

# Corporate Philanthropy in the Czech and Slovak Republics

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## Abstract

We analyze corporate charitable behavior and its motivation in the Czech and Slovak Republics. In our quantitative study we distinguish different channels of support: sponsoring and giving. The results suggest that corporate charity in both countries is predominantly motivated by the maximization of managers' utility, rather than the maximization of profit. We do not find evidence supporting the usual claim that foreign firms give more than domestic ones, but results suggest that foreign firms give to maximize profits more often than domestic ones. The Czech Republic leads in giving over Slovakia, where the importance of large and international firms is higher. No significant decline in giving is found in Slovakia after changes in its tax legislation made giving more expensive.

Keywords: corporate philanthropy, corporate giving, sponsoring, survey data, economic transformation, tax treatment

JEL Codes: D21, D64, F23, G30, L21, M14, P52

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## 1. Introduction

Corporate social responsibility has recently been a hot topic of debate and research focusing on the social behavior of firms. Corporate giving as an important aspect of corporate social responsibility has also gained significant attention in the last decades in mature economies as the levels of giving in mature economies are significant and therefore present a major source of funding for nonprofit organizations. Emerging markets have a relatively small amount of corporate giving, and therefore not much research on the topic has been performed for emerging economies. This is especially the case when one considers quantitative empirical research.<sup>1</sup> In this paper we aim to fill this gap in the empirical literature by providing a quantitative analysis of corporate philanthropy—considered as a still-important component of corporate social responsibility—in two post-transformation European economies.

The motives for philanthropic firm behavior are not necessarily purely altruistic, for they could have very rational roots. In addition to theoretical considerations, there exist empirical studies examining the link between the tax rate and corporate philanthropy. For example, in a U.S. study Navarro (1988) found a very small negative effect of the tax rate, a finding that supports the hypothesis that giving is a form of advertising motivated by the maximization of profit. Further, Boatsman and Gupta (1996) employed panel data and firm-specific variables with a similar dataset and showed that giving serves as a quasi-fringe benefit to employees through its impact on the community or environment, and that giving is lower due to free riding as firms in communities with a high number of firms give less. Thus, they conclude that giving is motivated by the maximization of managerial utility under a binding budget constraint.<sup>2</sup> In our paper we follow part of the existing literature that is linked to the legal framework and tax legislation, using various tax treatments as major factors explaining corporate giving.

From the tax treatment point of view we can identify three major different ways that corporations use to support nonprofit organizations: sponsoring, giving, and tax assignment. Sponsoring is often compared to advertising and it is the cost that decreases taxable income without further restrictions. The extent of sponsoring is therefore affected by the corporate tax rate. Giving can be in a financial or “in-kind” form. It is a cost that is tax-deductible up to a limit. Therefore, the extent

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<sup>1</sup> The vast majority of studies cover the U.S.A. (e.g. Trost, 2005; Boatsman and Gupta, 1996; Navarro, 1988) or the UK (e.g. Campbell et al., 2002; Brammer and Pavelin, 2005).

<sup>2</sup> The possible cause of the opposite results in the two studies is the data and measures used. Navarro (1988) works with cross-sectional data, thus it is possible that there are unobservable firm characteristics that may bias the results. Another bias may be caused by the measurement error in the tax rate: Navarro (1988) uses the average tax rate instead of the marginal tax rate, which is used in theoretical models, and is also used in Boatsman and Gupta (1996).

of giving depends on both the tax rate as well as the tax-deductible limit. Tax assignment, which exists only in a few countries, allows corporations (as well as individuals) to assign a fraction of their taxes to particular purposes, namely, to the publicly listed beneficial organizations that are most often non-profit organizations.

With respect to the above types of corporate philanthropy the problem with the existing empirical studies is that they do not always accurately distinguish between giving and sponsoring and therefore the tax legislation effect is likely to be incorrectly measured. Further, these studies typically cover only one country. In this paper we use data on corporate philanthropy in the Czech and Slovak Republics. We will analyze the effect of introduced taxed policies on corporate behavior. Moreover, we use data on two countries that for more than 70 years shared the same history and exhibit close cultural roots. Until 1993 both countries were part of the former Czechoslovakia, a federation of these two countries. Following their separation in 1993 these countries, which are broadly similar in terms of culture, language, values, ethics, norms, etc., adopted different legislation and tax policies. These settings are close to a natural experiment and allow us to properly identify the effects of the tax rate and tax policies on corporate philanthropy. Since we compare two countries with a long common history but different recent evolutions, the observed (recent) differences in corporate giving tax legislation are expected to identify the differences in the philanthropic behavior of firms. Moreover, in our analysis we are also able to distinguish between sponsoring and giving, two philanthropic channels that have very different tax implications. In other words, we are able to properly identify and test for the importance of tax policies.<sup>3</sup> Last but not least, during the period studied one country (Slovakia) changed its policy regarding tax deductibility and allowed tax assignment, so we can also estimate the effect of this policy change.

The rest of the paper is organized in the following manner. In Section 2 we relate the current literature to the development of corporate philanthropy in the two countries. In Section 3 we describe the theoretical framework to study corporate philanthropy and formulate testable hypotheses. The data are introduced in Section 4. We present our results in Section 5, where we show that the Slovak Republic lags behind the Czech Republic, particularly in corporate giving. Further, we fail to find support for the claim that foreign firms are more generous than domestic ones (e.g., Bussard et al., 2005; BLF CR, 2004). The results about the importance of tax legislation are mixed. Section 6 offers our conclusions.

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<sup>3</sup> This leads to an empirical evaluation of the Galaskiewicz and Colman (2006) hypothesis that the motivation of companies varies across the different giving tools they employ.

