Corporate Philanthropy in the Czech and Slovak Republics*

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June 29, 2006

Abstract

This study explores corporate philanthropy in the Czech and Slovak Republics, the determinants of charitable behavior and the underlying motivation. It is the first quantitative study for transition economies, analyzing data from two surveys for 577 and 162 firms over three (2001-2003) and five (2001-2005) years in the Czech Republic, and for 152 firms over four years (2001-2004) in Slovakia. It is the first corporate charity study that distinguishes different channels of support, namely, sponsoring and giving.

The prevailing motivation for corporate charity in both countries is maximization of managers' utility, rather than maximization of profit. The study fails to find difference between motivation for sponsoring and giving, but shows that the firms use these tools differently. It fails to support the usual claim that foreign firms give more than the domestic ones. It identifies significant difference between the two countries: Slovakia lags behind the Czech Republic with lower levels of giving, higher importance of large and international firms, and rather ad-hoc behavior small companies. Importantly, it does not identify any significant decline in giving in Slovakia in 2004, contrary to the expectations resulting from the radical changes in its tax legislation, but, it shows that firms with foreign owners shifted their support from giving to sponsoring. Moreover, while expenditures on philanthropy have been steadily increasing in the Czech Republic, they have remained stable in Slovakia.

^{*}The author would like to thank Randall Filer, Jan Hanousek, Andreas Ortmann, and Richard Steinberg for helpful comments. The study was financially supported by the Global Development Network under the Regional Research Competition Grant, and the Grant Agency of the Czech Republic, grant Nr.402/05/0927.

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1 Introduction

In this work we study corporate philanthropy in the Czech and Slovak Republics, focusing on the financial expenditures of firms on philanthropic activities. The present analysis is, to our best knowledge, the first quantitative study in transition countries. In addition, it compares two transition economies with long common history but rather different recent evolution, among other things in legislation regarding corporate giving, which indeed translates into significant differences in the current philanthropic behavior of firms.

The existing quantitative economic studies of corporate charitable behavior all focused on developed economies, the U.S.A. (e.g., Trost, 2005; Boatsman and Gupta, 1996; Navarro, 1988), Great Britain (Campbell et al., 2002), or their comparison (Brammer and Pavelin, 2005). There are several papers that analyze philanthropic behavior of companies in post-communist countries (e.g., Russia: King and Tchepournyhk, 2004; Ukraine: Ilko, 2004) but none of the studies includes quantitative analysis of data. The major problem of this unsatisfying state of affairs is the lack of data and difficulties related to their collection.

The situation in the Czech and Slovak Republics is symptomatic: even though several studies of corporate giving were conducted in the Slovak Republic (NDS, 2005; Velšic, 2004; Marček and Dluhá, 2002), only one of them asked to specify the donated amounts. That sample, however, is very small (107 responses, for 2001, Marček and Dluhá, 2002). To the best of our knowledge, the only study in the Czech Republic was a survey conducted by Donors Forum¹ in 2004 (DF, 2004). In the present study we use these data (for the Czech Republic) extended with additional data collected on request by market survey company in both, Czech and Slovak Republics.

Moreover, the present study is the first one that distinguishes between sponsoring and giving, two tools corporations may use to financially support philanthropic causes. It is, therefore, the first empirical test of the predictions of theory (Galaskiewicz and Colman, 2006) that the motivation of companies varies across the different 'giving tools' they use.

We base the analysis on the theoretical model developed in Clotfelter (1985) and extended in Navarro (1988). We distinguish two main motives for philanthropy, profit maximization and utility maximization, i.e., giving as a result of agency problems in the company. We extend the model to two periods to allow for long-run returns of giving.

Our results document a significant difference between the two countries, with the Slovak Republic lagging behind the Czech Republic, particularly in giving. We fail to identify any significant general decline in giving in Slovakia in response to the change in legislation in 2004, but we observe that firms with foreign owners shifted their support from giving to sponsoring.

¹Czech nonprofit organization focused on support of foundations, and also corporate philanthropy; www.donorsforum.cz.

In addition, we observe that while philanthropic expenditures in the Czech Republic have increased steadily over the studied period, they have remain stable in Slovakia, suggesting that the change in legislation might have counterbalanced the expected positive trends. While we observe significant differences in companies sponsoring and giving, we fail to support the hypothesis of different motivation for these two tools, maximization of utility being the main motive for both. In addition, we fail to find support for the claim that foreign firms are more generous than the domestic ones (e.g., Bussard et al., 2005; BLF, 2004).

The study is relevant for various actors related to philanthropy: it examines the relevance of changes of the tax legislation on the levels of corporate philanthropy, consequently on the income of charities, which often provide public goods that would otherwise had to be provided by the public agencies. The results are important for the institutions helping to build corporate giving culture in transition economies, suggesting that their work, indeed, makes a difference, and pointing out the new target areas. And, the study is relevant for nonprofits, which by understanding corporate behavior and motivation, may target their donors more effectively.

2 Literature overview

In the first part of this section we focus on the literature providing rationales for corporate giving. A number of theories have been developed to explain the motivation of firms for philanthropy; we briefly introduce the prominent ones but focus on two, the profit and managerial utility maximization.² It is necessary to keep in mind that all these theories have been developed in established economies with long histories of corporate philanthropy; possible effects of transition are summarized in Section 4 below.

2.1 Theoretical studies

Two classes of rationales of corporate giving are distinguished in theory, the economic and organizational. In my point of view, the economic theories focus on the underlying motivation of companies to give, the internal factors. The organizational theories, on the other hand, explore the conditions in the corporate environment that affect giving, the external factors. Literature provides five prominent economic theories: maximization of profit, managerial utility, altruism, corporate social responsibility (CSR), and political theory; and four organizational ones: agency, stakeholder perspective, resource dependence, and institutional theory. The two most often applied theories (e.g., Clotfelter, 1985; Navarro, 1988; Boatsman and Gupta, 1996) are maximization of profit and managerial utility.

²Extensive surveys of corporate giving theories are available in Galaskiewitz and Colman (2006) and Abzug and Webb (1997). This section is based on them.

Profit maximization is a firmly established and often applied theory as corporations are, in the first place, expected to maximize their profits. Therefore, all their activities, including corporate charity, must by definition support this objective. Corporate charity, at the first glance, seems to be only a waste of corporate funds, mitigated slightly by the possibility to deduct donations from taxes³. But, there is an indirect positive effect usually compared to that from advertising, that makes corporate giving profitable: giving is claimed to have positive effect on the public image of the company (i.e., shifting out its demand curve in the long-run). Moreover, giving is claimed to decrease labor costs by increasing employees' loyalty and productivity, and decreasing their turnover.

Maximization of managerial utility is the major competing hypothesis. According to this theory corporate giving results from a principal-agent problem in the company. Managers insufficiently controlled by owners use corporate funds to maximize their utility through perks, charitable giving being one of them.⁴

Both these rationales have been modeled and straight-forward testable hypotheses have been developed. The optimal level of giving in firms maximizing profits does not dependent on the tax rate faced by the corporation. The tax rate, however, matters if managers give to maximize their utility (Clotfelter, 1985; Navarro, 1988; Boatsman and Gupta, 1996; Jankech, 2002).⁵ The problem is, that these predictions were developed under two strong assumptions: optimization is over one period only and giving is fully deductible.

The assumption of full deductibility of giving⁶ is not necessarily valid in our environment. Jankech (2002) proves that the predictions of the basic model remain valid even if we relax this assumption, i.e., the tax rate affects the optimal level of giving only if it was motivated by maximization of utility. He shows that an increase in the deductibility limit (if it was binding) leads to an increase in giving, this result is independent of the underlying motivation for giving (maximization of profit or utility).

Clotfelter (1985) relaxes the second major assumption of the original model, he develops a two-period model allowing for an analysis of long-run payoffs of giving; donations from the first period pay off also in the second period (build goodwill). In this setting the predictions formulated above, and widely used in the empirical literature, do not hold. If a firm maximizes profit over several periods, then tax rates affect the optimal level of donations. It is optimal to inter-temporarily shift giving to periods when it is cheaper (i.e., tax rate is higher). The extent of these shifts depends on the discount factor and depreciation of the accumulated capital; if

³Donations are deducted fully if their volume remains below a deductibility limit, the price of giving is then (1-t), t is the corporate tax rate.

⁴Managers may have various motives for their philanthropic behavior, they may give to gain status or prestige or they may be altruistic. Predictions of this theory do not rely on the underlying motivation.

⁵The model is stated in detail in Section 3.

⁶The limit for tax deductibility is high enough not to be binding.

there is no depreciation it is optimal to give most when it is cheapest and "live" from the payoffs later on. Depreciation of the goodwill depends on the corporate environment, it can be decreased by a corporate foundation which would collect donations in good years and pay them out smoothly over time—ensuring high payoffs over time for a good price.

Three economic theories have not been modeled yet. According to the altruistic theory corporations give because their owners are altruistic and care about worthy causes. This motivation may be further enforced by higher effectiveness of larger gifts (larger gifts to one organization may be more effective and, thus, better serve the purpose of donors (Webb, 1992)), double-taxation of dividends (it is cheaper to give from company's profits), and free-riding (by giving corporate money all shareholders are 'forced' to give proportionally). According to the political theory corporate giving is used to affect the environment companies face (Galaskiewicz and Colman, 2006). Corporate Social Responsibility (CSR) theory has gained significant support particularly recently, according to this theory corporations have a 'duty' towards their stakeholders to behave socially responsibly, corporate giving is one of the tools they may use to fulfill this obligation. Corporations are expected to 'optimize' rather than maximize their profits, taking into considerations a triple bottom line of economic, social, and environmental values (e.g., Bussard et al., 2005; BLF, 2003).

