Changes in Revenue Structure in Czech Non-profit Organizations during the Financial Crises: Has the Importance of Public Sources Changed?¹

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Abstract

Non-profit institutions are characterized by their multi-source funding. There are numerous publications on this issue, including discussions concerning the public funding impact on their behavior. The situation in (post)transformation countries is specific. The ongoing process of re-definition of the role of the non-profit institutions (NPIs) play and the consequent question of public support have not been studied with the appropriate data. We designed a survey by which we mapped how the amount and structure of the sources of non-profit institutions changed in the Czech context between 2008 and 2013. Our results show that although the average revenue of a non-profit organization within this particular time period increased, the relative importance of public funding did not change. However, there are rather large differences between the subjects of the survey based on industry.

Keywords: non-profit institution, revenue structure, public funding, institutional environment, non-profit sectors

JEL Classification: L31, L38

Introduction

Non-profit institutions (NPIs) funding, and especially the public-private resource mix, is among the key topics of research on the non-profit sector. As the financial resources of non-profit organizations (NPOs) vary a great deal, many significant questions are related to the analysis of those resources.

The topic is closely related not only to the significance of individual resources, the extrusion or stimulation of one source by another, etc., but also to

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the insufficient monitoring of non-profit funding in national statistical systems. The Satellite Account of the Non-profit Institutions² (SANI) is a typical instrument affecting resources and the relationships between them.

Non-profits derive their revenue from several different resources, which can be grouped into three broad categories: (a) fees charged for the provision of goods and services, (b) government, and (c) philanthropic giving and donations.

In a way, the most prominent position in the literature is occupied by analyses of the role and impact of public funding. This topic is historically deeply rooted in economic research; both the positive and negative connotations of public funding have interested and provoked economists since the 1970s. The importance of public funding for non-profit organizations differs in particular countries. In the context of the post-communist Eastern European countries, this issue remains empirically almost completely unexplored. We find no serious scientific efforts to deepen the understanding of the structure of resources and their mutual substitution in this context.³

While trying to classify revenues into particular broad categories, or within particular sectors, we encounter – regarding the Czech environment – partial or fragmented information. Public funding, especially grants (government grants) can be deemed to be very well-monitored (Prouzová and Špalek, 2015); philanthropic, individual, as well as corporate funding are monitored only partially (Kalousová, 2015). As shown in Table 1, the role of public funding for non-profit organizations in the Czech Republic is crucial. (This classification of sources is, to some extent, compatible to that of the Czech SANI.⁴)

Table 1 **NPI Revenue by Source and Country** (in %)

	Fees	Government	Philanthropy	Other		
12-Country Average	43	32	23	2		
Czech Republic	22	65	13			

Source: Salamon et al. (2012).

As for the Czech Republic, an older source (Salamon and Sokolowski, 2004) states that the level of revenues from government sources in 1995 – 2000 stood at 39.4%. These differences may be caused not only by the increasing significance of public funding for non-profit organizations after the year 2000, but also by a different method of calculation which was adopted.⁵

² The Czech Satellite Account of Non-profit Institutions (SANI) operated by the Czech Statistical Office is capable of describing the size and structure of NPI revenues (with respect to public funding).

³ For an extensive overview study of the relevant foreign research, see Lin (2010).

⁴ However, according to SANI, in 2012, overall public funds earmarked for NPI were up to 14 billion CZK, which constituted 31.7% of the total resources for NPIs in the CR.

Based on the above data, one can see that even 25 years after the renewal of the non-profit sector in the Czech Republic, today it is not clear how the different types of resources are important considering the entire spectrum of revenues of Czech non-profit organizations. Are the above-mentioned data available from official sources in accordance with those that the non-profit organizations themselves present? Is it possible to observe changes in the NPI revenue structure in the Czech Republic during the economic downturn in 2008 – 2013? Does this period of economic insecurity cause increased diversification of sources (specifically, decreasing of the share of public resources), or on the contrary to greater dependency on public funds in general? As we know, the non-profit sector is not homogeneous and, above all, its development differs between fields. Is there any difference in the structure of revenues of Czech non-profit organizations by field of activity?