## 2. Corporate philanthropy in the Czech and Slovak Republics

This study fills a gap in the existing literature as it is one of the few quantitative analyses of corporate philanthropy in European emerging markets. The few studies dealing with transformation economies (e.g., Russia: King and Tchepournyhk, 2004; Ukraine: Ilko, 2004; NDS, 2005; Velšic, 2004) are all qualitative. The two exceptions are the study by Marček and Dluhá (2002) analyzing the donations of a sample of 107 Slovak firms, and a study conducted in the Czech Republic by Donors Forum (DF, 2004). The latter is an analysis of a survey of corporate giving in the Czech Republic. In the current study, we work with the data from this survey extended with additional data collected for the Czech Republic and Slovakia. During the period 2001–2005, which is the span of our data, both the Czech and Slovak Republics were considered established market economies (CERGE-EI, 2004; IVO, 2002). The label is optimistic with respect to corporate philanthropy, though. Corporate philanthropy in transformation economies has a short history as it started to develop only after the demise of the command economic system. For that reason the business environment still exhibits specific features that may affect the philanthropic behavior of companies and result in different behavior than that observed in developed market economies.

First, the market environment itself is not developed in European emerging markets to the extent observed in developed economies and its evolution has typically been very turbulent. In particular the early years of transition were marked by significant uncertainty, low transparency and high levels of corruption. Problems with transparency and corruption also remain present due to inefficient and complicated legal systems (Estrin et al., 2009; Lízal and Kočenda, 2002; CERGE-EI, 2004).<sup>4</sup> Uncertainty in Slovakia was higher until 1998 due to political instability, marked by a severe lack of transparency, corruption, and politically motivated decisions. Many of these problems remained also after the change of government in 1998, although their intensity decreased significantly (IVO, 2002). A number of important changes improving the Slovak market environment occurred in 2003–2004, namely, reforms of tax legislation, health care, and the pension system.

Countries in transition continue to lag behind their more developed counterparts also in their economic performance, an important determinant of corporate charity.<sup>5</sup> Lower levels of giving in post-

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<sup>4</sup> The corruption perception index in both countries increases very slowly. That means that corruption environment improves slowly as well. In 2008, it was 5.2 for the Czech Republic and 5.0 for the Slovak Republic on a 10 point scale (10 being the least corrupt or corruption-free). This translates into the 45<sup>th</sup> and 52<sup>nd</sup> place, respectively, among 180 countries, according to the Transparency International.

<sup>5</sup> Corporate giving remains a relatively stable fraction of before-tax profits in the U.S.A. (Clotfelter, 1985; Galaskiewicz and Colman, 2006).

communist countries are, indeed, often explained by the unfavorable economic conditions (Kivilo, 2005; Ilko, 2004; King and Tchepournyhk, 2004; Marček and Dluhá, 2002). Fidrmuc and Gerxhani (2005) show that unfavorable economic conditions during transformation account also for the low stock of social capital in post-communist countries, measured by civic participation and access to social networks. Nevertheless, the OECD states that both the Czech and Slovak Republics have experienced significant economic growth in the periods under consideration that might be reason for a parallel growth in corporate philanthropy.

A lack of a tradition of philanthropy is another feature of transition countries that is expected to strongly negatively influence corporate charitable behavior. The development and popularization of corporate social responsibility has been supported by the International Business Leaders Forum (BLF), a nonprofit organization with national branches in both countries: since 1992 in the Czech Republic and since 2004 in Slovakia. Nevertheless, the number of companies understanding and implementing the concept of philanthropy remains low in both countries (CR: BLF CR, 2004; SR: WB, 2004). One of the possible explanations of this low engagement is, according to the Business Leaders Forum for the Slovak Republic (2005), the ignorance of the public causing insufficient pressure on companies to get involved.

Yet another important feature affecting the level of corporate philanthropy is the legal framework. Laws in the Czech and Slovak Republics, including those relevant to corporate philanthropy, were very similar (e.g., Lízal and Kočenda, 2002) until 2004 when there were several major changes in Slovakia. In the short review below, we focus on three different tools that corporations use to support nonprofit organizations: sponsoring, giving, and in Slovakia also tax assignation.

The three forms of corporate support can be distinguished based on their tax treatment. Sponsoring, governed by a contract about sponsoring, is often compared to advertising. Expenditures on sponsoring enter the books as costs, decreasing taxable income without further restrictions. The corporate tax rate is therefore the only legal factor that influences the expenditures on sponsoring. Due to the income effect, increasing the tax rate increases sponsoring, because its price is lower. However, the income from sponsoring is a business income for the receiving organization, and it has to be taxed.

Giving, governed by a donation contract, includes financial donations or “in-kind” donations of products and services. Expenditures on giving typically represent after-tax expenditures that are tax-deductible up to a limit. Therefore, the extent of giving depends not only on the corporate income tax rate, as in sponsoring, but also on the tax-deductible limit. The limits vary across countries, and their

evolution in the Czech Republic and Slovak Republic 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.<sup>6</sup> The limit in Slovakia has been stable, 2% of taxable income, until 2004, when new legislation abolished the deductibility of donations.<sup>7</sup>

Tax assignment exists in Slovakia but not in the Czech Republic. It allows corporations (and physical persons) to assign a fraction of their taxes to particular purposes, namely, to the publicly listed beneficial organizations, most often nonprofit organizations. The assigned funds belong to the state, the government delegates the decision about how to distribute the assigned funds (collected taxes) to the taxpayers if they choose to do so. The tax assignment scheme applies to corporations since 2003 with a 1% cap. In 2004 the fraction that may be assigned increased to 2% for both corporations and physical persons. While tax assignment for physical persons exists in other transition countries,<sup>8</sup> tax assignment for corporations is unique for Slovakia. Tax assignment represents an additional source of funds for nonprofits<sup>9</sup> 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 donate their own resources, they only distribute a fraction of state funds. Nevertheless, firms usually consider assignment a form of philanthropy possibly because assignment requires that the firm makes a decision and shows some interest in the organization it supports.<sup>10</sup>

### **3. Theoretical foundations of corporate giving**

The theoretical framework for corporate giving was initially developed by Clotfelter (1985) and was later extended by Navarro (1988). Boatsman and Gupta (1996) employed it to illustrate the impact of a budget constraint imposed on the manager, and Jankech (2002) used it to account for deductions above the tax deductible limit. The basic model and its extensions predict that the tax rate affects the level of

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<sup>6</sup> The Act on Income Taxes No. 586/1992 Coll. in the wording of its future amendments.