There are no testable hypothesis that would distinguish among these theories, moreover, it seems that these theories may be included into the two major theories explained above. The altruistic theory assumes altruism or utility maximization of owners, which, on the outside cannot be distinguished from the maximization of the managers' utility. Internally, this is possible to distinguish if we can observed the extent of the principal-agent problem in the company, i.e., the extent of control the owners have. The CSR theory could be identified within profit maximization taking into account the shift in corporate environment that strengthens the importance of other stakeholders. This is further supported by the fact that CSR behavior shifts from a competitive advantage to a must in many established economies (e.g., Brammer and Pavelin, 2005). The political theory can be identified within both main explanations, depending on the motivation for the change in the environment, it may be to maximize profits or utility of managers or owners.

Organizational theories add to the economic ones by analyzing the specifics of corporate environment. Somewhat simplifyingly, these theories suggest that it is necessary to identify the strongest stakeholders and examine their impact on corporate behavior, in our case giving to charity. The agency theory corresponds to the utility maximization suggesting the power is in the hands of managers, resource dependence theory suggests powerful suppliers/consumers, and the institutional theory perspective focuses on the impact of increased uncertainty in the environment.

Galaskiewicz and Colman (2006) analyze the different tools corporations use to support/collaborate

with nonprofits (e.g., financial support, donations of products, sponsoring, volunteering, etc.). They suggest that different types of collaboration result from different motives for giving; the names of the types of collaboration indicate the underlying motives: philanthropic, strategic, commercial, and political. Realizing that giving is most often a result of an interplay of several motives (i.e., identification of the main one may be rather cumbersome) it seems optimal to explore the motivation separately for different giving tools.

2.2 Empirical studies

In this section we briefly introduce empirical work on corporate giving focusing on studies that are closest to mine. Extensive surveys may be found in Galaskiewicz and Colman (2006), Clotfelter (1985), or Webb (1992).

To the best of our knowledge there exist two papers that empirically examine the motivation of corporate donors, a cross-sectional analysis by Navarro (1988), and a panel data analysis by Boatsman and Gupta (1996).⁷ Both studies are based on the one-period theoretical model described above (in more detail in Section 3, introduced in Clotfelter (1985) and extended in Navarro (1988) testing the prediction that taxes affect giving only if firms give to maximize managerial utility.

The empirical specifications in these papers differ due to the different data sets and econometric techniques used. Boatsman and Gupta (1996) analyze panel data, 212 firms over 5 years, their basic specification, therefore, includes only tax rate and income (firms specific variables are not necessary due to the fixed effect model used). Navarro (1988) uses cross-sectional data, 249 Fortune 1000 firms from the period 1976-1982. His specification therefore includes also firm specific variables, such as, labor intensity, free riding (ability to rely on others' giving), debt-equity ratio, change in dividends, or salaries of executives.

The results from Navarro (1988) support the hypothesis that giving is a form of advertising motivated mainly by profit maximization.⁸ He also shows that the effect of giving on the community (environment) serves as a quasi-fringe benefit to employees and giving is lower due to free riding (i.e., if there are many firms in the community they tend to give less). Boatsman and Gupta (1996) provide results from a fixed effects regression (which proved to be the best in comparison to pooled ordinary least squares and random effects model). Tax rate in their work has negative effect on giving, suggesting that managerial utility plays a role in giving decision, in addition, the budget constraint is binding. Income has a very small positive effect

⁷Other papers on corporate giving explore different topics, e.g., main factors that influence on giving (e.g., Webb, 1992; Seifert et al., 2003; Brammer and Pavelin, 2005) or the impact of corporate charity (e.g., Chang, 2003).

⁸Tax rate is significant with a minor impact only in one specification offering only a weak support for maximization of utility.

3 Theoretical model

The model used in this work is an extension of Clotfelter (1985) allowing for long-run payoffs of giving not only for profit but also utility maximization motive. Similar to Clotfelter (1985), we assume that the company has fixed budget available for giving in both periods, G_0 , it is only possible to shift donations between the periods. Thus, company's choice of giving in one period, without loss of generality say in the first one, G_1 , determines its giving in the second one, $G_2 = G_0 - G_1$.

If the firm maximizes profit:

$$\max_{P_1, P_2, G_1} \pi = (1 - t_1)(P_1 Q[P_1, G_1] - C[Q[P_1, G_1]] - G_1) + \delta(1 - t_2)(P_2 Q[P_2, G_0] - C[Q[P_2, G_0]] - G_2).$$

The company maximizes after tax profit, t_1, t_2 are the tax rates in the respective periods, δ is the discount factor for income from the second period. P_1, P_2 are prices of the good in the two periods, set by the company. Q[P,G] is the demand function; it decreases in price, $Q_P < 0$, and increases in giving, $Q_G > 0$. We assume decreasing marginal returns of giving, $Q_G G < 0$. C[Q] denotes the total cost of production, it increases in the amount produced, $C_Q > 0$. Giving increases costs through its effect (positive) on demand for the good. Maximization of profit with respect to G_1 gives the following first order condition:

$$(1 - t_1)(Q_G[P_1, G_1](P_1 - C_Q) - 1) + \delta(1 - t_2)(Q_G[P_2, G_0](P_2 - C_Q) + 1) = 0$$

We see that the optimal level of giving depends on the tax rates. The impact of the changes in the tax rates is derived from the first order condition, which implicitly defines the optimal level of donation.

$$\begin{split} \frac{\delta G_1}{\delta t_1} &= \frac{Q_G[P_1,G_1](P_1-C_Q)-1}{(1-t_1)Q_{GG}[P_1,G_1](P_1-C_Q)+\delta(1-t_2)Q_{GG}[P_2,G_0](P_2-C_Q)} \\ \frac{\delta G_1}{\delta t_2} &= \frac{\delta Q_G[P_1,G_1](P_1-C_Q)+1}{(1-t_1)Q_{GG}[P_1,G_1](P_1-C_Q)+\delta(1-t_2)Q_{GG}[P_2,G_0](P_2-C_Q)} \end{split}$$

⁹The fact that the budget is fixed for two periods does not mean that there cannot be factors influencing its size. Namely, different companies (in terms of ownership, industry, etc., have different budgets, but the nature of inter-temporal shifts remains similar.

¹⁰We take the approach used in Navarro (1988), which assumes that demand is determined by the choice of price and giving.

¹¹In the model developed in Navarro (1988) giving had also negative effect on cost, it decreased costs by improving the environment. For example, giving could improve the working conditions of employees, which would increase their productivity and decrease costs of production. For simplicity we omit this effect in the present model.

The impact of changes in the rates depends on the level of production, prices, and depreciation, δ . High depreciation, low δ , decreases the impact of changes in the rates (more so for the second period rate). Thus, the impact of tax changes shall be strongest for companies with foundations which are able to move the donations between the periods at low costs. Typically an increase in t_1 induces higher giving in the first period, as it decreases its price (the denominator and the numerator in the expression are negative). Correspondingly, an increase in t_2 induces a decrease in the first period giving, because it relatively increases its price.

In the utility maximization, we assume the utility of managers depends on both, the level of giving and profitability of the company. Specifically, we assume utility as a convex combination of giving and profit, $U(G,\pi) = \alpha G + (1-\alpha)\pi$. Similarly as above, we assume that managers maximize their utility over two periods, but we assume that they derive utility from the current period giving only (i.e., the fact that giving builds goodwill does not increase mangers' utility). The optimization problem under the maximization of managerial utility looks as follows, π is as defined above:

$$\max_{P_1, P_2, G_1} U_0[G, \pi];$$

$$U_0[G, \pi] = U_1 + \delta U_2 = \alpha G_1 + (1 - \alpha)\pi_1 + \delta(\alpha G_2 + (1 - \alpha)\pi_2)$$

Maximization of utility with respect to G_1 determines the optimal level of giving in the first (due to the fixed budget also in the second) period. The optimal donation is higher than in profit maximization because in addition to the effect on profit giving increases utility of managers.

$$(1 - t_1)(Q_G[P_1, G_1](P_1 - C_Q) - 1) + \delta(1 - t_2)(Q_G[P_2, G_0](P_2 - C_Q) + 1) = -\frac{\alpha(1 - \delta)}{1 - \alpha}$$

The optimal level of giving again depends on the tax rates, but the effect is diminished because it is through their effect on profit only. Thus, the impact of the changes in the rates is exactly the same as it was in the case of profit maximization, but it affects the final decision of a manager only to the extent to what he cares about profits of the company, $1 - \alpha$. In summary, the impact of changes in the tax rates will be smaller under maximization of utility. The extent depends on the preferences of managers, α ; if the manager cares only for the level of donation, then the tax rates (and changes in them) would not affect his giving at all.

