Debt Capacity of Nonprofit Entities: Jobs on the Green Economy
Background Case

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Abstract
Nonprofit social economy entities usually are concentrated on realization of their social mission. One from
the areas of social economy fields is a green economy activity. In this article, green jobs are defined as decent work places for young people who can commence employment in section E of PKD. On the background of green economy young people situation is analysed in chosen group, then data suitable for Poland are synthesized to provide calculations. Young people situation is very difficult due to many factors on local labour markets but for very specific group able to undertake green employment the same situation can be different - stable and balanced. This young people group can easily find employment in future because of accepted by government responsible development plan for Poland.

Keywords: Financing non-profit, Capital structure, Green economy, Green jobs, Unemployment.

JEL Classification: Q20, Q56, E24, J43, Q13, R11

1 Introduction
Nonprofit organizations are concentrated on realization of the social mission. One from the areas of social economy fields is a green economy activity. Environmental challenges raise serious concerns for the welfare of current and future generations. Therefore, modern economy has to be sustainable and responsible in three dimensions: economic growth, environment protection and social development. This new economy is called green economy and jobs which offer are green jobs. On the other hand, the most precious natural asset is drinking water, which allows society to thrive and prosper and because of that it all related to water and water treatment are so important for economy (comp. Bem, 2016; Siedlecki, 2016; Michalski, 2013; Michalski, 2014; Nemec & Svidronova, 2017; Nemec, Merickova, & Svidronova, 2016; Cheben & Lancaric, 2015; Pokrivcak & Toth, 2016).

For the purposes of this article the definition of the United Nations Environment Programme (UNEP) is used and states that green economy is "one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance

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energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services" (UNEP 2017) Firms that are active in reduction of carbon emissions or in reduction of pollution, by which they enhance energy and resource efficiency, or prevent the loss of biodiversity and ecosystem services are part of social efforts in creating the ‘better world’ mission typical for social economy (Michalski 2016a), (Michalski 2017a).

An important document is report created by UNEP’s Green Economy Initiative in collaboration with economists and experts worldwide (UNEP 2017). The greening of economies is an effect not only governmental initiative but also local firms and NGO’s initiatives that are part of social economy oriented businesses (Sinicakova et al. 2017; Soltes & Gavurova, 2016). It demonstrates that the greening of economies is not generally a drag on growth but rather a new engine of growth; that it is a net generator of decent jobs, and that it is also a vital strategy for the elimination of persistent poverty (Sulich 2016a, 2016b). The report also seeks to motivate policy makers to create the enabling conditions for increased investments in a transition to a green economy (UNEP 2017). The policy makers by creating the enabling conditions for increased investments in a transition to a green economy should be potentially supported by for profit businesses and non-profit entities working as part of social economy sector (Michalski 2016b), (Michalski 2014).

Nowadays is very important to create new jobs in the Environmental Goods and Services Sector (EGSS). This sector of economy is distinguished by Eurostat sector of the widely discussed green economy (Eurostat). During increasing investments in a transition to a green economy, support by for profit businesses and non-profit entities working as part of social economy sector will create new jobs in that area (Michalski 2017b), (Brozyna 2015). Green Jobs describes the state-of-play of green employment in renewable energy, buildings, transportation, basic industry, recycling, farming, and forestry. This article follows the definition of green jobs according to the International Labour Organization (ILO) which defines this positions “being decent jobs, either in traditional sectors or in the new green ones, which contribute to preserving or restoring a sustainable environment” (ILO 2017). Growing investments in a transition to a green economy in for profit businesses and non-profit entities working as part of social economy sector will support that activities in both traditional and new sectors (Brozyna 2016), (Bem 2015), even in healthcare oriented social economy businesses (Szczygiel 2015). More precisely green jobs are decent jobs that: reduce consumption of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution and protect and restore ecosystems (UNEP 2017). By creating green jobs reducing consumption of energy and raw materials, limiting greenhouse gas emissions, minimizing waste and pollution and protecting and restoring ecosystems, social economy businesses reduce general risk of economic system in the country they operate (Sinicakova & Gavurova, 2017). Thank that is possible to use lower levels of debt to equity indicators in social economy enterprises (comp. Ucieklak-Jez, 2015; Ucieklak-Jez & Bem, 2015; Belas, 2016; Homolka, 2015; Belas, 2014; Bem & Michalski, 2015; Brozyna & Michalski, 2015).

In July 2014, the European Commission presented the “Green Employment Initiative” based on EU Commission Communication 2014 which assumes (EC, 2017):

• upholding a debate on the prospects of the green economy involving all stakeholders, employers and trade unions and sharing knowledge and practices on the green sectors at international level;
• identifying new competences that are needed and training for workers;
• shifting the tax burden from work to pollution;
supporting small enterprises in the transition to comply with environmental regulations.