<sup>7</sup> The Act on Income Taxes No. 595/2003 Coll. In 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. Still, we argue that due to the heavy presence of the state in many privatized firms (Hanousek and Kočenda, 2008) these firms in fact possibly provided non-marginal donations.

<sup>8</sup> For example, Hungary, where it was first introduced, or Poland ([www.onepercent.hu](http://www.onepercent.hu)).

<sup>9</sup> Tax assignment is, indeed, a significant additional source of income. In 2004 corporations assigned 570 million SKK, 92% of the total amount they could have assigned. In addition, 276 million SKK were assigned by physical persons. The amount has been increasing steadily ever since, the amount assigned by corporations was nearly 900 million SKK in 2007, with additional 380 million assigned by individuals ([www.rozhodni.sk](http://www.rozhodni.sk)).

<sup>10</sup> Assignment can have some of the positive effects of philanthropy for firms, and therefore should be considered quasi-philanthropy. According to a survey performed in 2005, 84% of companies considered assignment a form of philanthropy (NDS, 2005).

donations if giving is motivated by the maximization of managerial utility, and does not affect the level of donations if the company maximizes profit. If there is a budget constraint imposed on the managers, then the tax rate will have a negative impact when the constraint binds and it will have a positive impact on donations if the constraint does not bind. Jankech (2002) proves that these predictions remain valid also for the case when there is a binding tax deductible limit on donations.

However, the predictions of the model and its extensions hinge on the assumption that the model is one period only, which does not allow accounting for the long-run payoffs of giving: donations given today bring direct payoffs similar to advertising but also build goodwill that pays off in the future. The model of Clotfelter (1985) has been extended by Boatsman and Gupta (1996) in to the two-period model that captures the above long-run effects. However, this two-period model does not allow for the maximization of utility; it illustrates only the profit-maximizing case. In this setting the predictions formulated above and used in all previous empirical studies do not hold. If a firm maximizes profit over several periods, then the tax rate affects the optimal level of giving because it is optimal to shift giving to periods when it is cheaper (i.e., when the tax rate is higher). The extent of these shifts depends on the discount factor and the rate of the depreciation of accumulated capital.

If there is no depreciation it is optimal to give most when it is cheapest and “live” from the payoffs later on. The rate of goodwill depreciation depends on the corporate environment. Corporations may decrease it by establishing a foundation, which would collect donations in the good years and pay them out smoothly over time, ensuring payoffs in later periods for a good price.

In this paper we build on the two-period model of Clotfelter (1985) to allow for long-run payoffs of giving in the utility maximizing case. The theoretical base for our empirical analysis will be a model in which we merge the two main philanthropy motivations by assuming that a manager's utility is a convex combination of giving and after-tax profit. In that sense, the manager chooses donations and pricing to maximize his utility function in the following form:

$$U[p_1, p_2, g_1, g_2] = \alpha(1-t_1)(p_1Q_1[p_1, g_1] - g_1) + (1-\alpha)g_1 + \delta(\alpha(1-t_2)(p_2Q_2[p_2, \beta g_1 + g_2] - g_2) + (1-\alpha)g_2) \quad (1)$$

$$\pi = (1-t) pQ [p, g] - g.$$

Here,  $\pi$  represents the after-tax profit of the company,  $Q[p, g]$  is the demand function,  $p$  is price of the good produced,  $g$  is giving in the given period,  $\alpha$  is the preference of the manager for the maximization

of corporate profit,  $\delta$  is the depreciation,  $\beta$  is the “depreciation” of the goodwill of the donation from the first period.

Profit and utility maximization remain limiting cases. The predictions of this extended model further support Clotfelter’s (1985) prediction that the tax rate matters for the level of donations especially if the company gives to maximize its profits. In summary, the various extensions of the basic theoretical model of corporate giving give mixed predictions regarding the interpretation of the tax rate as an indicator of the motivation for giving. We have therefore decided to base our empirical analysis on this standard model but refrain from the interpretation of the tax rate as the indicator of the motivation for giving.

The empirical model is based on the theoretical model explained above and extended to consider organizational characteristics. We examine two specifications, one for the amount spent on sponsoring and one for giving (denoted in general philanthropy, *Phil*):

$$\begin{aligned}
 Phil_{i,t} = & \beta_0 + \beta_1 Size_{i,t} + \beta_2 IndD_i + \beta_3 LopD_i + \beta_4 Capital_i + \beta_5 OwnD_i \\
 & + \beta_6 FD_i + \beta_7 Year + \beta_8 TaxD_i + \beta_9 CRH_i + \mu .
 \end{aligned}
 \tag{2}$$

The explanatory variables in specification (2) are coded in the following manner: variable *Size* captures the size of the company, which is used to normalize the levels of giving (big companies give more in absolute values). Size is measured by two variables: Sales, the volume of sales and NoE, the number of employees. Dummy variables *IndD* indicate different industries: manufacturing, retail, and services. They capture possible differences in the reliance on philanthropy across different industries. Industries closer to their customers are expected to give more. We use services as the benchmark group. Categorical variable *LopD* indicates the level of operation: international, national, or regional. This variable captures the potential power and expectations of a company's stakeholders. Dummy variable *Capital* indicates firms located in the capitals Bratislava or Prague. Dummy variable *OwnD* indicates different ownership structures: foreign, mixed, or domestic. The variables are expected to capture differences in the philanthropic culture and the behavior of domestic and foreign owners as corporate performance of these firms differs as well (Hanousek, Kočenda and Svejnar, 2007; Bena and Hanousek, 2008). Dummy variable *FD* distinguishes firms with a foundation or a foundation fund. It captures the possible strategic philanthropic behavior of a firm, signaling higher engagement in philanthropy. Categorical variable *Year* captures the possible time trend in giving. Dummy variable *TaxD* represents four dummy variables indicating different corporate tax rates. There were three

different tax rates in Slovakia and three 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), and Tax3 CR (2005). Two for each country are included in the regressions; the third one is set as a benchmark. Dummy variable *CR II* denotes the additional, second sample for the Czech Republic. Finally, we use the logarithmic transformation of the amount variables (the dependent and applicable explanatory variables) to directly obtain estimates of elasticities.