4 Corporate giving in transition – the Czech and Slovak Republics

In this section we focus on the specifics of the environment in transition economies, the differences to the developed economies. These are, in line with organizational theories (Section 2.1), expected to affect philanthropic behavior of corporations.¹² Even though in the periods we analyze (2001-2005 for CR, 2001-2004 for SR), both the Czech Republic and the Slovak Republic can be considered established and stable market economies (CERGE EI, 2002, 2004; IVO, 2002), we identify several differences that may have an effect on corporate philanthropic behavior. We summarize them in two categories: market environment and economic conditions, and missing tradition of corporate giving. The conditions in the two analyzed countries are similar, but there are several differences (e.g., the existence of tax assignation in Slovakia), which we will emphasize in the text below.

The market environment in transition economies is not developed to the similar extent as markets in developed economies. This is due to its shorter history and rather unstable evolutions—these markets have experienced significant changes in short time periods. This resulted in significant uncertainty, particularly in the early years of transition, and continued low transparency and high levels of corruption (Hanousek et al., 2005; Lizal and Kocenda, 2002; CERGE EI, 2002, 2004). The corruption perception index in both countries remains very high, it was 4.3¹³ in both countries in 2005 (47-50th place, together with Greece and Namibia, among 159 countries, www.transparency.com). The market uncertainty was further enforced by an unstable and often ineffective and inefficient legal environment: the income tax law in the Czech Republic was amended 43 times in 10 years, steadily increasing in complexity and number of exceptions (CERGE-EI, 2002). Legislation in the Slovak Republic continued to resemble that in the CR (e.g., Lizal and Kocenda, 2002); problems with complexity and frequent changes were present as well (MFSR, 2003; Moore, 2005), even though at least the legislation regarding corporate giving was rather simple (see Section 4.1).

Market uncertainty in Slovakia was higher than in the CR due to political instability (marked by lack of transparency, corruption, and politically motivated decisions) until 1998. The situation started to improve after the change in the government in 1998, nevertheless, many of the problems pertained, though their intensity decreased significantly (IVO, 2002). Many important changes occurred in the consequent election period (specifically, in 2003-2004): reforms of the tax legislation, health care, and pension system. These had positive impact on transparency and significantly simplified tax legislation.

The underdevelopment of market environment in transition is expected to have negative effect on corporate charity. The uncertainty and low transparency of environment forces firms to behave with more caution and spend funds on the operation of the company rather than

¹²We want to emphasize that we focus on the differences to the developed economies, the U.S.A. and western European countries. We realize that these differences are even stronger in countries to the East of Slovakia, further strengthening our arguments, as suggested in Ilko (2004) for Ukraine, or King and Tchepournyhk (2004) for Russia.

 $^{^{13}10}$ point scale, 10 being the best.

spending them on charity.

Economic conditions are another important determinant of corporate charity.¹⁴ The unfavorable economic conditions are often used to explain the lower levels of giving in post-communist countries (Kivilo, 2005; Ilko, 2004; King and Tchepournyhk, 2004; Wygnanski, 2004; Brooks, 2002, Marček and Dluhá, 2002). Fidrmuc and Gerxhani (2005) show that unfavorable economic conditions account also for the low stock of social capital in transition economies (measured by civic participation and access to social networks). However, both the CR and the SR have experienced economic growth in the periods under consideration, ¹⁵ suggesting a parallel growth in corporate philanthropy.

Another important distinguishing feature of transition countries with expected negative impact on corporate philanthropy is the missing tradition of philanthropy and corporate social responsibility (CSR). The CSR concept started to gain on popularity rather recently. It is strongly advertised by the International Business Leaders Forum, a nonprofit organization with national branches in both countries. The first BLF was established in 1992 in then still common Czechoslovakia, after the split in 1993 it continued its operation in the Czech Republic (www.blf.cz). The Slovak BLF came to existence only recently, in spring 2004 (www.blf.sk). The number of companies which understand and implement the concept of CSR remains low in both countries (CR: BLF, 2004; SR: WB, 2004). The low involvement in CSR is further enforced by the ignorance by public which, therefore, does not exert sufficient pressure on the companies to get involved (BLF SR, 2005).

The inefficient operation (or at least a perception of such) and unprofessional behavior of nonprofits, caused to some extent by their short histories¹⁷ and reliance on volunteers rather than professional employees, further hinders cooperation between the corporate sphere and nonprofits (Marček and Dluhá, 2002). Attempts to enforce cooperation among organizations in the two sectors (supported by nonprofits such as PANET (SR), or Donors Forum (CR)) have been strengthened after the accession to the EU in May 2004 via its regional programs focused on cooperation among three sectors: public, for-profit, and non-profit (Bussard et al., 2005; Dluhá and Marček, 2003; DF, 2004).

The last difference we discuss concerns only Slovakia, the tax assignation.¹⁸ Tax assignation for physical persons, i.e., an opportunity to assign a fraction of one's paid income taxes to a

¹⁴Corporate giving is observed to remain a relatively stable fraction of before tax profits in the U.S.A. (Clotfelter, 1985; Galaskiewicz and Colman, 2006).

¹⁵www.oecd.org

¹⁶Even if the companies involve in CSR, main focus is on the internal issues. Typical priorities are care for employees, transparency, and environmental protection. Corporate giving lags behind (BLF, 2004; WB, 2004).

¹⁷Most of the nonprofit organizations in transition countries have been established after the fall of communism, there are only few with longer tradition, e.g., the Red Cross or amateur sports organizations (see e.g., Fric, 1999).

¹⁸There have been attempts to introduce tax assignation in the Czech Republic, but they have not been successful yet (www.rozhodni.cz).

particular purpose, usually charitable or publicly beneficial, was introduced in 2000 to become effective in 2002.¹⁹ The fraction that could be assigned was set to 1%. The scheme was extended to corporations in 2003, the extension was proposed by the government after it rejected nonprofits' request to distribute a fraction of income from privatization (as was done in the CR). While tax assignation for physical persons exists in several other, mostly transition, economies,²⁰ tax assignation for corporations is unique. The fraction that may be assigned increased to 2% in 2004 for both corporations and physical persons.

Tax assignation represents an additional source of funds for nonprofits²¹ and we include it, to certain extent, in this study even though it is not philanthropy in its true sense. Corporations that assign do not give their own resources, they only distribute a fraction of state funds. Nevertheless, assignation requires that the firm makes a decision and shows some interest in the organization it supports. Firms, therefore, usually consider assignation a form of philanthropy.²²

4.1 The relevant legislation

In this section we summarize the legislation that governs corporate philanthropy. Legislation in the Czech and Slovak Republics has been very similar until recently (e.g., Lizal and Kocenda, 2002) including with respect to corporate philanthropy. The major changes took place in 2004 in Slovakia. In this section we distinguish tree different tools/ways, with different tax treatment, corporations may use to support nonprofit organizations: sponsoring, giving, and tax assignation (in the SR only).

Sponsoring, governed by a contract about sponsoring, is often compared to advertising. Expenditures on sponsoring enter books as costs, decreasing taxable income without further restrictions. Thus, corporate tax rate is the only factor that influences the amounts spent on sponsoring. We observe a price effect, increasing tax rates decreases price of sponsoring. On the other side, the income from sponsoring represents commercial income for the receiving organizations, which has to be taxed.²³

Giving, governed by a donation contract, denotes financial donations and donations of

¹⁹The law became effective two years later because the government expected a decline in the budget caused by a significant decrease in corporate tax rate in the year 2001.

²⁰Tax assignation of physical persons exists, for example, in Hungary (where it was first introduced) or Poland (www.onepercent.hu).

²¹Actually, tax assignation represents a significant additional source of income, in 2004 corporations assigned 570 million Sk, 92% of the total amount they could have assigned. In addition, 276 million Sk were assigned by physical persons. (SNSC, 2005)

²²According to a survey performed in 2005 84% of companies considered assignation a form of philanthropy (NDS, 2005).

²³NPOs in the Czech Republic may deduct 30% of their income from their taxable income, or 300,000 Czk (if 30% is less), maximum possible deduction is 1,000,000 Czk. The limit in the SR is 300,000 Sk.

products and services. Expenditures on giving represent an after-tax expenditure, they are tax deductible to some extent. Therefore, for giving is relevant not only the corporate income tax rate, as in sponsoring above, but also the limit on deductibility of donations. The limits vary across countries. Their evolution in the CR and SR is summarized in Table 1. The legislation in the Czech Republic has become complex, with many additional exceptions and changes in the limit in the last four years.²⁴ The limit in Slovakia has been stable at 2% of the taxable income²⁵ until 2004, when new legislation abolished the deductibility of donations.²⁶

Table 1: Tax Legislation

Czech Republic		Slovak Republic	
Limit on tax-deductibility			
2% of tax-base		2% of tax-base	
5% (if natural disaster causes)			
10% for 2002-2003 (floods)		Since 2004 – no deductibility	
Corporate tax rate			
Until 2004	31%	2000 - 2001	29%
2004	28%	2002 - 2003	25%
2005	26%	2004	19%
2006 and later	24%		
Tax assignation			
		since 2003	2%

Tax assignation, which exists in the Slovak Republic only, allows corporations (and physical persons) to assign a fraction of their taxes to particular purposes, namely, to listed publicly beneficial companies, most often nonprofit organizations. The assigned funds belong to state with the government delegating the decision about how to distribute the assigned funds (collected taxes) to tax payers if they choose to.

 $^{^{24}}$ Firms in the Czech Republic may deduct value of donations to listed causes up to 2% of their tax base, the limit is moved to 5% if the (additional) donations support natural disaster causes. In 2002 and 2003 the limit was shifted to 10% due to floods in 2002 (the 5% in addition had to be in support of the flooded areas). Minimum donation that can be deducted is 2,000 Czk. (The Act on Income Taxes No. 586/1992 Coll. in the wording of its future amendments.)