In our analysis presented below, we show that between 2008 and 2013, in general a greater diversification of sources did not occur. With the use of a large scale survey we were able, however, to identify groups of non-profit organizations which show similar characteristics and behavior. The groups, to a certain degree, copy the fields in which organizations operate. The first group consists of *Health and Social Services* NPIs, where the dominance of public revenues is evident. The second group is composed of organizations for which public funding is relatively small and whose revenue structures are more diverse (namely *Culture* and *Sport*). The last group consists of organizations from the areas of *Law and Philanthropy* and *Environment* which, in the monitored time period, experienced the greatest increase in average revenues, which was mainly in the case of *Environment* caused by an increase in public funding.

1. Context – Theoretical Framework

1.1. Non-profit Organizations and their Financial Sources

There are various definitions of private non-profit sector organizations, such as the structural-operational definition (Salamon and Anheier, 1997), the definition based on the system of national accounts (SNA), definitions within SNA (United Nations, 2003), functional definitions (Salamon and Anheier, 1997), specifications regarding the welfare mix (Pestoff, 1992), definitions by means of a legal theory (Hurdík, 2009), etc. We use a definition of non-profit institutions according to

⁵ The above-mentioned revenue of 65% from public funding excludes incomes from clients, which means public contracts and voucher payments, as these resources are not monitored in the Czech Republic. However, this amount is "artificially" increased as it also includes the revenues of public universities, the features of which are very different from those of societies, foundations or other non-profit organizations. Without knowing the exact methodology of the measurements reported in these records, we tend to believe the amount is just under 40% of public funding.

the standards of the European accounting system, whereby a non-profit institution is defined as "a legal or social entity created for the purpose of production of goods or services whose status does not permit them to be a source of income, profit or other financial gains for the units that establish, control or finance them. In practice, their productive activities are bound to generate either surpluses or deficits but any surpluses they happen to make cannot be appropriated by other institutional units" (Commission of the European Communities, 1993, p. 94).

Non-profit Organizations, by the principle of their mission, are financially dependent on external sources. The resources of NPOs can be divided into these main categories: public support, private contributions, and user fees and commercial incomes (Anheier, 2005; Chang and Tuckman in Seaman and Young, 2010). Salamon et al. (2012) state that fees and charges, not philanthropy, represent major sources of NPOs revenues.

Since each type of resource creates an existential reliance, many studies have focused on the phenomenon of diversification of resources and its effect on the functioning of NPOs. The most frequent issue in the context of resource diversification is the question of the acceptance of commercial sources, especially in conditions of temporarily unstable public funding (e.g. Lecy and Van Slyke, 2013). The non-profit literature suggests that increases in public funding in earlier decades set the stage for the large impact of government cuts later on (Kerlin and Pollak, 2011; Kuvíková and Vaceková, 2009).

Many studies have pointed out that revenue diversification can help non-profit organizations to avoid unexpected income loss or mitigate against the failure of certain types of resources, caused by financial crisis or changes in political representation (see Froelich, 1999; Chang and Tuckman, 1996; Macedo and Carlos Pinho, 2006; Carrol and Stater, 2008). Until recently, the dominant trend, therefore, was to consider resource diversification as a desirable strategy by which organizations reduce financial uncertainty and maintain relative autonomy. However, the latest empirical research does not confirm such a conclusion (Frumkin and Keating, 2011; Teasdale, Kerlin and Young, 2013). Recent findings show that when NPOs decide to change their revenue structure by enhancing diversification, their ability to obtain resources may be impaired (cf. López de los Mozos, Rodríguez Duarte and Rodríguez Ruiz, 2016).

Regarding the importance of particular resources for the non-profit sector, two research streams can be identified. Kerlin and Pollak explain that researchers claiming an increase in commercial revenue often use resource dependency theory to explain their findings. According to this theory, organizations depend on outside resources use proactive strategies to deal with environmental constraints (Kerlin and Pollak, 2011). This line of thinking considers commercial activities as an alternative that has come increasingly into play when a major financial source fails.

But there is an alternative approach, which argues that gradual rising costs for non-profits combined with increased competition for private and government dollars may be the reason behind a continuing rise NPOs' commercial activity (Dees, 1998; Weisbrod, 2004). Rather than resource dependency, this line of reasoning is more compatible with institutional theory, which broadly examines the effects of operating environments on organizations (Powell and DiMaggio, 2012). This means that for the sustainability of the organization it is necessary to adapt to the institutional environment in which it operates (Kerlin and Pollak, 2011; Hyánek and Prouzová, 2015).