The panel format of the data that we collected and describe in detail in Section 4 allows accounting for unobservable firm-specific effects using either a random or fixed effects specification, REM or FEM (Wooldridge, 2002). We test for the appropriate specification comparing the pooled OLS regression, REM, and FEM. If FEM proves to be the correct specification, we estimate an additional random effects model on the residuals from FEM to evaluate the effects of the observable firm characteristics of interest (Wooldridge, 2003). We employ Heckman's two step procedure to correct the potential self-selection of firms (Green, 1993). For comparison, we estimate the model also using the interval regression, but it is possible only in the REM specification using maximum likelihood.<sup>11</sup> To account for simultaneity in the giving and sponsoring decisions we also estimate a system of seemingly unrelated equations.

### 3.1. Hypotheses

The hypotheses are developed based on the predictions of the theoretical model adjusted to the specifics of transition economies. The lower appreciation of corporate charitable behavior by consumers is captured by the relatively small impact of giving on demand,  $Q_G > 0$ , and similarly small utility “payoffs” to managers, i.e., utility gained from other perks is higher. On the other hand, the uncertain, not transparent environment of transition increases the occurrence of principal-agent problems, giving managers more opportunities to divert funds. The final effect of these factors remains to be tested empirically. In the following account we motivate our hypotheses along with their formulations.

We assume that firms optimize their behavior over several periods and therefore have incentives to inter-temporarily shift their donations to years when it is cheaper, i.e., the tax rate is higher. This behavior is enforced by the motivation to optimize tax dues: firms, particularly in transition, often seek

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<sup>11</sup> There is not sufficient statistics to estimate conditional FEM; the estimates in unconditional fixed effects are biased (Stata manual).

to minimize their tax obligations by avoiding taxes (Hanousek and Palda, 2003 and 2004).<sup>12</sup> The tax rates in both countries declined in the studied period and the changes were announced in advance, hence, firms were able to shift their donations to earlier periods. Changes in the Czech Republic were smaller than those in the Slovak Republic, thus, we expect a lower impact. The most significant changes occurred in Slovakia in 2004, thus we expect this change to have the most significant effect.

*Hypothesis 1:* The tax policy affects charitable behavior, i.e., the tax rate plays a significant role in the giving decision.

Following Galaskiewicz and Coleman (2006) who suggest that different giving tools are motivated differently, we distinguish two philanthropic tools: sponsoring and giving. Each is subject to a different tax treatment. Sponsoring has a more favorable tax treatment than giving, and we therefore expect that the tax rate will have a stronger impact on sponsoring. The tax treatment for giving is more favorable in the Czech Republic than in Slovakia, so we expect that the preference for sponsoring will be stronger in Slovakia.

*Hypothesis 2:* The tax rate has a stronger impact on sponsoring than on giving.

The size of the company is a typical factor influencing expenditures on philanthropy. This is natural as large companies have more funds available, thus, they spend more in absolute amounts also on charity.<sup>13</sup>

*Hypothesis 3:* Bigger companies spend more on philanthropy.

The ownership of the company is another factor that influences philanthropy. Namely, it is often claimed that foreign owners transplant their home corporate culture, where philanthropic traditions are more established (Bussard et al., 2005). Companies with foreign owners are therefore expected to take the lead in philanthropic behavior in transition economies (e.g., BLF CR, 2004; Bussard et al., 2005), possibly due to their better performance (Hanousek, Kočenda and Svejnar, 2007). An additional factor

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<sup>12</sup> We claim that firms that engage in philanthropy tend to avoid rather than evade taxes because they are more “visible” because of their philanthropic activities. If they preferred to evade taxes, we claim that they would not invest in charity and attract unwanted attention. Thus, we do not expect that evasion would make estimation problematic.

<sup>13</sup> Large companies have more funds available but smaller firms often perform better than large ones (Hanousek, Kočenda and Svejnar, 2009).

increasing the giving of foreign companies may be a higher need to build relationships and goodwill in the country.

*Hypothesis 4:* Foreign-owned companies spend more on philanthropy.

Corporate giving might also be determined by the industry the company operates in (Clotfelter, 1985; Abzug and Webb, 1997). Engagement in philanthropy is more important for firms in services because they are closer to their customers and need to be visible in the community, and retail firms because they deal with large groups of consumers. These pressures are the smallest in manufacturing. An additional argument is the relatively lower mobility of firms in services or retail, which further increases the importance of community engagement.

*Hypothesis 5:* Firms in retail and services spend more on philanthropy than firms in manufacturing.

Firms operating at local, national, and international levels of operation face different conditions and meet different stakeholder groups. Firms operating at the international level meet stronger stakeholder groups and operate in an environment with higher expectations on corporate behavior (Abzug and Webb, 1997). These factors increase pressure to engage in philanthropy. On the other hand, firms operating at the regional level are closer to their stakeholders and the needs of the local community. Which of these forces is stronger is an empirical question.

*Hypothesis 6:* The geographic level of operation affects the philanthropic behavior of companies.