²⁵In both countries donations had to be deducted in the year they were given (different from the U.S.A. with the possibility to carry forward donations above the limit). State owned companies did not have the right to deduct any gifts.

²⁶The Act on Income Taxes No. 595/2003 Coll.

4.2 Hypotheses

The environment in transition economies does not have an effect of the design and qualitative predictions of the model (Section 3). Therefore, the predictions regarding the effects of corporate tax rate remain valid. But, transition has effect on the quantitative predictions. In summary, we expect that the impact of giving on the demand function Q[G] > 0 is lower, as consumers still do care more about price than the philanthropic behavior of the producer. Similarly, the utility 'payoffs' from giving to managers are lower (due to the lower appreciation of philanthropic behavior in the society), i.e., managers gain more utility from other perks than from giving. Both these effects decrease the level of corporate philanthropy. In this section we further distinguish the possible effects of transition and formulate hypothesis.

As in the discussion of theoretical rationales (Section 2.1), we divide our hypotheses into two groups: economic and organizational. First, we test the two main competing economic theories: maximization of profit and managerial utility. In line with Galaskiewicz and Colman (2006), we take into consideration possible differences in motivation behind different philanthropic tools corporations use, distinguishing sponsoring, giving, and, in the SR, tax assignation. Second, we test several predictions from the organizational theories. In particular, we explore the impact of location, and ownership structure on philanthropy.

Economic theories

We expect profit maximization to be the main motivation for firms in transition economies, also regarding their philanthropic behavior. We expect such behavior in result of the market uncertainty which is likely to foster the incentives of firms to survive. It may, to some extent, also affect the behavior of managers, who may want to secure their jobs by securing the existence of the corporation they work for. We assume that firms maximize their profits over several periods, i.e., they take into account that their philanthropic behavior brings payoffs in the long-run.²⁷ Thus, we expect that managerial utility plays only a minor role.

Hypothesis 1: We expect profit maximization to be the main motive for corporate charity. Thus, we expect that tax rates play significant role in the giving decision.²⁸

We expect to observe significant differences between sponsoring and giving. We expect different motivation for sponsoring and giving due to their different tax treatment. Profit motivation is expected to be stronger for sponsoring, which exhibits more favorable tax treatment.

²⁷This assumption is expected to hold both, in transition and developed economies.

²⁸The existing studies of corporate philanthropy in the U.S.A. use two measures of the tax rate, average and marginal. The corporate tax rates in Czech and Slovak Republics are not progressive, but they have decreased in the past years, with some changes in the periods under consideration here. we expect that the differences influence corporate behavior in a similar way as the progressive system in the U.S.A.

The difference is expected to be stronger in Slovakia, because of the lower limit on deductibility of donations.

Hypothesis 2: We expect that profit maximization is stronger motive for sponsoring than for giving. Thus, we expect stronger impact of the tax rate on sponsoring.

We assume that firms optimize their (philanthropic) behavior over several periods. Thus, we expect that they inter-temporarily shift their spending to years when it is cheaper, i.e., tax rate is higher. The motivation to shift giving to periods with higher taxes is strengthened by incentives to evade taxes, a rather popular activity in both countries under consideration (Hanousek and Palda, 2002). We expect to observe inter-temporal shifts of donations to the earlier periods in both countries because of the declines in the tax rates during the period under consideration. Firms were able to strategically shift their donations as the decreases in the rates were planned and announced in advance. Changes in the Czech Republic were milder than those in SR, thus, we expect lower impact. The most significant changes occurred in Slovakia in 2004, with the new legislation significantly decreasing the tax rate (25% to 19%), abolished deductibility of donations, and introduced assignations. We, therefore, expect this change to have the most significant negative effect.

Hypothesis 3: Corporate philanthropy in both countries decreased due to intertemporal shifts to (earlier) periods when it was cheaper. We expect the effect to be stronger in Slovakia, particularly the change between 2003 and 2004.

Organizational theories

In this section we focus on the influence of the external factors on corporate philanthropy. As suggested by the organizational theories we explore the stakeholders with a potential to influence the behavior of the corporations.

Size of the company is the typical factor influencing spending on philanthropy. This is natural, as large companies have more funds available, thus, in absolute amounts spend more also on charity.

Hypothesis 4: Big companies are more active in philanthropy than the medium and small ones.

We expect that ownership has significant influence on philanthropy. Namely, it is often claimed that foreign owners bring with them the corporate culture from their home country, with established traditions of philanthropy and socially responsible behavior. Thus, foreign owned companies are the leaders in philanthropy (e.g., BLF, 2004; Bussard et al., 2005).

Hypothesis 5: Foreign owned companies are more active in philanthropy than the domestic ones.

One of the biggest and most important stakeholder groups are customers. The extent of their influence on corporate behavior depends on their 'closeness' to the company. The closest relation with their customers have usually firms in services, follow firms in retail, and at the end is manufacturing. The other aspect though is, the size of the group, with firms in retail at the top. Thus, we expect that firms in manufacturing are least active in philanthropy, we do not predict the difference between retail and services. This relationship is expected to be stronger in giving. The influence of customers on sponsoring, which is expected to be more similar to advertising, is expected to be lower, thus, we do not derive any predictions.

Hypothesis 6: Firms in manufacturing give least, followed by firms in retail and services.

Level of operation of firms is another factor potentially influencing their philanthropic behavior. We expect firms at the international level to be more active in philanthropy as they are expected to meet stronger stakeholder groups and operate in different environment, with higher expectations on corporate behavior. We expect these forces to be stronger than the potential influence of stakeholders on the regional firms despite the fact that they are 'closer'. This is caused by the above mentioned relative low interest of public in transition in corporate charity.

Hypothesis 7: Regionally operating firms engage in philanthropy less than international or national ones.

The last factor from the corporate environment we want to analyze is the free riding of firms in philanthropy. According to this hypothesis, firms in areas with many other companies tend to free ride on giving of the others, thus, their engagement is lower (Navarro, 1988). We expect this effect to be strongest in the capitals, Prague and Bratislava. This is further enforced by the relative anonymity of relations in large cities, making building of relationships and cooperation more difficult.

Hypothesis 8: Firms in the capital give less than firms in other regions.

5 Model and methodology

5.1 Empirical model

The empirical model is derived from the theoretical model developed above and extended for the consideration of organizational characteristics. We examine two specifications, one for the amounts spent on sponsoring and one for giving (in the model dentoted generally philanthropy, *Phil*):

$$Phil_{i,t} = \beta_0 + \beta_1 Size_{i,t} + \beta_2 Income_{i,t} + \beta_3 OwnD_i + \beta_4 Capital_i + \beta_5 LopD_i$$

$$+\beta_6 IndD_i + \beta_7 CRII_i + \beta_8 TaxD_i + \beta_9 Year + \mu.$$

$$(1)$$

We use logarithmic transformation of volume variables (of both, the dependent and applicable explanatory variables) to get estimates of elasticities, e.g., the income elasticity of giving. The specifications may be estimated on a merged sample (with both countries) or separately for each country, the choice depends on the similarity of the two countries. The methodology of estimations is discussed below in Section 5.2.

The explanatory variables are:

Size, variable capturing the size of the company, used to normalize the levels of giving (big companies give more in absolute values). Size is measured by one of two variables: Sales, the volume of sales, or NoE, number of employees.

Income, pre-tax profit of the company, represents profitability of the corporation—its 'ability' to give.

TaxD, represents four dummy variables indicating changes in the corporate tax rate. There were two changes in Slovakia (three different tax rates), and two changes in the Czech Republic. Tax dummies are denoted Tax1 SR (year 2001), Tax2 SR (2002-2003), Tax3 SR (2004), Tax1 CR (2001-2003), Tax2 CR (2004), Tax3 CR (2005). Two for each country are included in the regressions, setting the third one a benchmark.

OwnD, dummy variables indicating different ownership structures: foreign, mixed, and domestic. The variables are expected to captures the differences in the philanthropic culture and behavior of domestic and foreign owners.

Capital, dummy variable indicating that firm is located in the capital, Bratislava or Prague. FD, dummy variable distinguishing firms with a foundation or foundation fund. It captures possible strategic philanthropic behavior of a firm, signaling higher engagement in philanthropy.

LopD, categorical variable indicating the level of operation: international, national, and regional. This variable captures the potential power and expectations of company's stakeholders.

IndD, dummy variables indicating different industries: manufacturing, retail, and services. They capture possible differences in reliance on philanthropy across different industries. Industries closer to customers are expected to give more. We use services as the benchmark group.

CR II, dummy variable denoting the additional, second sample for the Czech Republic. Details about the sample are in the data section.

According to the hypothesis formulated above we expect that profit maximization plays major role in motivating corporate charity (H1). Thus, we expect tax rates to have significant effect on philanthropy. We expect the impact of taxes to be stronger in sponsoring than in giving (H2). We expect that firms shifted their giving to periods when it was cheaper, thus, towards the early periods (H3). Therefore, we expect that the sign at the tax dummy for the first period to be positive, for the last period to be negative (if the benchmark is the middle period). In addition, we expect significant negative impact of the change in 2004 in Slovakia, thus, we expect a significant negative sign on the tax rate for 2004 in Slovakia.