1.2. Research Objective

The aim of our paper is to find out whether there have been any changes in the revenue structure of particular types of non-profit organizations in the period between 2008 and 2013. We are especially interested in how the relative importance of direct public funding changed within the financial structure of non-profit organizations in the Czech Republic. Did the share of public funding, and variations in it, differ between 2008 and 2013 among NPO operation sectors?

While examining the relations between the volume and importance of particular types of direct financial sources within the total structure of NPO revenues, we defined the following hypotheses:

Hypothesis 1: For Czech non-profit organizations in the period 2008 – 2013, the relative importance or share of public funding decreased and at the same time the importance of other sources in the total revenue structure of organizations increased. We assume that economic insecurity generally leads to greater diversification of resources (i.e., a lower share of public financing).

Justification: The financial crisis and economic downturn caused not only a decrease in private consumption, but also a decline in public spending in various spheres. One of these spheres included non-profit institutions in some sectors (e.g. social services). We thus monitor the period in which there could be weakening of a relatively stable source of financial revenues for non-profit organizations.

Hypothesis 2: The size and direction of the change concerning the relative importance of public funding in the total financial structure of non-profit institutions in the Czech Republic differs according to the sphere of activity. In our second hypothesis we therefore assume that the financial crisis resulted in various revenue strategies for various types of NPOs. This hypothesis implies different non-profit regimes, as well as varying degrees of their development over time.

Justification: Non-profit organizations are far from uniform in their dependence on different funding sources (Young, 2007), and the distribution of non-profit revenue – the percentage of total income derived from different funding

sources – varies with service fields. For example, non-profits in fields such as education are, on average, most heavily dependent on fees, while human services organizations rely mainly on government funding. In accord with the institutional approach which forms the theoretical frame of our analysis, we suppose that the relations we examine will differ according to the sector or sphere of activity. These spheres differ, especially in the fact that they function in different contexts. For instance, the units respond to the different requirements of their environs, they come into contact with various types of clients, etc. For more details on this topic, see eg. Salamon and Anheier (1997); Vakil (1997); Galaskiewicz, Bielefeld and Dowell (2006).

1.3. Data

During our research we used a standardized questionnaire and retrospective method of study (see De Vaus, 2001). We aimed at finding information concerning the volume of total revenue of non-profit organizations from the year 2013 and retrospectively for the year 2008, with a special emphasis on distinguishing between public funding and other (self-generated and private) funding on the one side, and revenue from organizations' main economic activities, including indirect resources, on the other side.

The target population was represented by all the non-profit organizations in the Czech Republic that were active as of December 31, 2013 and which already existed in the year 2008 (totaling 105,522 units).

After eliminating a number of groups of non-profit organizations, in which some basic characteristics of non-profit organizations are absent, we obtained a population of about 80,000 units, out of which for 72,478 it was possible to find a valid contact. Due to the high heterogeneity of non-profit organizations, we decided to divide this basic set into six subgroups according to ICNPO classifications (International Classification of Non-profit Organizations) based on spheres of activity; see United Nations, 2003). Using the method of quota sampling we chose an appropriate number of units in each of these categories to obtain practically comparable groups of organizations. In our sample we had to increase the proportion of the group for some sectors (namely *Culture, Environment*, and *Law*); meanwhile, we had to restrain the representation of other groups (for example, for *Sports* and *Recreation*).

This methodology produced the so-called quasi-representative sample, which means that the representativeness of the sample is not derived from the same probability levels of selection among all units but from non-random unit choice

⁶ We eliminated churches, public universities, hunting communities, political parties, professional associations, chambers of commerce, and housing organizations.

based on the presumption of knowledge of the distribution of particular characteristics in the basic population. For our research purposes the following features of non-profit organizations were decisive: size of organization, age of organization, sphere of activity, legal form, and region. The representativeness of our sample file thus refers to these analyzed features. (The data collection took place from December 2014 to March 2015.)

In total, we obtained information from 656 non-profit organizations. As we wanted to deal with the revenue structure of these organizations, we chose only those non-profits that had nonzero revenue at least in one of the two monitored years. This file includes 246 organizations, or 37% of the organizations from the full sample file, which corresponds to the data in the whole sector of non-profit institutions (CZSO, 2015).⁷ The file structure is described in Table 2.