The last factor we want to discuss is location. We assume that the biggest difference in philanthropic behavior exists between firms located in the capital city and those located in other regions, however what direction this difference goes in is not clear. Philanthropic engagement in the capital could be expected to be lower because firms in areas with many other companies tend to free ride on the giving of others (Navarro, 1988) and it is more difficult to build relationships and cooperation due to anonymity. However, engagement could be expected to be higher in the capital because companies

tend to have more resources and there is a higher density of nonprofit organizations, increasing pressure to give (Navarro, 1988). Which of these forces is stronger is an empirical question.

*Hypothesis 7:* The philanthropic behavior of firms located in capital cities differs from that of firms in other regions.

#### **4. Data**

Despite considerable difficulties with data availability we assembled a unique dataset on corporate philanthropy.<sup>14</sup> Data for the Czech Republic were collected in two surveys using face-to-face interviews: the first sample was collected for the Czech Donors Forum in 2004, covering 577 firms over three years (2001–2003), with an over-sampling of large- and medium-sized firms.<sup>15</sup> The second sample was collected in 2006, covering 162 firms over five years (2001–2005), focusing entirely on large- and medium-sized firms. 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. Details about the samples are summarized in Table 2 below. Unfortunately, a new wave of the survey scheduled for 2008–2009 has been cancelled and therefore we have to work solely with the datasets mentioned above.

The focus of our surveys was on quantitative information about corporate philanthropy that would allow testing our formulated hypotheses. We collected specific information on amounts spent on sponsoring and giving, the number of supported entities, the supported areas, the target groups, and information about the companies (number of employees, industry, geographical area, legal form, level of operation, sales, and income before taxes). Because we work with survey data we have to address the problem of sample selection: small firms and firms with no or low contributions are less likely to participate in corporate philanthropy (Navarro, 1988; Helland and Smith, 2003). This problem is mitigated to some extent by the fact that we have information on sponsoring and giving, i.e. we have information for firms that did not give but sponsored and vice versa. The second problem is with the quality of data on philanthropic expenditures: corporations are reluctant to publicize any specific information regarding their philanthropic spending (Kivilo, 2004; Múčka, 2005; Marček and Dluhá,

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<sup>14</sup> Only one of the existing studies on the Slovak Republic includes information on the amounts spent (for 2001, Marček and Dluhá, 2002). The only study on the Czech Republic is the one by Donors Forum (DF, 2004); we work with this data.

<sup>15</sup> A 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.

2002) and accounting regulation of giving is complicated and unclear, particularly for material gifts and services. We addressed this problem by allowing the respondents to report the spending information in intervals. Unfortunately, the first interval (for giving and sponsoring) in the original Czech survey was very broad, up to 200,000 CZK. As a result nearly 79% of the reported giving (company/year) fell into this interval. In the subsequent surveys we split this interval into four subcategories, and to maintain the number of intervals we merged the top three intervals.<sup>16</sup> Lastly, the respondents reported the information retrospectively, which also decreases the quality of the data. However, this problem was mitigated by arranging the interviews in advance and giving the respondents time to prepare.

Table 3 summarizes the aggregate information for both countries: the fraction of firms that participate in sponsoring/giving (Participation), the average amount spent on sponsoring/giving (Amount), the average amount reported in common intervals (CI), 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 in CI. Data in Table 3 and subsequent estimations are weighted to be representative of the population of firms in the country. We used the Wald test to test for the equality of means between the two countries; the results are provided in the last column.

We observe that the two countries are very different: sponsoring participation and expenditures as a fraction of profit in CI are the only categories where we fail to reject the null hypothesis of equality between the countries. The differences between the data reported using the original and common intervals illustrate the biases caused by the size of the original first interval (Slovak Republic) and the merging of the last intervals (Czech Republic). Nevertheless, even in common intervals the differences between the countries remain significant and Slovakia lags behind the Czech Republic. One reason may be a difference in the profitability of companies: profits in Slovakia are significantly below those in the Czech Republic (average profit in the Czech Republic was 227,431 thousand CZK, in the Slovak Republic 14,040 thousand CZK).<sup>17</sup> Assignment participation (Slovak Republic) is significantly above the giving participation (at the 10% level). A comparison of assignment participation to that obtained in the un-weighted sample illustrates that small firms assign less often.<sup>18</sup> This result is in line with the fact

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<sup>16</sup> Throughout the study we work with different intervals for different samples. We provide results with common intervals when different from the standard.

<sup>17</sup> The difference is driven by less than 1% of firms with very high profits that is missing in the Slovak sample. The result is even stronger when we take into account that the fraction of firms that reported profits was higher in the Slovak Republic; more than 70% of firms in Slovakia reported their profit, while the fraction in the Czech Republic is only around 50%.

<sup>18</sup> This comparison is available on request.

that the probability of low (zero) profit among small firms is higher because these firms pay no or low taxes, so they have nothing to assign. The result is similar for giving participation.<sup>19</sup>

## 5. Results

### 5.1. Participation

In this section we report the results on sponsoring and giving participation and for the Slovak Republic also participation in assignation. The sponsoring and giving specifications also provide the estimate of Heckman's selection parameter,  $\lambda$ . The model is estimated separately for the Czech and the Slovak Republics because the Chow test of the equality of coefficients rejected the hypothesis of the equality of the two samples. The test failed to reject the hypothesis in the comparison of the two Czech samples, we therefore merge the two. To account for a difference in levels<sup>20</sup> we use a dummy variable (CR II) denoting the second sample. We estimated a linear probability model, probit, and a system of seemingly unrelated equations, but we report only results from probit random effects, because the results did not differ significantly and probit is used for Heckman's selection correction.<sup>21</sup>