With regard to the organizational theories, we expect that big firms give more than the small and medium ones (H4), thus, the expected sign on size is positive. We expect that foreign firms give more than domestic ones (H5), thus, the expected sign on foreign dummy is positive. We expect that firms in manufacturing give least (this does not necessarily hold for sponsoring, H6), thus, the expected sign on manufacturing dummy is negative in giving, we have no expectations in sponsoring. We expect internationally operating firms to be more active in philanthropy (H7), thus, the expected sign on the categorical variable *Level of operation* is negative. Last, we expect firms in capital give least (due to free riding and anonymity of the environment, H8), thus, the expected sign on capital dummy is negative.

5.2 Methodology

We analyze the decision about how much to spend on sponsoring or giving.²⁹ The panel format of data gives us an opportunity to account for the unobservable firm specific effects using either random or fixed effects specification. With random effects we impose a strong restriction that the firm specific effects are uncorrelated with the error term, this assumption is relaxed in the fixed effects specification. The fixed effects, however, do not enable studying the effects of observed firm specific variables (Wooldridge, 2002). Therefore, we compare the two models using Hausmann test (testing the correlation between the error term and the unobservable firm effects) and estimate the appropriate one. In case the correct specification is fixed effects, we estimate an additional model to evaluate the effects of the observable firm characteristics of interest. The specification is a random effects model with residuals from the fixed effects model as a dependent variable, the explanatory variables are the firm specific variables of interest. In this specification, there is no variation in time any longer, all we measure is the 'between' variation across firms.

Typical problem of survey data is sample selection, only firms that participate on philan-

²⁹Data about the amounts assigned are not available.

thropy choose to participate on the survey. We are able to deal with this problem to some extent. Due to the fact that we collected data for both, sponsoring and giving, we have information also on firms that did not give or sponsor.³⁰ Thus, we employ the Heckman's two step procedure (Green, 1993) to account for the potential self-selection of firms. In the first step we estimate the selection equation using probit on the participation (in sponsoring and giving separately) decision of corporation. In the second step we estimate the fixed or random effects specification including the selection parameter λ among the explanatory variables.

The main drawback of the fixed effects model is that it cannot account for the fact that data are in intervals (we estimate the models using the middle points of the reporting intervals). This is possible only in random effects model—an ordered probit model estimated using maximum likelihood.³¹ Nevertheless, we estimate the random effects interval regression for comparison. We also need to account for the simultaneity of the choices in giving and sponsoring. We, therefore, estimate the system also as a seemingly unrelated equations model.

The models explaining the amounts spent on sponsoring or giving exhibit one additional problem—potential endogeneity of profit. As claimed above, if corporations give to maximize profit, then not only is giving determined by the factors in the company but it also affects (maximizes) profit. Thus, including profit among the explanatory variables leads to endogeneity problem that shall be fixed using instrumental variables. Unfortunately, the data we have at our disposal do not provide any potential instruments.³² It is, therefore, not possible to test for endogeneity. In our analysis we include profit among explanatory variables because it is a strong determinant of philanthropic behavior (firms often set their giving expenditures according to the available funds, profit), leaving out this variable would cause an omitted variable bias.³³

6 Data and results

Data were collected using face-to-face interviews by market survey company Median (Median SR, in the SR). These data are the first of its kind in both countries.³⁴ Data for the Czech

³⁰Details about data are in Section 6.

³¹There is not sufficient statistics to estimate conditional fixed effects, the estimates in un-conditional fixed effects are biased (Stata manual).

³²We created an instrument using the profitability of the industry, i.e., average profit of all other companies in the market. However, the number of companies within industry groups was too small (if we wanted to maintain some industry structure). Thus, the variable did not properly instrument for the omitted profit and we did not use it in the analysis further on.

³³We estimated specifications without profit and the effect on other coefficients was negligible, suggesting the endogeneity problem was not severe.

³⁴There have been several studies of corporate philanthropy performed in the Slovak Republic (Marček and Dluhá, 2002; Velšic, 2004; NDS, 2005), but the only study asking for amounts spent (for 2001) was the study

Republic were collected using two surveys: the first sample was collected by the Czech Donors Forum in 2004, it covers 577 firms over three years (2001-2003), with an over-sampling of large and medium-sized firms.³⁵ The second sample was collected in 2006, covering 162 firms over five years (2001-2005), with the focus entirely on large and medium-sized firms.³⁶ The Slovak sample was collected in 2005, covering 152 firms over four years (2001-2004). Here, too, large and medium-sized firms are over-sampled.³⁷ Details about the samples are summarized in Table 2 below.

The focus of our surveys was to obtain quantitative information about corporate philanthropy.³⁸ The collected data include: amounts spent on sponsoring and giving, number of supported entities, supported areas, target groups, and information about the companies (number of employees, industry, geographical area, legal form, level of operation, sales, and income before taxes). Attempts to add more information on the companies failed because of the anonymity they were guaranteed in order to induce participation.

The collected data are a contribution to research on corporate charity in transition, to our best knowledge there has not been a similar survey in any post-communist country. It was necessary to collect them using surveys because it is not possible to obtain any hard data.³⁹ The data, therefore, exhibit typical survey data problem including sample selectivity with only the firms that are willing to cooperate. In our case, usually firms that do not contribute do not respond to these questionnaires (Navarro, 1988). A similar pattern of nonresponse applies to small firms and firms contributing small amounts (Helland and Smith, 2003). Though, this problem is partially addressed in our samples because we cover not only giving but also sponsoring (and assignation in the SR).

In addition, we have to take into account several aspects of the samples stemming from the specific of the topic. The major hurdle is the quality of data on expenditures on giving and

by Marček and Dluhá (2002). The sample is rather small hinting low willingness to disclose this information (107 respondents out of 194 participating). The only study in the Czech Republic was the survey performed by Donors Forum, we work with this data.

³⁵A representative sample would include 98% of firms below 50 employees, providing insufficient information on big firms, which are the most important givers. In addition, the sample included a group of big firms specified by Donors Forum, which may bias the results slightly, even though the sample was made representative afterwards.

³⁶It includes only companies with more than 50 employees.

³⁷The first Czech survey was performed by Donors Forum, which required an overview of the whole market. we replicated the survey in both countries to obtain additional data but due to limited resources we focused on large firms only.

³⁸The original survey in the CR included also a qualitative part about strategies and management of philanthropy (DF, 2004). This part was omitted both additional surveys.

³⁹Giving is tax-deductible in the CR but not in the SR, thus, tax-office cannot provide the information. Moreover, not all companies claim deductibility, and tax-office cannot provide individual data. Sponsoring belongs to advertising and PR expenditures, thus, it is not possible to trace the information in accounting books.

sponsoring: corporations are reluctant to publicize any specific data regarding their philanthropic spending (Kivilo, 2004; Múčka, 2005; Marček and Dluhá, 2002). They were, therefore, allowed to report the information in intervals. Unfortunately, the first survey in the CR did not give the respondents an opportunity to provide also exact information if they would. We corrected this in the additional surveys in both countries, where the intervals were offered only when the respondents declined to provide an exact amount. Data on profit before taxes and sales were reported in intervals as well.⁴⁰

A closely related problem concerns the structure of the reporting intervals used, ⁴¹ namely, the first interval (for giving/sponsoring) in the first Czech survey was very broad, merging amounts up to 200,000 Czk. As a result nearly 79% of the reported giving (company/year) fell into this interval. We corrected this in the additional surveys, where we split the first category into four subcategories. Yet another bias may be caused by the fact that they respondents had to report the information retrospectively for the last 3, 4, or 5 years. This we attempted to prevent by announcing the interviews in advance, thus giving the respondents time to prepare.

6.1 Structure of data sets

Structure of the samples is summarized in Table 2. This is the structure of the original data collected; for the analysis we merged the two Czech samples⁴² and weighted it to obtain a sample representative of the population.

Table 3 summarizes aggregate information on corporate philanthropy in both countries: fraction of firms participating on sponsoring/giving (*Participation*), average amount spent on sponsoring/giving (*Amount*),⁴³ average amount reported in common intervals (CI),⁴⁴ sponsoring/giving as a fraction of profits before taxes (average amount divided by profit before tax, *Amount/profit*), and sponsoring/giving as a fraction of profits before taxes computed using CI. Data are weighted to be representative of the population of firms in the country. We tested for the equality of means between the two countries using Wald test, the results are provided in the last column (for both sponsoring and giving).

We observe that despite the fact that there is a significant difference between the expenditures on sponsoring or giving in the Czech Republic when reported in original and common

⁴⁰None of the surveys asked for the exact amounts of sales or PBT as the used intervals were rather narrow, thus, the information is of sufficient quality.

⁴¹Two types of intervals were used, one for giving and sponsoring (9 categories), and a second one for sales and PBT (180 categories).

⁴²We tested that the merge is possible using the Chow test of equality of coefficients.

 $^{^{43}}$ Amounts are in thousands of Czech Crowns, adjusted for inflation with the base in 2001.

⁴⁴Common intervals are used to enable better comparison of the samples. Common intervals are the same in all samples, i.e., they group data from the narrow intervals in the SR and new CR sample to form the big first interval in the original CR sample, and vice-versa for the high categories.