Table 2 Structure of our File (2013)

2013	Variable	N	%	Mean	Std. dev.	Min	Max
Volunteers (FTE) 246 0.95 0.06 0.00 3.00 Year of origin up to 1994 103 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.9 41.1 41.9 42.0 <t< td=""><td>2013</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	2013						
Year of origin up to 1994 103 41.9 1995 - 2000 79 32.1 2001 - 2004 44 17.9 2005 - 2008 20 8.1 Sector (ICNPO) Culture and Art 24 9.8 Sport 54 22.0 Recreation 73 29.7 Education and Research 6 2.4 Health and Social Services 42 17.1 Environment and Development 27 11.0 Law and Philanthropy 20 8.1 Legal form 25 10.2 Public Benefit Organization 25 10.2 Association organizational unit 107 43.5 Other 13 5.3 Founder 13 5.3 Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3	paid workforce (FTE)	242		5.10	0,84	0.00	99.00
up to 1994 103 41.9 1995 - 2000 79 32.1 2001 - 2004 44 17.9 2005 - 2008 20 8.1 Sector (ICNPO) Culture and Art 24 9.8 Sport 54 22.0 Recreation 73 29.7 Education and Research 6 2.4 Health and Social Services 42 17.1 Environment and Development 27 11.0 Law and Philanthropy 20 8.1 Legal form 25 10.2 Public Benefit Organization 25 10.2 Association organizational unit 107 43.5 Other 13 5.3 Founder 13 5.3 Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 <td< td=""><td>volunteers (FTE)</td><td>246</td><td></td><td>0.95</td><td>0,06</td><td>0.00</td><td>3.00</td></td<>	volunteers (FTE)	246		0.95	0,06	0.00	3.00
1995 - 2000	Year of origin						
2001 - 2004 200	up to 1994	103	41.9				
Sector (ICNPO) Culture and Art	1995 – 2000	79	32.1				
Sector (ICNPO)	2001 - 2004	44	17.9				
Culture and Art 24 9.8 Sport 54 22.0 Recreation 73 29.7 Education and Research 6 2.4 Health and Social Services 42 17.1 Environment and Development 27 11.0 Law and Philanthropy 20 8.1 Legal form 25 10.2 Public Benefit Organization 101 41.1 Association organizational unit 107 43.5 Other 13 5.3 Founder 13 5.3 Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 8 3.3 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	2005 - 2008	20	8.1				
Sport 54 22.0	Sector (ICNPO)						
Recreation	Culture and Art	24	9.8				
Education and Research	Sport	54	22.0				
Health and Social Services	Recreation	73	29.7				
Environment and Development	Education and Research	6	2.4				
Law and Philanthropy 20 8.1 Legal form 25 10.2 Public Benefit Organization 25 10.2 Association 101 41.1 Association organizational unit 107 43.5 Other 13 5.3 Founder 84 34.1 Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 8 3.3 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Health and Social Services	42	17.1				
Legal form 25 10.2 Association 101 41.1 Association organizational unit 107 43.5 Other 13 5.3 Founder 25 13 5.3 Founder 34.1 34.1 34.1 Church, religious organization 13 5.3 3 Other NPI 132 53.7 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Environment and Development	27	11.0				
Public Benefit Organization 25 10.2 Association 101 41.1 Association organizational unit 107 43.5 Other 13 5.3 Founder 25 10.2 13 5.3 Founder 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 8 3.3 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Law and Philanthropy	20	8.1				
Association Association organizational unit Other 101	Legal form						
Association organizational unit	Public Benefit Organization	25	10.2				
Other 13 5.3 Founder Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Association	101	41.1				
Founder Private subject, business company 84 34.1 Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Association organizational unit	107	43.5				
Private subject, business company Church, religious organization Other NPI Public sector (National Government, Regional, Municipal) Other Fundraiser in organization in 2013 No fundraiser Yes, only volunteer Yes, paid fundraiser N/A 3 1.2	Other	13	5.3				
Church, religious organization 13 5.3 Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Founder						
Other NPI 132 53.7 Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Private subject, business company	84	34.1				
Public sector (National Government, Regional, Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Church, religious organization	13	5.3				
Municipal) 8 3.3 Other 9 3.7 Fundraiser in organization in 2013 162 65.9 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Other NPI	132	53.7				
Other 9 3.7 Fundraiser in organization in 2013 162 65.9 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Public sector (National Government, Regional,						
Fundraiser in organization in 2013 No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Municipal)	8	3.3				
No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Other	9	3.7				
No fundraiser 162 65.9 Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2	Fundraiser in organization in 2013						
Yes, only volunteer 38 15.4 Yes, paid fundraiser 43 17.5 N/A 3 1.2		162	65.9				
N/A 3 1.2	Yes, only volunteer	38	15.4				
151 505	Yes, paid fundraiser	43	17.5				
Member of umbrelle organization? 154 70.6	N/A	3	1.2				
Michigel of amorena of Samiyation:	Member of umbrella organization?	154	70.6				

Source: Own research data.