The results summarized in Table 4 illustrate that there are significant differences between the two countries: there is strong support for Hypothesis 3, that large companies are more active in the Czech Republic, since both the number of employees and turnover have a positive impact on participation. In the Slovak Republic, the results are weaker and mixed: turnover has positive impact on sponsoring, and the number of employees has a positive impact on giving participation. There is a strong difference also in Hypothesis 6, on the international level of operations: we observe higher giving participation of local firms in the Czech Republic, while in Slovakia the companies on the international level participate more often in both sponsoring and giving. Interestingly, we do not find strong support for Hypothesis 4, that foreign firms are more active: we observe only weak support for the hypothesis in Czech giving. The remaining results are either not significant or even negative, such as sponsoring participation in Slovakia. In both countries we observe that firms in the capitals are less active in philanthropy (Hypothesis 7). This may be a sign of free-riding since there is high concentration of companies and some expect that others will take care of philanthropy or the

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<sup>19</sup> We have no data on the amounts assigned. This question was omitted from the survey as we did not expect any company to assign less than the 2% allowed by law. Although we did ask whether they used the assignations to the full extent, and only 9% of the companies responded that they assigned less than 2%.

<sup>20</sup> The original sample included several large donors.

<sup>21</sup> Results from the other estimations are available on request.

anonymity of the city makes it difficult to establish partnerships. We do not observe any strong significant results for Hypothesis 5 (the role of industry).

Finally, we observe a strong positive time trend in participation in the Czech Republic, while this trend is missing in Slovakia. We observe no significant impact of changes in tax rates contrary to our expectations, particularly in Slovakia (Hypothesis 1), although the missing growth in Slovakia offers partial support for the negative impact of these changes.<sup>22</sup>

These results indicate that the philanthropic culture, particularly among small firms, is more developed in the Czech Republic than in Slovakia. Small (with few employees) and local firms in Slovakia, though, do sponsor and participate in assignation, i.e. they seem to be interested in philanthropy but may suffer from a lack of resources. In Slovakia philanthropy is still more the domain of large and internationally-operating firms.

## 5.2 Expenditures on philanthropy

Tables 5 and 6 summarize the results from the main specifications for the expenditures on sponsoring and giving. To account for potential selection bias we include among the explanatory variables Heckman's  $\lambda$  obtained from the participation equations summarized in the previous section. As in the previous analysis we merge the two Czech samples and analyze Slovakia separately. We used the Hausman test to compare the suitability of the fixed and random effects; the test rejected the null hypothesis of the independence of the firm specific effects and the error term in both specifications. Thus, we estimated FEM, and the results are summarized in Table 5.<sup>23</sup> In order to test the hypotheses regarding the observed firm characteristics we estimated a random effects model on the residuals from the fixed effects regression as described in the methodology section above. Results from these estimations are summarized in Table 6.<sup>24</sup>

The coefficients at Heckman's  $\lambda$  are insignificant in Slovakia, i.e., the selection bias does not present a major hurdle. Therefore, in the decomposition regression below we report results from the models without correcting for the selection bias.<sup>25</sup> The coefficients in the fixed effects model (FEM)

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<sup>22</sup> We suspect that corporate philanthropy in Slovakia has similar “potential” to grow as in the Czech Republic, due to the favorable economic evolution, GDP growth, and the development of infrastructure supporting corporate philanthropy as summarized in Section 4 above.

<sup>23</sup> We also tested for the suitability of panel data estimation versus stacked pooled data estimation; the test rejected the pooled estimation.

<sup>24</sup> We 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.

<sup>25</sup> We do not provide results from the fixed effect estimation as they are similar to those provided.

specification are insignificant even though the explanatory power of the models is high (measured by the adjusted  $R^2$ ). Therefore, we can conclude that neither sales (with the exception of giving in the CR) nor taxes have effect on the expenditures on philanthropy: We fail to support Hypothesis 1 as there is no significant decline in giving in Slovakia after 2004 (coefficient at *Tax3 SR*). The only evidence we have to this end is the missing growth of participation (contrary to the Czech case) described in the previous section. We also fail to support Hypothesis 2 of different impact of taxes on sponsoring and giving, or difference between the two countries. This result is caused by two facts: many of the relevant determinants were captured in the participation decision and the main explanatory power for the expenditures decision is in the firm specific characteristics that are observable only in the consequent regressions on the residuals.<sup>26</sup> Results from these regressions follow.

Size, measured by the Number of employees, was found to have no effect on the expenditures on sponsoring. In giving, however, we observe opposite effect in the two countries: in the Czech Republic small firms give more than firms with many employees, the opposite is true in Slovakia. Results are in line with those regarding participation. This result further supports the hypothesis that the development of philanthropic culture, particularly among small firms, is lagging in Slovakia.

Ownership (Hypothesis 4) has different impact on sponsoring and giving: while it does not affect expenditures on sponsoring, foreign owned firms spend significantly less on giving. These results fail to support Hypothesis 4 that foreign firms are the leaders in philanthropy. Moreover, foreign owned firms are more profit driven as observed in an additional test on the Slovak sample. We added interaction terms between the year 2004 and ownership among the explanatory variables because the 2004 change was expected to have the strongest effect on expenditures. Results (*SR 2*, the third column of Table 6) support this expectation. While the domestic firms did not change their behavior significantly in 2004, the foreign firms did: we observe an increase in the sponsoring expenditures, the effect on giving is negative but not significant. This result suggests 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 retail, and in Slovakia also those in manufacturing, spend less on giving. Thus, we partially support Hypothesis 5 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 stakeholders' pressures and their closeness to the company, sponsoring being aimed at attracting customers, similarly as advertising.

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<sup>26</sup> 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 sales.

The level of operation (Hypothesis 6) matters only for the expenditures on sponsoring. In the CR regionally operating firms spend more on sponsoring, in Slovakia they spend the least. We observe no differences in giving. The absence of a difference in expenditures between firms at the international and local level is positive, though we have to keep in mind that the local firms in Slovakia do participate significantly less often.