Table 2: Structure of the samples

	CR I	%	CR II	%	SR	%
Number of employees						
Less than 50	310	54	-	-	67	44
50 - 250	194	34	108	67	56	37
250 - 1000	48	8	41	25	25	16
1000 and more	25	4	13	8	4	3
Ownership						
Foreign	38	7	21	13	21	14
Mostly foreign	31	5	10	6	9	6
Mostly domestic	54	9	41	25	26	18
Domestic	454	79	90	56	94	62
Level of operation						
International	90	16	50	31	48	33
National	148	25	65	40	57	38
Regional	339	59	47	29	43	29
Industry						
Manufacturing	248	43	110	68	90	60
Retail	135	23	7	4	27	18
Services	194	34	45	28	33	22
Total	577	100	162	100	152	100

intervals, we do not observe this difference in the share categories (Amount/profit). This is caused by the fact that even though there is a significant decline in the average amount spent due to the merge of the last three categories of the original sample, we these observations are missing in the share categories because of the missing information on profitability. This bias exists only in the largest category (over 50 million Kc), reporting in the other categories does not exhibit significant differences. We, therefore, continue the analysis without the largest donors.

The statistics show that even though firms in Slovakia participate on sponsoring to similar extent as firms in the Czech Republic and they also spend similar fraction of their profits on sponsoring, the participation and spending on giving is significantly lower. Participation on sponsoring and spending as fraction of profits in CI are the only categories in which we fail to reject the null hypothesis of equality. The differences in the data reported in the original and common intervals show the biases caused by the size of the first interval (SR results) and the merge of the last intervals (CR results). Nevertheless, the differences in giving

Table 3: Comparison CR/SR, basic indicators

		Sponsori	ing		Giving	Assignation	
	CR	SR	Wald test	CR	SR	Wald test	SR
Participation	0.56	.60		.61	.42	***	.51
	(.01)	(.03)		(.01)	(.03)		(.04)
Amount (thousand Kc)	471.75	133.41	***	375.85	58.61	***	
	(63.00)	(33.07)		(64.76)	(16.97)		
Amount (CI)	317.13	167.43	***	246.15	101.75	***	
	(24.40)	(32.37)		(18.36)	(16.67)		
Amount/profit	.33	.11	***	.44	.05	***	
	(.04)	(.02)		(.06)	(.01)		
Amount/profit (CI)	.32	.27		.44	.22	***	
	(.04)	(.05)		(.06)	(.05)		

Standard errors are in parentheses. *** denotes significant difference between means in CR and SR at 1%

Notes: Amounts are in thousands of Czech Crowns, adjusted for inflation with base year 2001.

Common intervals (CI) allow better comparison of the samples. They group data from the narrow intervals in the SR and CRII sample to form the big first interval in the original CR sample, and vice-versa for the high categories.

remain significant also with common intervals, Slovakia is always below the CR. Comparison of profitability of companies shows that profits in Slovakia are significant below those in the CR (average profits in CR were 227,431, in SR 14,040 thousand Kc), the difference is mainly driven by less than 1% of firms with very high profits, which is missing in Slovakia. The result is even stronger when we take into account that fraction of firms, which reported profits was higher in Slovakia, including firms with higher profits.⁴⁵ Lower profitability may be one of the reasons of lower levels of giving in Slovakia.

In the Slovak Republic, participation on assignation is slightly (although not significantly) below that in sponsoring but significantly (at the 10% level) above participation in giving. Comparing the fraction to that obtained in un-weighted sample⁴⁶ we observe a downward shift, i.e., small firms participate in assignation less often. This could be caused also by the fact that probability of low (zero) profits among small firms is higher, meaning these firms pay no taxes, thus, have nothing to assign. Similarly, the level of participation on giving is higher in the un-weighted sample (47%), i.e., small firms participate less in giving. We did also a comparison of sponsoring and giving in the years before and after assignations in Slovakia, but we failed to find any significant difference.

 $^{^{45}}$ More than 70% of firms in Slovakia reported their profits, while the fraction is the Czech Republic is only around 50%.

 $^{^{46}}$ Available on request.

We do not have data on the amounts assigned. This question was omitted from the survey as we did not expect any company to assign less than the two percent allowed by the law. Though, we asked whether they used the assignations to the full extent, only 9% of companies responded that they assigned less than 2%.

6.2 Results

6.2.1 Participation

In this section we report results on participation regarding sponsoring, giving, and, in the Slovak Republic, assignation. The sponsoring and giving specifications are used to obtain the estimate of the selection parameter, λ , to correct for selectivity in the specifications regarding expenditures that follow. We tested for equality of coefficients between the two countries, the hypothesis was rejected. Thus, we estimate the model separately for the Czech and the Slovak Republics. We performed a similar test comparing the first and second Czech sample, where we failed to reject the hypothesis of equal coefficients. Therefore, we merge the two samples, but to account for a difference in the levels, 47 we include a dummy variable denoting the second sample, CR II. In both cases we estimated a linear probability model, probit, and a system of seemingly unrelated equations. Here we report, Table 4, only results from the probit, random effects specification, because of its further use for the Heckman's selection correction and the fact that results from the other models do not differ significantly. 48

Some results on participation were summarized in Table 3, we observed that participation of firms on sponsoring was similar in both countries, but Czech firms engaged significantly more often in giving. This offers some support for Hypothesis 2, sponsoring is preferred to giving in Slovakia. We also observed that only approximately half of Slovak firms participate on assignation, taking into account that assignations impose only small costs (administrative) on the company, this is a very low number. This result may be caused by two factors, discussed in more detail below: low profitability of firms (positive profits, thus, positive taxes, are a necessary condition for assignation), and, low interest in the subject.

The results regarding the participation decision summarized in Table 4 offer some support for Hypothesis 4 that large firms are more active in philanthropy. We observe that in both countries size of the company (measured by the number of employees⁴⁹) increases engagement in giving, it, though, has no effect on the engagement in sponsoring. Size has a very strong effect on giving in Slovakia, suggesting that small companies are involved in giving significantly less often than in the Czech Republic. This hints that the philanthropic culture, particularly

⁴⁷The original sample included several large donors.

 $^{^{48}\}mathrm{Results}$ from the other estimations are available on request.

⁴⁹Sales represent an alternative measure of the size of the company. This measure is, however, highly correlated with profitability, in particular in the Czech Republic, we, therefore, prefer to use number of employees.

among the small firms, is not as developed in Slovakia as it is in the Czech Republic. Small firms, though, still sponsor, i.e., they are interested and engage in philanthropy to certain extent. This is supported also by the fact that size has no effect on assignation participation.

Profit has positive impact on philanthropy in the Czech Republic, the effect on both, sponsoring and giving, is very similar. Though, we observe a significant difference in behavior of foreign owned firms in giving (via interaction term *Profit*foreign*, which negates the impact of profit in general, thus, foreign owned firms participate on giving regardless of their profits. Opposite results are observed in Slovakia—while profit has no impact on sponsoring it has significant negative effect on participation in giving, with opposite effect in foreign owned firms. In summary, there is a significant difference between the two countries, while Czech firms engage in philanthropy if they have sufficient resources, Slovak firms seem to participate regardless of their financial situation. However, this result is after we controlled for size of the company, where we observed that in Slovakia small firms participate significantly less than in the CR. The effect on assignation is as expected—profit has strong positive impact on participation. This is understandable, as higher profit translates into higher due taxes, thus, higher amount to be assigned.⁵⁰

While the effect of industry is only minor on participation in sponsoring (Czech firms in retail participate less), there are more differences in giving: firms in retail participate significantly more often, interestingly, in the Czech Republic follow firms in manufacturing, in Slovakia firms in manufacturing and services (omitted category) participate with similar probability. The results support Hypothesis 6 regarding participation of firms in retail but fail to support our expectation of strong participation of firms in services. Firms in services are most active only in sponsoring in the Czech Republic. These results show that even though firms in services are closest to their customers, these customers either do not motivate them to give or their power is too small to be able to do so.

Results regarding the level of operation support Hypothesis 7 in Slovakia, where firms at international level participate significantly more in both, sponsoring and giving. Opposite result is observed in the Czech Republic, where, while there is no difference in sponsoring, local and regional firms participate more in giving. This suggest that Slovak philanthropic culture lags behind that in the Czech Republic, with philanthropy a domain of large and internationally operating firms. In addition, it hints that stakeholders in Slovakia are less powerful, and are not able to induce participation of firms at the local levels.

The effect of ownership is explored in three categories, foreign, mixed, and domestic. We fail to identify any significant differences in participation in sponsoring in both countries but we observe opposite results in the two countries in giving. We find support for Hypothesis 5 for the

⁵⁰This is a general relation, it slightly varies after accounting for deductibles. Though, the proportional differences are expected to remain.