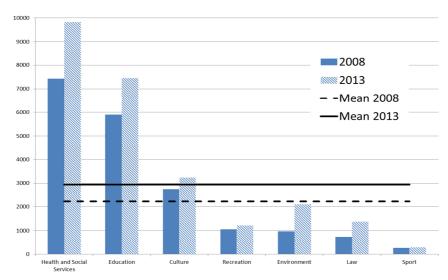
Due to the fact that our original criteria for representation were not satisfied in the case of the subgroup *Education and Research* (six organizations), we therefore excluded this category from further analysis.

2. Results and Discussion

2.1. Total Revenue Volume and the Structure of Czech Non-profit Organizations

The average annual revenue of organizations in both 2008 and 2013, by sector, is shown in Figure 1.

Figure 1 **Average Revenue of Czech NPOs in 2008 and 2013 by Sector** (in thousands)



Source: Own research data.

The highest average revenues in 2013 (in the amount of nearly 10 million CZK per unit) were reported by organizations in the sphere of *Health and Social Services*. In contrast, the lowest average revenues in 2013, in the amount of 267,000 CZK per unit, are reported by organizations in the *Sports* category. There was a growth of average revenues between 2008 and 2013. The largest expansion is found in organizations operating in the field of *Environment* (whose

⁷ Within each sector, the proportion of organizations with nonzero revenues in our file varies – for culture (47%), recreation (39%), health and social services (38%), environment (38%), sport (37%), and law (30%).

revenues more than doubled – growing about 116% – by 2013). A similarly growth of total revenues is evident in organizations in the area of *Law and Philanthropy* (growth of about 85%, or 632,000 CZK). The average revenues of *Sport* organizations grew by only 7% (19,000 CZK).

Although there was an increase in the absolute volume of revenues between 2008 and 2013, the relative importance of particular types of revenues changed. There are quite important shifts between particular items of revenue in these years, as well.

Table 3 **Development of Revenue Structure by Sector** (in %)

	Culture		Sport		Recreation		Health. social		Environ- mental		Law		Total	
	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013	2008	2013
Sales	40.3	45.3	11.7	11.7	5.4	8.0	27.0	33.6	20.5	16.1	6.1	35.2	23.1	29.0
Grants	52.7	48.2	42.4	41.0	70.3	62.2	56.3	57.2	71.8	76.6	71.0	55.8	60.5	59.1
Donations	3.4	2.2	8.3	5.5	2.7	4.2	10.2	5.5	2.0	0.4	3.3	5.7	7.3	4.4
Membership fee	0.5	0.9	23.9	28.2	14.8	17.9	0.0	0.0	4.3	0.6	18.3	1.4	3.5	3.0
Commercial	1.3	0.2	13.0	12.8	1.2	1.7	1.1	1.0	0.7	2.5	1.1	1.3	1.5	1.4
Other	1.8	3.3	0.7	0.9	5.6	5.9	5.3	2.8	0.7	3.7	0.2	0.4	4.2	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own research data.

The results (regardless the sector) generally indicate that grants (public income) represent a dominant and stable financial source (around 60% in both years) for the organizations we monitored. We already know that at least some grants were received by 83% of the organizations that showed a nonzero income (N = 246) during the monitored period. The high proportion of sales and grants (public funding) is evident among the organizations' total revenues (these two items make up 88% of all revenues in 2013 compared to 83.6% in 2008). At the same time, the relative importance of donations decreased (from 7.3% to 4.4%), and it is the same with other income sources (with a one percent decline between 2008 and 2013). Membership fees comprise approximately the same proportion (3.5%) among the revenues of all the monitored organizations.

However, as shown in Table 3, the revenue structure of particular organizations differs significantly by sector. The most diversified revenue structure was reported by organizations in the sector of *Sport*. Besides grants and membership subscription fees, sales and incomes from commercial activities are also of considerable importance in this field of activity.

