applied to social enterprises are still evolving and our present research relates to evaluating only one of the many objectives that such an enterprise may pursue – the evaluation of the impact that public support has on the employability of the people who are supported by social enterprise programmes.

This study's estimates show that the public funding of social enterprises makes sense from a political point of view as it is an effective tool for supporting employment. The estimates show that this type of funding has a positive impact on the probability (7.8% increased likelihood) that an individual participating in a social enterprise programme will obtain a job and become employed. Public funding therefore helps to achieve the political goals of the EU funding policy, as stipulated in the EUROPE 2020 strategy (EC, 2010). Moreover, our research confirmed positive effects on the employment prospects of groups threatened by exclusion from the labour market. The estimated impacts on employment clearly confirm the importance of this form of public support. Our study's results show that, with this funding, women have an increased likelihood of keeping a job (+11.6%), and people older than 40 years of age have an increased likelihood of obtaining employment (+14.7%). Thus, the support helps to integrate socially excluded people and to let them live better lives.

On the other hand, from the economic point of view is the support more controversial as the efficiency of the support is not high. It takes more than 13 years to obtain all the investment back in return. Thus, it is evident that the psycho-social effects that social enterprises have on individuals' lives, i.e., the informal, 'soft', 'person-related' effects, are more efficacious than the economic effects. This finding confirms the trade-off between economic and social outcomes and the impracticability of achieving all goals at once (Teasdale, 2010). Such a controversy is typical for public policies, as the decision-making is not purely based on economic criteria, but also on social and political values.

The recommendations for the managers of the support programmes concern mainly the target groups. The previous open calls for proposals related to general target groups of social enterprises. According to our results, the new calls should be aimed at women and people older than 40 years of age to achieve greatest impact.

We are aware of the limits of our research. Data on the education status and on the disabilities of the individuals involved in the surveyed support programmes would increase precision of our estimates.

Future research should also consider longer time-spans and job sustainability, as our research was limited to observing the impact of social funding for only one year after the support end date. Thus, we could not say anything about longer-term job sustainability. This question is especially important in relation to the payback time and with regard to whether the support helped to improve not only the participants' employment status, but also their employability.

Table 4: Employment one month before and one year after the support according to gender

Gender		Employment one month before the support started		Employment one month after support ended		Employment six months after support ended		Employment one year after support ended		Total
		no	yes	no	yes	no	yes	no	yes	
Woman	N	103	54	50	107	47	110	51	106	157
	%	65.6%	34.4%	31.8%	68.2%	29.9%	70.1%	32.5%	67.5%	51.1%
Man	N	100	50	69	81	63	87	63	87	150
	%	66.7%	33.3%	46.0%	54.0%	42.0%	58.0%	42.0%	58.0%	48.9%
Total	N	203	104	119	188	110	197	114	193	307
	%	66.1%	33.9%	38.8%	61.2%	35.8%	64.2%	37.1%	62.9%	100.0%

Source: MONIT7+, CSSA, own calculations

Table 5: Employment one month before and one year after the support according to age

Year of birth		Employment one month before the support started		Employment one month after support ended		Employment six months after support ended		Employment one year after support ended		Total
		no	yes	no	yes	no	yes	no	yes	
1946 and earlier	N	9	6	4	11	4	11	5	10	15
	%	60.0%	40.0%	26.7%	73.3%	26.7%	73.3%	33.3%	66.7%	4.9%
1956-65	N	37	31	22	46	24	44	25	43	68
	%	54.4%	45.6%	32.4%	67.6%	35.3%	64.7%	36.8%	63.2%	22.1%
1966-75	N	44	28	25	47	22	50	19	53	72
	%	61.1%	38.9%	34.7%	65.3%	30.6%	69.4%	26.4%	73.6%	23.5%
1976-85	N	60	24	35	49	32	52	35	49	84
	%	71.4%	28.6%	41.7%	58.3%	38.1%	61.9%	41.7%	58.3%	27.4%
1986 and later	N	53	15	33	35	28	40	30	38	68
	%	77.9%	22.1%	48.5%	51.5%	41.2%	58.8%	44.1%	55.9%	22.1%
Total	N	203	104	119	188	110	197	114	193	307
	%	66.1%	33.9%	38.8%	61.2%	35.8%	64.2%	37.1%	62.9%	100.0%

Source: MONIT7+, CSSA, own calculations, Age as on January 2009

Table 6: Employment one month before and one year after the support according to place of residence

Region		Employment one month before the support started		Employment one month after support ended		Employment six months after support ended		Employment one year after support ended		Total
		no	yes	no	yes	no	yes	no	yes	
Prague	N	10	5	6	9	6	9	6	9	15
	%	66.7%	33.3%	40.0%	60.0%	40.0%	60.0%	40.0%	60.0%	4.9%
Central Bohemia	N	25	5	17	13	15	15	14	16	30
	%	83.3%	16.7%	56.7%	43.3%	50.0%	50.0%	46.7%	53.3%	9.8%
Southern and Western Bohemia	N	49	32	22	59	20	61	23	58	81
	%	60.5%	39.5%	27.2%	72.8%	24.7%	75.3%	28.4%	71.6%	26.4%
Northern Bohemia	N	23	25	11	37	10	38	9	39	48
	%	47.9%	52.1%	22.9%	77.1%	20.8%	79.2%	18.8%	81.3%	15.6%
Eastern Bohemia	N	37	12	26	23	28	21	26	23	49
	%	75.5%	24.5%	53.1%	46.9%	57.1%	42.9%	53.1%	46.9%	16.0%
Southern Moravia	N	10	1	5	6	5	6	6	5	11
	%	90.9%	9.1%	45.5%	54.5%	45.5%	54.5%	54.5%	45.5%	3.6%
Northern Moravia	N	49	24	32	41	26	47	30	43	73
	%	67.1%	32.9%	43.8%	56.2%	35.6%	64.4%	41.1%	58.9%	23.8%
Total	N	203	104	119	188	110	197	114	193	307
	%	66.1%	33.9%	38.8%	61.2%	35.8%	64.2%	37.1%	62.9%	100.0%

Source: MONIT7+, CSSA, own calculations, Residence as on January 2009

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