Table 4: Participation, random effects probit

		Spons	soring			Giv	Assignation			
	CR		SR		CR	,	SR		SR	
Number of	0.54		-0.36		0.82	**	1.86	***	-0.29	
employees	(0.36)		(0.55)		(0.36)		(0.53)		(0.50)	
Profit log	0.48	***	0.06		0.45	***	-0.30	**	0.88	***
	(0.09)		(0.14)		(0.09)		(0.14)		(0.18)	
Profit*foreign	-0.44		0.14		-0.68	*	1.35	*	0.24	
	(0.41)		(0.71)		(0.35)		(0.71)		(0.63)	
Manufacturing	-0.44		0.99		0.49	*	0.26		1.38	*
	(0.42)		(0.026)		(0.78)		(0.73)		(0.76)	
Retail	-0.63	*	1.21		1.38	***	1.48	*	0.70	
	(0.38)		(0.80)		(0.37)		(0.77)		(0.78)	
Level of	0.28		-2.05	***	0.87	***	-1.05	***	-1.20	***
operation	(0.29)		(0.43)		(0.26)		(0.40)		(0.45)	
Capital	-1.58	***	0.08		-1.86	***	-2.05	**	0.15	
	(0.52)		(1.04)		(0.52)		(0.92)		(1.06)	
Foreign own	6.15		-7.39		7.67	**	-11.47	*	-3.69	
	(4.39)		(6.24)		(3.81)		(6.07)		(5.28)	
Mixed own	0.81		-0.68		-1.27	***	1.51	**	-2.02	***
	(0.51)		(0.74)		(0.48)		(0.70)		(0.76)	
CR II	-0.45				0.32					
	(0.68)				(0.65)					
Year	0.21	**	-0.01		0.32	***	0.08		0.25	
	(0.09)		(0.41)		(0.09)		(0.36)		(0.33)	
Tax1 CR	-0.18				-0.80					
	(0.66)				(0.67)					
Tax2 CR	0.10				-0.13					
	(0.71)				(0.70)					
Tax1 SR			-0.09				-0.28			
			(0.70)				(0.62)			
Tax3 SR			-0.09				0.25			
			(0.69)				(0.62)			
Const	4.75	***	5.40	***	-6.03	***	0.53		-4.24	
	(1.32)		(1.98)		(1.30)		(1.87)		(2.28)	
No. of obs.	1196		430		1986		430		217	
Log-likelihood	-411.18		-99.57		-427.08		-125.65		79.99	

Standard errors are in parentheses. *** denotes significant difference at 1%, ** at 5%, * at 1%

Tax1 SR denotes the first tax period in Slovakia, 2001, Tax3 SR the last one, 2004. See Table 1 for details.

 $^{{\}rm Tax1}$ CR denotes the first tax period in the CR, 2001-2003, ${\rm Tax2}$ CR, 2004.

Czech Republic—foreign firms engage more in giving. But, Hypothesis 5 is not supported for Slovakia—foreign firms participate least in giving, their engagement in assignation is similar to that of domestic firms. This results is unexpected, it suggests that foreign owned firms have not been established firmly yet, while domestic firms already participate on philanthropy, though, the procedures and quality of this engagement is not observed in these results yet.

We find support for Hypothesis 8, that firms located in the capitals engage significantly less in philanthropy than firms in other regions. This could be because of free riding, as the number of firms in capitals is higher than in other regions⁵¹, or because of the anonymity of the city, which may make it more difficult to establish partnerships.

Finally, we observe strong positive impact of time on participation in the Czech Republic. This trend is missing in Slovakia. We observe no significant impact of the changes in tax legislation, despite the expectations particularly in Slovakia (Hypothesis 3), though the missing growth trend offers partial evidence of the negative effect of these changes.⁵²

6.2.2 Amounts spent on philanthropy

Tables 5 and 6 summarize results from the main specifications, regarding the expenditures on sponsoring and giving.⁵³ Among the explanatory variables we include also Heckman's lambda obtained from the participation equations summarized in previous section. Similar to the previous analysis, we tested for the possibility to merge the samples. According to the results we could merge the two Czech samples, but it was necessary to analyze Slovakia separately. We used the Haumann test to compare the suitability of fixed and random effects, the test rejected the null hypothesis of independence of firm specific effects and error terms in all specifications. Thus, we estimated the fixed effects specification, the results are summarized in Table 5. In order to test the hypotheses regarding firm characteristics we also estimated random effects model on the residuals from the fixed effects regression as described in the methodology section above. Results from the second estimations are summarized in Table 6.⁵⁴

First, we see that the coefficients at Heckman's lambda are insignificant in Slovakia, meaning the selection bias in this case does not present a major hurdle. Therefore, in the decomposition regression below we report results from models without correcting for selection bias.⁵⁵

⁵¹www.czso.cz, www.statistics.sk

⁵²We suspect that corporate philanthropy in Slovakia has similar 'potential' to grow as in the Czech Republic, due to the favorable economic evolution, GDP growth, as well as development of infrastructure supporting corporate philanthropy as summarized in section 4 above.

⁵³We have no information on expenditures on assignations. The reason was that assignations are fixed to be below 2% of due taxes with no incentives to assign less than 2%.

⁵⁴We provide only results from the fixed and random effects, the results from the control treatments (interval regression, seemingly unrelated regression) did not differ significantly and are available on request.

⁵⁵We do not provide results from the fixed effect estimation as they are very similar to the stated ones.

The results from the fixed effects are insignificant even though the explanatory power of the models is rather high (as measured by the $AdjustedR^2$). Thus, the main explanatory power comes from the firm specific characteristics, which we cannot observe in this specification but explore below using random effects.

We do not identify any significant differences neither between giving and sponsoring nor between the two countries. Profit has no effect on the expenditures on philanthropy, thus, if a firm chooses to participate than its spending does not depend on its financial situation. Also, we observe only small positive time trend in sponsoring in the CR. Again, the main growth appears in the participation decision—once a firm decides to participate in philanthropy, it sets a level that remains stable.

Table 5: Expenditures, fixed effects specification with correction for selection bias

		Spons	soring			Giv	ring	
	CR	l .	SR	Ü	CR	t	SR	,
Profit log	-0.004		-0.04		0.07		0.10	
	(0.12)		(0.06)		(0.15)		(0.08)	
Year	0.15	*	0.04		0.07		-0.06	
	(0.07)		(0.1)		(0.08)		(0.18)	
Tax1 CR	0.06				-0.16			
	(0.23)				(0.27)			
Tax2 CR	0.08				-0.002			
	(0.15)				(0.19)			
Tax1 SR			0.17				-0.02	
			(0.2)				(0.36)	
Tax3 SR			-0.09				0.22	
			(0.19)				(0.34)	
Inv. Mills	-0.90	*	-1.43		-1.33	***	-0.52	
	(0.07)		(1.74)		(0.48)		(0.38)	
Const	5.02	***	4.02	***	4.45	***	2.56	***
	(1.35)		(1.14)		(1.22)		(0.59)	
$Adj.R^2$	0.63		0.9		0.61		0.69	
No. of obs.	734		254		856		188	

^{***} denotes significant difference at 1%, ** at 5%, * at 1%

Standard errors are in parentheses.

We fail to support the hypothesis of a difference in the motivation for sponsoring and giving (H1 and H2)—taxes do not have a significant effect on the amounts spent on either. Moreover, observing no significant coefficient at Tax3 SR, a dummy variable capturing the change in legislation in 2004, we fail to support Hypothesis 3 that giving in Slovakia decreased significantly after the change in 2004. The only evidence we have to this end is the missing growth of participation (contrary to the Czech case) described in previous section.

To test the organizational theories' hypotheses we turn to the random effects model estimated on the residuals from the fixed effects regression, Table 6.⁵⁶ When looking at the results it is necessary to keep in mind that we analyze only the information for firms that gave or sponsored (in at least one year) and reported the information on their financial situation.

Table 6: Expenditures, decomposition of firm effects

			Spons	oring		Giving							
	CF	}	SR	2	SR :	2	CF	CR		SR		2	
Number of	0.89	***	0.83	***	0.83	***	0.28	*	0.74	***	0.74	***	
employees	(0.13)		(0.29)		(0.29)		(0.15)		(0.27)		(0.26)		
Manufacturing	0.39	*	0.78		0.77		-0.59	**	-1.19	***	-1.20	***	
	(0.21)		(0.57)		(0.57)		(0.26)		(0.31)		(0.31)		
Retail	0.31		0.87		0.88		-0.73	***	-1.07	***	-1.09	***	
	(0.22)		(0.64)		(0.65)		(0.25)		(0.33)		(0.33)		
Level of	0.12		-0.73	**	-0.73	**	-0.64	***	-0.32	*	-0.32	*	
operation	(0.11)		(0.37)		(0.37)		(0.17)		(0.18)		(0.18)		
Foundation	0.48		-0.77		-0.79		0.66	*	-0.56		-0.57		
	(0.41)		(1.24)		(1.24)		(0.37)		(1.16)		(1.15)		
Capital	0.08		-0.72		-0.72		0.47		1.65	**	1.50	**	
	(0.31)		(0.57)		(0.57)		(0.33)		(0.84)		(0.73)		
Foreign	0.21		3.08	***	2.83	***	-0.52		-2.94	***	-2.60	***	
	(0.34)		(0.66)		(0.66)		(0.41)		(0.92)		(0.74)		
Mixed	-0.10		-0.09		-0.19		0.47	*	-0.83	***	-1.04	***	
	(0.19)		(0.52)		(0.53)		(0.25)		(0.23)		(0.32)		
Foreign 2004					0.87	***					-1.07	(*)	
					(0.001)						(0.67)		
Mixed 2004					0.28	***					0.58		
					(0.10)						(0.51)		
Domestic 2004					-0.14						-0.18		
					(0.13)						(0.17)		
CR II	-2.03	***					-2.36	***					
	(0.24)						(0.26)						
Const	-1.47	***	-0.07		-0.05		1.96		0.76		0.81		
	(0.39)		(1.01)		(1.03)		(0.58)		(0.54)		(0.53)		

Standard errors are in parentheses. *** denotes significant difference at 1%, ** at 5%, * at 1%, (*) at 11%. SR 2 denotes additional specification to examine the impact of the change in 2004 on different ownership forms.