 $^{^8}$ Differences between average values are statistically significant (according to Analysis of variance (ANOVA) p < 0.001).

Direct public sources in the form of grants seem to be the most important for the sectors of *Environment* (76% in 2013), *Law* (56%), and *Recreation* (62%). Grants play an important but not dominant role for organizations in the sectors of *Sport* and *Culture*. *Sport* organizations compensated for less income from grants (slightly over 40% in both years) and a decrease in donations (from 8.2% to 5.5%) by increasing membership fees (from 23.9% to 28.1%).

There was a significant increase in the proportion of sales revenues (of total revenues) in the sectors of *Health and Social Services* (from 27% in 2008 to 33% in 2013) and *Culture* (from 40% in 2008 to 45% in 2013). This increase may be due to the decrease in donations (within total revenues), especially in the case of *Health and Social Services*. Regarding organizations active in the *Environment* sector, the revenue share from grants significantly increased (from 71% in 2008 to 76.6% in 2013), while the share of sales (from 20% to 16.5%) and especially in membership subscription fees decreased (fees represented 4.2% of total revenue in 2008, whereas in 2013 it was only 0.4%).

A significant decrease in the importance of membership subscription fees occurred also for organizations in the sector of *Law and Philanthropy*. While membership subscription fees represented more than 18% of total revenues in 2008, in 2013 it was only 1.4%. These organizations also recorded an important decrease in income share from grants (from 71% to 55%), which was, to a certain extent, compensated by an increase in sales incomes.

2.2. Factors Explaining the Decrease in the Public Revenues of NPI

While the previous section focused on the analysis of revenue structure in the time period between 2008 and 2013, this section analyzes the dynamics of these changes. As stated earlier, a change in public funding (usually the most important single source for an NPO) should result in a related change in the behavior of an institution, thus influencing the organization's capacity for another revenue type. Which variables change the amount of grant income (specifically a decrease), and to what extent do they explain the change, for a particular non-profit organization? Our analysis is, to a certain extent, limited because the data do not allow us to come to a conclusion regarding the direct impact, in the sense of causality.

To describe the relationship, a logarithmic regression was used, specifically the probit analysis. The decrease in the amount of grant support between 2008 and 2013 is the explained variable; in the process, this variable (like other variables in the model) has a dichotomous character.⁹

⁹ The values are 0 and 1. In the process, the given variable attains the value of one if the given factor manifests (e.g. decreasing grant revenues, a total revenue decrease, staff number decrease, etc.).

Included among the explanatory variables are variables following the development of other revenue types, and variables following the development of overall institutional revenues (in all cases the growth of these revenues between the years of 2008 and 2013 is the studied phenomenon). The other set of explanatory variables is comprised of organization identifiers (including branch; fundraiser's presence in the organization; changes in the number of paid employees; founder of the organization; and whether the organization was established before the year 2000).

Table 4 **Probit Analysis Results**

	Coef.	Std. err.	P > z		
Intercept [No Decrease = 0]	1.340	1.582	0.397		
Fundraiser in year 2013 (yes = 1)	-0.305	0.639	0.633		
Member of an umbrella organization (yes $= 1$)	-0.752	1.008	0.456		
Staff number decrease	2.551**	0.965	0.008		
Health and social services	2.708	3.384	0.424		
Law and Philanthropy	-4.216 **	1.684	0.012		
Culture	0.119	0.995	0.905		
Environment	-2.097	1.560	0.179		
Sport and recreation	2.912**	1.050	0.006		
Sales (growth = 1)	-3.912**	1.515	0.010		
Gifts (growth = 1)	0.083	0.776	0.915		
Membership fees (growth = 1)	-0.681	0.838	0.416		
Commercial activity (growth = 1)	2.780**	1.333	0.037		
Revenues from financial assets (growth = 1)	1.824	1.178	0.122		
Other (growth = 1)	2.289^{*}	1.361	0.093		
Total revenue decrease	1.871	0.871	0.032		
Establishment before year 2000 (yes = 1)	0.530	0.781	0.497		
Founder private person, family (yes $= 1$)	-0.216	0.837	0.797		
Founder other NI (yes = 1)	-4.437 **	1.433	0.002		
Observations (N)			246		
Pseudo R2			0.636		

^{*} p < 0.1; ** p < 0.05. Source: Own research data.