Green jobs initiative highlighted the dual challenge of green jobs: to make economic growth and development compatible with climate stabilisation and a sustainable development footprint. The shift towards greening the economy will require the second greatest economic transformation after industrial revolution and will bring tremendous changes on labour market. Now Polish society has to pay more attention to the social dimension of sustainable development, especially its implications for employment, training and decent work (comp. Michalski, 2016a; Michalski, 2016b; Brozyna, 2016; Michalski, 2015; Michalski & Brozyna, 2015).

The social development is important in Poland, especially as a part of labour market, because it brings better qualifications and awareness of society. Fundaments of social development are young people because they are factor of generational change. Moreover, business has to also concern the role of young people as a guarantee of its future. In this article following definition is formulated as consequence of methodology assumed by Central Statistical Office (GUS) in Poland: the terms “youth” and ”young people” are referred respectively to the age groups (GUS 2017), 15-24 and 25-34. Young people in this age are students or graduates from vocational and secondary schools or universities.

The aim of this article is to examine possibilities of employment new entrants to the labour market, which are graduates up to one year after graduation, in green jobs sector. The analysis is based on results of survey conducted among Polish universities which offer education allowing young people to commence employment in chosen sector. Then these data are compared with results of Central Statistical Office (GUS) collected in Poland and gathered in Local Data Bank (BDL).

2 Delivering a green economy - the twin challenge

In balancing environmental, economic and social elements, the green economy concept has much in common with the notion of sustainable development. There is a need to ensure an equitable distribution of the benefits (and also the costs) of the transition to a green economy.

Green jobs hold the promise that Polish society will be able to respond effectively and fairly to the following two defining challenges of the 21st century. First is averting dangerous and potentially unmanageable climate change and protecting the natural environment which supports life in Poland. The second challenge is providing decent work and thus the prospect of wellbeing and dignity for all. Decent work is defined as opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. Therefore, decent work sums up the aspirations of people in their working lives: opportunity and income; rights, voice and recognition; family stability and personal development; for fairness and gender equality. Ultimately these various dimensions of decent work underpin peace in communities and society.

Announced in 2016 by Polish Ministry of Development plan titled “Plan for responsible development” consist map of intelligent specializations which focuses on assets in chosen economy segments where Poland can be successful (MD, 2017). Intelligent specializations are based on possibilities and expectations towards each voivodship. Few of these specializations are closely related to green economy (Figure 1).
The intelligent specializations describe perspective of future development of Poland in areas economy which can mitigate differences between eastern and western Poland and reduce unemployment especially among young people. Accepted by ministry plan is also compatible with Polish Classification of Activities (PKD) and fields of education on all its levels (MD, 2017).

Green jobs are not defined in Poland in any legislative act. However, it is possible to distinct this sector from Polish Classification of Activities (PKD). This classification consists group E which can be accepted as an equivalent of green jobs category (Journal of Laws, 2004).

<table>
<thead>
<tr>
<th>PKD section</th>
<th>PKD group number</th>
<th>PKD description of group</th>
</tr>
</thead>
<tbody>
<tr>
<td>E - water supply; sewerage, waste management and remediation activities</td>
<td>36.0</td>
<td>Collection, purification and distribution of water</td>
</tr>
<tr>
<td></td>
<td>37.0</td>
<td>Sewage disposal and treatment</td>
</tr>
<tr>
<td></td>
<td>38.1</td>
<td>Waste collection</td>
</tr>
<tr>
<td></td>
<td>38.2</td>
<td>Waste treatment and disposal</td>
</tr>
<tr>
<td></td>
<td>38.3</td>
<td>Materials recovery</td>
</tr>
<tr>
<td></td>
<td>39.0</td>
<td>Remediation activities and other service activities related to waste management</td>
</tr>
<tr>
<td></td>
<td>84.2</td>
<td>Services to the entire society</td>
</tr>
</tbody>
</table>

Source: Data extracted from Journal of Laws and GUS 2017b

The choice of the E section presented in Table 1 is based also on statistics provided by Eurostat. According to its official statistics 61% of employed in Environmental Goods and Services Sector (EGSS) works in areas distinguished in Table 1 (Eurostat, 2017). The most developed subsector of EGSS is water and waste water management (40 % of all employed in EGSS) next to waste management (34 %) (Eurostat, 2017). Green sectors will require new jobs, but they will also need to redefine many existing job profiles. Creating green jobs is possible in all fields of activity, but some industries are more suited, such as renewable energy, construction, agriculture, transport, recycling. Thus, the development of these fields of activity offer significant opportunities for jobs.
creation, but also leads to some challenges for traditional jobs. Employment changes in E section of PKD are presented in Table 2, which shows steady growth in number of employed in full time in this economy sector.