Regarding Hypothesis 7, we observe that firms in Prague spend more on giving than firms in other regions. We observe no other difference. We are not able to identify the specific motives for such behavior, one possible reason is the positive correlation between profitability and location in Prague. As we do not control for profits in the specification, location might capture some of this effect.

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 additional companies were chosen so that the sample would become representative, inclusion of these major donors 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, 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 merging of the first interval. The results from this control treatment did not differ significantly from the results presented above, with one exception: the coefficients of the two tax dummies (*Tax2\_CR*, *Tax1\_SR*) were significant.<sup>27</sup> 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 effect is likely to be artificial. Choosing another merging of intervals would probably lead to a different result. Nevertheless, the obtained results offer some support for the hypothesis that there is a difference in the motivation for sponsoring and giving, sponsoring being motivated more strongly by the maximization of profits than giving.

## 6. Conclusion

In this study we analyzed corporate philanthropic behavior of firms in two transition countries, the Czech Republic and Slovakia, using survey data of 739 firms in the Czech Republic and 152 in

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<sup>27</sup> Results from this estimation are available on request.

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 gave more often and significantly more than firms in Slovakia. In addition, giving in Slovakia is more prevalent among large firms operating on the international level, while in the Czech Republic smaller, regional firms also participate. These differences between the countries seem to be caused by differences in profitability, further enforced by missing “leaders” in Slovakia, i.e., large Slovak firms give less than large Czech firms. Differences in sponsoring behavior are of a smaller extent.

One of the major questions of this study was the impact of taxes: did decreasing corporate tax rates affect corporate philanthropy? If we looked only at the significance of tax variables the answer would be no, none of the changes had a significant impact on either sponsoring or giving. This also means that corporate philanthropy is motivated predominantly by the maximization of managerial utility. However, these results need to be considered with caution because changes in the tax rates in the Czech Republic were rather minor. In Slovakia, the differences were bigger, in particular the change in 2004. To further evaluate the impact of the tax change in 2004 in Slovakia we analyzed it separately for firms with different ownerships. 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 to sponsoring in 2004, suggesting that foreign firms are more profit-motivated than domestic ones. In general, though, we did not find support for the hypothesis that firms with foreign capital give or sponsor more. We observed that foreign-owned firms in the Czech Republic give more often, but their expenditures are below those of other firms.

While in the Czech Republic we observe significant growth in participation in both sponsoring and giving, participation in Slovakia has remained stable, despite significant economic growth and activities in support of corporate philanthropy. The participation of foreign-owned firms in Slovakia is significantly below the participation of domestic firms in sponsoring. Their expenditures on sponsoring are similar, but they are significantly below those of domestic firms in giving. We failed to support our hypothesis regarding the higher engagement of firms in services with the exception of sponsoring in the Czech Republic. Their expenditures in giving, however, are the highest in both countries. This may result from the fact that the profitability of firms in services is the lowest when compared to other industries, having a negative effect on participation. On the other hand, once they start to engage in philanthropy, possibly because of their close relationships with stakeholders, the firms tend to give more. This feature may be a sign of growing corporate social responsibility in the region.

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Table 1: Tax Legislation

<b>Czech Republic</b>		<b>Slovak Republic</b>	
<b>Limit on tax-deductibility</b>			
2% of tax-base		2% of tax-base	
5% (if natural disaster causes)			
10% for 2002–2003 (floods)		Since 2004 – no deductibility	
<b>Corporate tax rate</b>			
Until 2004	31%	2000–2001	29%
2004	28%	2002–2003	25%
2005	26%	2004	19%
2006	24%		
2008	21%		
		since 2003	2%

Source: CR: The Act on Income Taxes No. 586/1992 Coll. in the wording of its future amendments; SR: The Act on Income Taxes No. 595/2003 Coll.

Table 2: Structure of the samples

	<b>CR I</b>	<b>%</b>	<b>CR II</b>	<b>%</b>	<b>SR</b>	<b>%</b>
<b>Number of employees</b>						
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
<b>Ownership</b>						
Foreign	38	7	21	13	21	14
More foreign	31	5	10	6	9	6
More domestic	54	9	41	25	26	18
Domestic	454	79	90	56	94	62
<b>Level of operation</b>						
International	90	16	50	31	48	33
National	148	25	65	40	57	38
Regional	339	59	47	29	43	29
<b>Industry</b>						
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

Source: CR I: Survey by Donor's Forum (DF, 2004), CR II: Survey on request of the authors conducted by Median CR in 2006, SR: Survey on request of the authors conducted by Median SR in 2005. All,three surveys used the same questionnaire to allow for comparison. Authors' computation.

Table 3: Comparison CR/SR, Basic indicators

	Sponsoring			Giving			Assignment
	CR	SR	Wald test	CR	SR	Wald test	SR
Participation	0.56 (0.01)	0.60 (0.03)		0.61 (0.01)	0.42 (0.03)	***	0.51 (0.04)
Amount	471.75 (63)	133.41 (33.07)	***	375.85 (64.76)	58.61 (16.97)	***	
Amount (CI)	317.13 (-24.4)	167.43 (32.37)	***	246.15 -18.36	101.75 (16.67)	***	
Amount/profit	0.33 (.04)	0.11 (0.02)	***	.44 (.06)	0.05 (0.01)	***	
Amount/profit (CI)	0.32 (0.04)	0.27 (0.05)		.44 (.06)	0.22 (0.05)	***	

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

Notes: Amounts are in thousands CZK, adjusted for inflation with base year 2001.