The results support Hypothesis 4 that large companies (measured by *Number of employees*) spend more on philanthropy. The effect is stronger in sponsoring than in giving. The difference in importance of size on giving between the countries is in line with the participation results,

 $^{^{56}}$ The estimations in Slovakia are on residuals from fixed effects regressions without correction for selection bias.

further supporting the hypothesis of lagging development of philanthropic culture in Slovakia.

The impact of ownership differs between the two countries: We do not observe any impact of foreign ownership in the Czech Republic, but we observe opposite significant effect on giving and sponsoring in Slovakia. Thus, firms with foreign owners spend significantly more funds on sponsoring while their spending on giving is significantly below that of domestic firms. This result suggests that foreign owners are more profit oriented, thus, particularly in Slovakia, they prefer sponsoring to giving as a cheaper and simpler tool of support. To further test this hypothesis we added additional explanatory variables to the regression—interaction terms between the year 2004 and ownership, as the change in 2004 was expected to have the strongest effect on philanthropy. Results are listed in the third column of Table 6 in both, sponsoring and giving. The results, indeed, prove the expectations. While domestic firms did not change their behavior significantly in 2004, the foreign owned firms did: they further increased their expenditures on sponsoring and decreased those on giving. This result suggest that sponsoring and giving are substitutes and the profit oriented firms shift towards the cheaper one.

We observe no difference in spending on sponsoring among industries, firms in services spend significantly more on giving than firms in the other two industries. The results are similar in both countries, with bigger differences in Slovakia. Thus, we partially support Hypothesis 6 that firms in services give most (though they give least often), follow firms in retail and manufacturing. The difference between sponsoring and giving may result from their different nature, giving being a result of the stakeholders' pressures and their closeness to the company, sponsoring is aimed at attracting customers, similarly as advertising.

Results support also Hypothesis 7 that regionally operating firms spend less on philanthropy, the only exception is sponsoring in the Czech Republic. The result further supports the hypothesis of slow development of corporate philanthropy in Slovakia. We observe that local firms in the Czech Republic spend less on giving than the international and national companies, however, from the participation results we know that they participate more often. Thus, there is no lack of interest in philanthropy, but rather lack of financial resources.

We fail to support Hypothesis 8 that firms in capital give less. Quite the contrary, we observe that firms in Bratislava spend significantly more funds on giving than firms in other regions. The difference may result from the fact that Bratislava is smaller than Prague, which enables closer relationships with the various stakeholders and demanders of support.

We observe that levels in the second sample are significantly below the levels in the old one. The Chow test of similarity of coefficients failed to reject the hypothesis of no difference, the only difference is in the level captured by CR II. This is possibly caused by the non-random choice of some participants in the original Czech survey, the important donors. Even though the sample was made representative afterwards, inclusion of these major donors in the original sample may cause the upward bias in the level of giving.

To address the problem of the bad structure of the first interval in the original Czech sample we estimated the same specifications using common intervals (where we merged the first intervals in the additional samples to make it comparable to the original Czech structure), in addition, we did not use the middle point of the first interval but the average of the observations obtained from the additional samples. This estimation was used to observe the effect of the merge of the first interval. The results from this control treatment did not vary significantly from the results presented above, with one exception: the coefficients at tax dummies (Tax2 CR, Tax1 SR) were significant.⁵⁷ This difference suggests that merging the intervals may emphasize differences that would otherwise remain unobservable. On the other hand, the large intervals were not created with any theory in mind, thus, the observed difference is likely to be artificial, choosing another merge of intervals would probably lead to different results. Nevertheless, the obtained results offer some supports to the hypothesis that there is a difference in motivation for sponsoring and giving, sponsoring being motivated more strongly by maximization of profits than giving.

6.3 Discussion

In this section we discuss problems with the analysis performed and describe what an ideal data set would look like.

The official source of data on corporate philanthropy is the tax office, which provides information on corporate giving when firms claim deduction on their gifts. There are, however, several problems with such data. Most importantly, these data are usually not available at the individual firm level, but only in aggregated form. But even if it were possible to obtain the individual data, they do not provide a complete picture of corporate philanthropy in a country because they do not include sponsoring, which enters books as costs within broader category of spending on promotion. In addition, small firms, in particular, often do not claim deductions on their donations (Muirhead, 1999).

Therefore, it is necessary to use a survey, again a method with several drawbacks that need to be considered. The first problem arises with sampling—data collecting using surveys are subject to sample selection such that information is only available for firms that agree to participate. This problem can be addressed using methods such as the Heckman two-step procedure (Wooldridge, 2002), which imposes additional restrictions on estimation. Ideally, to ensure identification it is necessary to have additional explanatory variables, otherwise the estimation hinges on the assumption of normality of the distribution and the fact that the selection estimation is nonlinear. On the other hand, it is possible to motivate higher responsiveness using some incentive mechanism, e.g., lottery among the participants, which

⁵⁷Results from this estimation are available on request.

was shown to significantly increase participation rates in a job market study by Ortmann and $\operatorname{Todd}^{.58}$

Quality of the collected data poses another problem. Firms are usually not very forthcoming in reporting the expenditures on sponsoring or giving. Though, this problems seems to be of less importance: it seems that once firms agree to be surveyed on the topic as such they are willing to report the exact amounts as well. In the Slovak sample 63% to 70% of the firms that gave were willing to report the exact amount given (the responsiveness varied over time). The rate was even higher for sponsoring, on average 75% reported also the exact amount. Responsiveness may vary with the survey method used, only 55% reported the amounts in survey reported in Marček & Dluhá (2002).

There remains a significant fraction of firms that prefer to report the information in intervals. Here, it is necessary to get as much information as possible, thus, it is necessary to set the distribution of the reporting intervals so that the survey does reveal some information. Ideally, the survey shall be designed in steps, first, there should be a preliminary search for the distribution of giving, and the intervals shall be designed to best capture the information obtained.⁵⁹

An important problem with the current data set is the promised anonymity of the participating subjects, which makes their later identification (even for research purposes) impossible. Thus, it is necessary to ensure sufficient identification of subjects to enable merge with additional information from other data source. It is possible, to some extent, to substitute this by asking additional questions in the survey, but, it may increase the costs of surveying and, in addition, it is always valuable to be able to compare data from different sources to ensure their higher quality.

7 Conclusion

We have analyzed corporate philanthropic behavior of firms in two transition countries, Czech Republic and Slovakia using survey data of 739 firms in the CR and 152 in Slovakia. The results reveal that despite the long common history of the two countries there are significant differences in the current philanthropic behavior of firms. Namely, firms in the Czech Republic engage in giving more often and give significantly more than firms in Slovakia. In addition, giving in Slovakia is more prevalent among large firms operating at international levels, while in the Czech Republic participate also smaller, regional firms. These differences between the countries seem to be caused by the differences in profitability, further enforced by missing

⁵⁸http://www.mpib-berlin.mpg.de/en/forschung/abc/jobmarket.htm

⁵⁹We implemented this procedure in the additional surveys. We obtained the data for the CR after they have been collected, i.e., we were not able to influence the design of this survey.

'leaders' in Slovakia, i.e., large Slovak firms giving less than large Czech firms. Differences in sponsoring behavior were of smaller extent.

One of the major questions of this study was the impact of taxes: did the decreasing corporate tax rates affect corporate philanthropy? Looking only at the significance of tax variables the answer is no, none of the changes had significant impact on either sponsoring or giving, which also means that corporate philanthropy is motivated mainly by maximization of managerial utility. However, these results need to be considered with caution because changes in tax rates in the Czech Republic were rather minor. In Slovakia, the differences were bigger, in particular the change in 2004. The insignificance of the coefficient, however, may be caused by the fact that the impact was captured in other variable—the time trend. While in the Czech Republic we observe significant growth in both, sponsoring and giving, spending in Slovakia has remained stable, despite significant economic growth and activities in support of corporate philanthropy.

To further evaluate the impact of the tax change in 2004 in Slovakia we analyzed it separately for firms with different ownership. And, indeed, we observed that while the change had no effect on firms with domestic or mixed ownership, it had a significant effect of firms with foreign owners, that shifted their support from giving to sponsoring in 2004. The remaining results on ownership did not support our expectations: we did not find strong support for the hypothesis that firms with foreign capital give or sponsor more. We observed that foreign owned firms in the CR participate more often in giving, but their expenditures are not different from those of other firms. Participation of foreign owned firms in Slovakia is significantly below participation of domestic firms in giving. Their expenditures are higher in sponsoring, but are significantly below spending of domestic firms in giving.

Higher profits increase engagement in philanthropy in the Czech Republic, but they do not have a significant impact on expenditures. In Slovakia, profit has significant impact only on participation in giving, but this effect is negative. The result is unexpected, because we expect firms with higher profits to spend more on charity. Possible expectation is that firms in Slovakia have generally lower profitability than those in the Czech Republic, but the 'pressure' to give remains.

We failed to support our hypothesis regarding higher engagement of firms in services—with the exception of sponsoring in the CR they participate the least. Their expenditures in giving, however, are the highest in both countries. This may result from the fact that profitability of firms in services is the lowest in comparison to the other industries, having negative effect on participation. On the other hand, once they start to engage in philanthropy they, possibly because of their close relationships with stakeholders, give more.

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