Table 2 Employment changes in E section of PKD in Poland

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employed</td>
<td>142096</td>
<td>144411</td>
<td>145603</td>
<td>146704</td>
<td>147738</td>
<td>149909</td>
<td>151230</td>
</tr>
</tbody>
</table>

Source: data extracted from Local Data Bank

Poland is a developed country which is EU member from 2004 and since then many projects related to drinking water supply and water treatment were confounded with local and European funds. This investments demand growing work to improve environment protection and local society standard of life.

3 Greening young people employment

Green jobs are central effort to reduce poverty and to achieve equitable, inclusive and sustainable development. This effort begins with education younger generation which in time understands how important environment protection is, sustainable development and decent work which helps society to prosper because of activities in section E of PKD (Journal of Laws, 2004). In agricultural business, social economy philosophy is realized by such understood education of younger generation (Pokrivcak & Toth, 2016; Toth, Lancaric, & Savov, 2016; Toth, Holubek, & Šerences 2016). Sustainable development and decent work which helps society is much safer in realization if the relationship between debt and equity in greening social economy firms is smaller because the financial risk is smaller in that time.

In Table 3 presented numbers for young people transition from education to employment in Poland with increase (14.88 %). These numbers refer to people who commence employment for their first time (BDL 2017). The highest increase of young people undertaking professional activity observed in voivodships: Łódzkie (89.41 %) and Dolnośląskie (24.39 %).

Table 3 Young people participation in labour market

<table>
<thead>
<tr>
<th>Name of voivodship in Poland</th>
<th>Young people transition into their first employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Łódzkie</td>
<td>12 978</td>
</tr>
<tr>
<td>Dolnośląskie</td>
<td>29 170</td>
</tr>
<tr>
<td>Mazowieckie</td>
<td>61 921</td>
</tr>
<tr>
<td>Pomorskie</td>
<td>10 333</td>
</tr>
<tr>
<td>Świętokrzyskie</td>
<td>4 230</td>
</tr>
<tr>
<td>Podkarpackie</td>
<td>8 890</td>
</tr>
<tr>
<td>Lubuskie</td>
<td>4 940</td>
</tr>
<tr>
<td>Zachodniopomorskie</td>
<td>6 127</td>
</tr>
<tr>
<td>Małopolskie</td>
<td>17 789</td>
</tr>
<tr>
<td>Opolskie</td>
<td>3 351</td>
</tr>
<tr>
<td>Podlaskie</td>
<td>4 897</td>
</tr>
<tr>
<td>Lubelskie</td>
<td>7 682</td>
</tr>
</tbody>
</table>
Comparison of employment in E section of PKD (Table 2) which is considered for synonym of green jobs reveals that obviously not all young people can commence employment in this sector. Therefore, the number of offers in green jobs for two voivodships: łódzkie and dolnośląskie were examined in Table 4. The choice of these two voivodships is not only based on significant change presented in Table 3, but also on information provided by Ministry of Family, Labour and Social Policy (MRPiPS 2015), which states that dolnośląskie voivodship had in 2015 the biggest factor of free work places equal 0,71. What is surprising Voivodship Labour Offices [Pol. Wojewódzki Urząd Pracy] rarely use PKD classification as a part of their methodology for labour demand and supply analysis. There are many differences between these offices and they do not cooperate with each other or Ministry of Family, Labour and Social Policy or GUS to provide comprehensive information about exact number of free positions in each of section or group listed in PKD.

### Table 4 Number of demanded green jobs in chosen voivodships in Poland

<table>
<thead>
<tr>
<th>Name of voivodship</th>
<th>Number of demanded work places in E section of PKD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Łódzkie</td>
<td>462</td>
</tr>
<tr>
<td>Dolnośląskie</td>
<td>1081</td>
</tr>
</tbody>
</table>

Sources: Voivodship Labour Offices [Wojewódzkie Urzędy Pracy], [Ministerstwo Rodziny, Pracy i Polityki Społecznej].

From comparison of Table 3 and 4 just for two voivodships it is clear that green jobs can satisfy demand only of tiny percent of young people commencing employment. There is no research indicating how many young graduates start their professional career in section E of PKD in Poland. Based on methodology proposed by Ministry of Family, Labour and Social Policy calculated if green jobs are deficient, balanced or surplus jobs (MRPiPS 2015), as described in section E of PKD and results were presented in Table 5.