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

Table 4: Participation, Random Effects Probit

	Sponsoring				Giving				Assignations	
	CR		SR		CR		SR		SR	
Number of employees	0.61	*	-0.56		0.91	***	1.09	**	-0.97	*
	(0.33)		(0.49)		(0.32)		(0.52)		(0.51)	
Sales log	0.32	***	0.4	**	0.35	***	0.23		0.91	***
	(0.07)		(0.18)		(0.07)		(0.19)		(0.22)	
Manufacturing	-0.69	**	1.08		-0.06		0.26		0.96	
	(0.34)		(0.73)		(0.33)		(0.7)		(0.71)	
Retail	-0.58	*	1.6	**	0.42		1.74	**	0.68	
	(0.32)		(0.75)		(0.37)		(0.72)		(0.74)	
Level of operation	-0.13		-1.93	***	0.84	***	-1.01	**	-1.52	***
	(0.24)		(0.39)		(0.23)		(0.38)		(0.41)	
Capital	-1.08	**	-0.04		-1.36	***	-2.23	***	2.33	**
	(0.44)		(0.92)		(0.45)		(0.85)		(0.99)	
Foreign own	1.28		-5.4	***	1.28	*	-0.2		-1.71	*
	(0.89)		(1.04)		(0.75)		(0.96)		(1)	
Mixed own	0.54		-0.27		-0.51		1.09		-1.16	
	(0.45)		(0.72)		(0.44)		(0.67)		(0.75)	
CR II	-0.74				0.06					
	(0.6)				(0.59)					
Year	0.3	***	0.02		0.32	***	0.1		0.29	
	(0.08)		(0.39)		(0.07)		(0.34)		(0.3)	
Tax1 CR	0.19				-0.64					
	(0.57)				(0.6)					
Tax2 CR	0.28				0.05					
	(0.63)				(0.65)					
Tax1 SR			-0.05				-0.24			
			(0.68)				(0.6)			
Tax3 SR			-0.13				0.09			
			(0.66)				(0.58)			
Constant	-3.61	***	1.25		-6.21	***	-3.13		-6.36	
	(1.12)		(2.37)		(1.19)		(2.44)		(2.75)	
No. of obs.	1665		504		1665		504		254	
Log-likelihood	-608.92		-107.12		-611.94		-139.33		94.57	

Standard errors are in parentheses.

\*\*\* denotes significance at 1%, \*\* at 5%, \* at 10%.

Tax1 CR denotes the first tax period in the CR, 2001-2003, Tax2 CR, 2004, Tax3 CR denotes 2005 and serves as benchmark for the Czech Republic (omitted from the regression).

Tax1 SR denotes the first tax period in the SR, 2001, Tax3 SR the last one, 2004. Tax2 SR denotes the period 2002-2003 and serves as a benchmark (omitted from the regression). See Table 1 for details.

Table 5: Expenditures, FEM with Heckman's correction

	Sponsoring		Giving	
	CR	SR	CR	SR
Sales log	0.41 (0.28)	-0.06 (0.26)	0.45 *** (0.16)	0.03 (0.42)
Year	0.08 (0.07)	0.09 (0.08)	0.06 (0.06)	-0.05 (0.16)
Tax1 CR	0.03 (0.17)		-0.17 (0.21)	
Tax2 CR	0.09 (0.14)		-0.001 (0.16)	
Tax1 SR		0.22 (0.16)		0.15 (0.31)
Tax3 SR		-0.17 (0.17)		0.06 (0.28)
Inv. Mills	-1.18 * (0.7)	-2.02 (1.61)	-1.18 *** (0.42)	-1.38 (0.99)
Constant	1.27 (3.11)	4.73 (3.49)	0.63 (1.77)	3.94 (5.18)
Adj. R	0.59	0.9	0.67	0.76
No. of obs.	1062	312	1183	229

Standard errors are in parentheses.

\*\*\* denotes significance at 1%, \*\* at 5%, \* at 10%.

**Table 6: Expenditures, Decomposition of firm effects**

	Sponsoring			Giving		
	CR	SR	SR 2	CR	SR	SR 2
Number of employees	-0.09 (0.12)	0.25 (0.27)	0.25 (0.27)	-0.57 *** (0.16)	0.54 * (0.28)	0.54 * (0.28)
Manufacturing	0.3 (0.22)	0.72 (0.52)	0.72 (0.52)	-0.02 (0.29)	-0.98 ** (0.42)	-1 ** (0.42)
Retail	-0.07 (0.27)	0.57 (0.59)	0.58 (0.59)	-0.54 * (0.31)	-0.81 * (0.45)	-0.84 * (0.44)
Level of operation	0.42 *** (0.14)	-0.61 * (0.33)	-0.6 * (0.33)	-0.26 (0.18)	-0.34 (0.24)	-0.34 (0.23)
Foundation	0.58 ** (0.24)	-0.001 (0.96)	-0.007 (0.95)	0.97 *** (0.37)	-0.64 (0.81)	-0.64 (0.81)
Capital	-0.12 (0.27)	-0.61 (0.48)	-0.61 (0.48)	0.56 * (0.31)	1.09 (0.94)	0.94 (0.85)
Foreign own	-0.45 (0.30)	1.36 (0.98)	1.15 (0.97)	-1.11 ** (0.45)	-1.72 * (0.99)	-1.46 (0.91)
Mixed own	-0.26 (0.26)	-0.2 (0.52)	-0.23 (0.52)	-0.28 (0.36)	-0.57 (0.39)	-0.8 * (0.41)
Foreign 2004			0.71 *** (0.2)			-0.8 (0.58)
Mixed 2004			0.33 *** (0.11)			0.67 (0.49)
Domestic 2004			-0.15 (0.14)			-0.13 (0.15)
CR II	-2.03 *** (0.21)			-2.5 *** (0.24)		
Constant	-0.62 *** (0.49)	0.48 (0.93)	0.51 (0.95)	2.07 *** (0.6)	0.76 (0.78)	0.82 (0.79)

Standard errors are in parentheses.

\*\*\* denotes significance at 1%, \*\* at 5%, \* at 10%, (\*) at 11%.

SR 2 column provides results from additional specification developed to examine the impact of the legislative changes in Slovakia in 2004 on different ownership forms.