As expected, there is a strong and statistically significant correlation between the decrease in grants and the decrease in total revenues (Beta = 1.871). There are other very significant correlations between grant decreases and the development of other partial NPO revenues. Grant decreases are more likely to occur in tandem with a decrease in sales (Beta = -3.912). It is apparent that grants and sales are complementary types of revenues for many organizations. The reason might be seen in the situation for *Health and Social services*, where both of these expenditure types in essence represent public funding. However, the probability of an institution's decrease in grants is higher in cases where there is a simultaneous revenue growth in commercial activities (Beta = 2.780), growth in revenues from financial assets (Beta = 1.824), or in other revenues (Beta = 2.289).

The econometric analysis confirms that NPO revenue structure is significantly determined by the branch in which its main activity is performed. The relationship between grant revenue development and affiliation with the branch called *Law and Philanthropy* is the most considerable (Beta = -4.216). Non-profit organizations in this sector did not experience a decrease in public revenues. (A similar trend is observed in organizations involved in *Environment* (Beta = -2.097). However, units with their main activities within the sectors of *Health and Social Services* and *Sport* and *Recreation* were more predisposed to a grant revenue decrease. The influence of the sector of *Culture* on a grant revenue decrease is almost zero, which is probably due to their relatively higher level of diversification of revenues (in fact, a balanced proportion of sales and grants).

With regard to other determinants, a grant revenue decrease results in a higher probability of an employee number decrease (Beta = 2.551), which means that the decline in grants is directly linked to the number of staff. However, if another non-profit organization is a founder of a particular institution, the probability of a grant revenue decrease is noticeably lower (Beta = -4.437). The relationship to the presence of a fundraiser in an organization or membership in an umbrella organization has a similar orientation. However, there is a relatively small (and statistically insignificant) influence.

Conclusion

The aim of this paper is to find out how the Czech NPO revenue structure changed between 2008 and 2013. We also investigated whether, or how, the relative importance of public funding changed in the overall financial structure of Czech non-profit organizations according to their field of main activity.

The specific environment of each sector can be characterized by different types and rates of growth in costs, different types of competition, different possibilities for commercial activities, etc. The sectors also differ in the complexity of controlling output and in the process of providing services. All this, as we assumed, affects the behavior of organizations with regard to acquiring particular types of financial resources. As our results show, even during the financial crisis there was an increase in total NPI revenue in the Czech Republic. However, between 2008 and 2013, in general a greater diversification of sources did not occur.

Our conclusions, then, reflect the results of those authors (see for instance Galaskiewicz and Bielefeld, 2003) who point out the considerable heterogeneity of the non-profit sector and to the crucial influence of the institutional environment.

¹⁰ Although it can be supposed that stoppage of a grant from the public budget causes an organization to lower its number of staff, our analysis does not exclude the reverse in causality.

Our analysis has shown that organizational behavior is actually determined by the sphere of activity, or sector, in which a non-profit organization operates. Both descriptive and econometric analyses suggest that even in the Czech non-profit sector it is possible to identify groups ("non-profit sub-sectors") which, to a certain extent, show similar characteristics and behavior. The first group consists of organizations active in the sector of *Health and Social Services*, where the dominant importance of public revenues is evident and it can be assumed, therefore, that public funding is involved in other types of revenues as well (particularly in the area of sales, such as payments for a client).

The second group consists of organizations for which the importance of public funding is relatively small and the revenue structure is more diverse. In particular, this group includes organizations from the sectors of *Culture* and *Sport*, and partially even *Recreation* activities. The third group consists of organizations from the areas of *Law and Philanthropy* and *Environment* which, in the monitored time period, experienced the greatest increase in average revenue, which was mainly caused by an increase in public funding. This fact is especially significant for the area of *Environment*.

It can be assumed that these different results derive from the fact that activities within individual fields are very distinctive. In the case of *Health and Social Services*, this applies to organizations providing public services, which is related to a specific method of financing and often with a specific type of contract with public institutions. Organizations operating in the areas of *Culture*, *Sport*, and *Recreation* pay attention to satisfying interests with regard to the meaning of hobbies and leisure activities. Non-profit organizations working in the sectors of *Environment* and *Law and Philanthropy* are characterized by their advocacy activities directed toward promoting the interests (whether it applies to a "public" interest or various partial interests of a group).

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