### Table 5 Job availability indicator for green jobs in selected voivodships in Poland

<table>
<thead>
<tr>
<th>Name of voivodship</th>
<th>Job availability indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Łódzkie</td>
<td>1,91</td>
</tr>
<tr>
<td>Dolnośląskie</td>
<td>1,51</td>
</tr>
</tbody>
</table>

Sources: Own calculations

The job availability indicator was calculated based on formula:

\[
\frac{B^k}{Q^z} = \frac{\overline{B}^z}{\overline{Q}^z}
\]

where:
- \(\overline{B}^z\) – is average number of registered unemployed from group E of PKD in each year,
$\overline{O}_E$ – is average number of job offers available for people with qualifications to work in group E of PKD jobs in each year.

<table>
<thead>
<tr>
<th>Job status</th>
<th>Job availability indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>deficient</td>
<td>$\frac{B}{\overline{O}} &lt; 0.9$</td>
</tr>
<tr>
<td>balanced</td>
<td>$0.9 \leq \frac{B}{\overline{O}} \leq 1.1$</td>
</tr>
<tr>
<td>surplus</td>
<td>$\frac{B}{\overline{O}}&gt; 1.1$</td>
</tr>
</tbody>
</table>

Source: Voivodship Labour Offices

In 2015 in Dolnyslask voivodship jobs from section E of PKD were balanced group of jobs, whereas in Lodzkie voivodship the same group was surplus (Table 5 and 6). Situation on labour market in many voivodships of Poland is dynamic what shows Table 5, with two different trends observed in green jobs.

4 Corporate social responsibility aspect

Mentioned above greening young people’s employment can be helpful to define what the Corporate Social Responsibility (CSR) is. Modern companies trying to thrive take into consideration of two aspects human resources management and company public image. To make it clear, CSR is a kind of management strategy in accordance with enterprises in their daily operations are taking into consideration social interest, environmental aspects and relations with different stakeholders, especially with employees. To be socially responsible means to invest in human resources, environmental protection, relations with company surroundings and putting up about such actions. Those things lead enterprise to competitiveness, increase and formulate balanced social and economic development.

Corporate Social Responsibility is about making as much money as possible while conforming to the basic rules of society, both those embodied in law and those included in ethical custom (Rutkowska-Podołowska & Sulich, 2016). Many socially responsible firms can achieve reliefs from this particular confidence in several opportunities: becoming an eligible employer for young people, retention of high-quality employees and the enhancement of reputation.

The conceptual evolution of CSR has started when large numbers of companies recognized this strategic business approach which offers them measurable benefits. These benefits are:

- reduce of legal conflicts on complying with regulatory requirements,
- changing relationships all along the chain value, based on trust and doing things right way with suppliers and customers,
- improving working climate, thus increasingly including CSR criteria to make business more competitive,
- building a reputation as a responsible business, linked to increasing market share, maintaining key personnel and directing investors’ confidence towards CSR,
- assuming positive and negative impacts of the company activity as a key question in management decisions, with long-term perspective,
• re-designing processes with CSR green parameters, reducing waste that often simplifies operations and saves money,
• improving relations and implications within local community, given the wide range of opportunities in terms of reputation, positive press and wealth.

These bullet points can be assumed as seven activities for employing strategy for environmental issues. Savings can be achieved simply in such areas related to transport and packaging services as well. Business begins by looking at switching to green electricity and sustainable development as core elements of their future.

5 Conclusion
Young people who gained education and training can find employment thanks to accepted by government program including regional intelligent specializations; however in two analysed regions their situation can be assessed as dynamic. Green jobs belong to balanced group of positions offered by local labour markets. In that way social economy ideas are realized in agroculture economics areas (Pokrivcak & Toth, 2016), (Toth, Lancaric, & Savov, 2016), (Toth, Holubek, & Serences 2016), but in the much more effective realization of social aims there is a need to keeping smaller financial risk reflected by debt to equity relationship.

Green jobs will develop existing sectors of economy and will change labour market in many voivodships in Poland. The demand for new related skills will also rise in most occupations. To meet this challenge, education and training systems will need to supply a well-trained, highly skilled labour force. Therefore, proposed by Ministry of Regional Development plan should be compatible with training and guidance services that steer people towards jobs in growing sectors should focus on skills related to energy efficiency and renewable energy implementation. Putting in place the right training programmes for employees in declining sectors will help Polish economy redeploy workers who are difficult to place. A well-trained and environmentally aware workforce will also be more innovative in improving resource efficiency. To achieve mentioned above as a society, we need comprehensive lifelong learning strategies and training systems that integrate sustainable development and ensure that the right skills are supplied. Moreover, the CSR approach has to wide spread around companies who give employment and educate local societies.

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