Industrial Organization and Corporate Generosity:

Are foreign-controlled corporations more generous?

by

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Abstract

This paper deals with donations by Canadian corporations to charity. It investigates the determinants of the decision to donate and the level of donation by Canadian corporations using micro-data from the annual financial and taxation statistics produced by the Industrial Organization and Finance Division, Statistics Canada. This study follows the footsteps of two key studies on the subject based on Canadian data: Day and Devlin (1994) and Jones and Laudadio (1991). In addition to ascertaining the direction of key coefficients established to date, this paper addresses the country of control variable and its effect on corporate donation. It posits that foreign-controlled Canadian corporations are more likely to give—and give more generously—than their Canadian-controlled counterparts, as part of a strategy to be perceived as good corporate citizens and so counter any negative perceptions. The perceived image is assumed to affect profitability and public relations expenditures, including charitable donations.

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The micro data used for this paper is information obtained in confidence and has only been accessed by the author by virtue of his employment with Statistics Canada. ALL opinions expressed are the author's and should under no circumstance be construed as official position of Statistics Canada.

1. INTRODUCTION

In 2003, 25% of all Canadian taxfilers claimed charitable donations and donated over $6.5 billion (Statistics Canada, 2004) compared to 3% of corporate taxfilers who gave over $1 billion (Statistics Canada 2005). Charitable donations are a significant source of funding to the non-profit sector of the Canadian economy[1]. The importance of the non-profit sector of the Canadian economy cannot be overemphasized: for example, in 1999, the non-profit sector as a whole contributed over 6.8% of the GDP (Statistics Canada, 2004b). Organizations that benefited the most from charitable support included those in the health, social services, religious, educational and research sectors. The most commonly cited reason for donating by individuals was compassion for those in need (Statistics Canada, 2004a).

The reasons behind corporate contributions to the community are less obvious. By design, corporations differ from individuals in that they are legal persons that entrust their fiduciary matters to a board of directors and management. Broadly speaking, corporations may be "managerially controlled" or "owner-controlled". (Navarro, 1988, p. 80). The fiduciary role corporate managers and boards play is the basis for most of the arguments surrounding whether or not managers should earmark corporate funds for charitable (non-business) purposes. Corporate managers are therefore caught between the requests they receive for support from the local community and their accountability to shareholders or owners of the corporation. Managers of foreign-controlled corporations (especially those that are tightly controlled by the external parent) may face additional challenges in that their owners do not have a sense of the needs of the local community and will therefore be reluctant to support any charitable disbursements.

[1] Most charities are nonprofit but not all nonprofit organizations are charities.

Casual empiricism would suggest that there has been something of a change in culture with respect to corporate giving. Whereas traditionally, corporate giving programs were geared towards placating the most obvious (and possibly most insistent) community needs, managers who hold corporate purse strings today are expected to be more strategic in their giving. They are held accountable for optimality in their giving program; "these managers make the decisions *to give* and are evaluated on those choices and the effectiveness of the projects supported by the corporation." (Saiia, Carroll, and Buchholtz, 2003, p.174). To the extent that a strong business case can be made for corporate social responsibility (CSR), this suggests that corporate giving may in fact be positively linked to managerial discretion.

One particular feature of interest in the Canadian context—where there is extensive foreign ownership in the corporate sector—may be the possibility of a significant difference in giving amongst corporations, depending upon the country of control. Between 2000 and 2003, corporate charitable donations grew 4% (in constant dollars) from $905 million to $942 million. Of these figures, the percentage of contributions made by corporations whose country of control was outside Canada was 18% in both 2000 and 2003 respectively. Coincidentally, the percentage of charitable contributions made by foreign-owned firms fell to 13% for both 2001 and 2002, years dogged by global events such as the 9/11 crisis and corporate scandals.

The emerging literature on strategic giving suggests that a corporation established in a foreign jurisdiction would find it in their best interest to give more generously than their local counterparts. One reason for this might be to project the image of an exemplary corporate citizen. This paper investigates whether or not foreign ownership affects

corporate giving. After controlling for size, industry and profitability, this paper finds there was a slight tendency for Canadian-controlled firms to be more generous than foreign-controlled enterprises, both in terms of the probability to donate and the amount donated to charity but this difference may be industry-specific.

The rest of this paper is arranged as follows. Section 2 reviews the existing literature on corporate giving. Section 3 presents the general methodology underlying this study of Canadian corporate giving and provides a description of the data. Results are reported and interpreted in section 4. The conclusion appears in Section 5.

2. LITERATURE REVIEW

The motivation for corporate giving has dominated most of the literature on the subject. Do corporations give to charity out of pure altruism or some form of self-interest, that is, to maximize profit? In their quest for answers, researchers have used various terms such as CSR, corporate social conscience, corporate philanthropy and corporate generosity. to describe essentially the same thing. For the purposes of this paper, these terms are used interchangeably. Regardless of the terminology, the purpose is to explain the determinants of those gifts described on the financial records of a corporation as donations and for which the firm requests a deduction for corporate income tax purposes.

Some of the main reasons corporate managers tend to give to charity, as reflected in the literature, are: to appear as good corporate citizens; to improve the overall welfare of the communities in which they carry out their business activities; to gain a positive image

in the eyes of the public; and to satisfy the moral, ethical and/or personal desires of corporate (giving) officers (see Day & Devlin, 1994).

Some commentators argue that corporations should simply not give to charity. The classical/conservative view is that corporations have no place in philanthropic endeavour. Conservatives believe that giving is the responsibility of the shareholders of the corporation, who can choose to give to charity from the return on their investments. They also argue that when governments allow for the deductibility of corporate donations for tax purposes, they indirectly encourage managers to disburse company funds without the authorization of the shareholders, which leads to a suboptimal allocation of resources in society (Porter and Kramer, 2002, p.58; Peter Navarro, 1988, p.66).

In contrast, a more liberal view accommodates corporate giving, but attempts to understand how the pursuit of altruism may be tainted by the motive for profit maximization, which conservatives argue is and should be the sole purpose of business. Liberals argue that corporations have a social responsibility to respond to perceived needs in the local and wider environment. However, the motive here is not one of profit or obligation to shareholders, but of compassion, sympathy or altruism (Navarro, 1988, p.66). These two opposing, though in some ways complementary, views put forth by both conservatives and liberals can be anchored in the profit maximization and the managerial utility maximization theories of the firm. Both of these theories were formally developed by Navarro (1988) to explain some of the reasons why corporations give to charity.

The profit maximization model associates corporate giving to the need for increased profitability, while the managerial discretionary model connects corporate giving to the

discretionary spending of corporate managers. Under the profit maximization theory, corporate donations are seen as performing a function in lieu of advertising and other forms of sales promotion that would lead to increased corporate revenue and ultimately profit. Generally, the desired effect of corporate giving (directly or indirectly) is to boost operating revenue and reduce operating cost, including taxes, which would result in increased profitability.

Under the managerial discretionary model, however, the theory is that after meeting certain profit target, managers divert "free cash" to expenditure that generally maximizes their own utility. Such managers, it is argued, give to charity in order to obtain a "warm glow" or to be seen and respected in the community. Detailed discussion of these models can be found in Navarro (1988).

This paper generally assumes that all corporations operate in an imperfectly competitive setting. According to Jones and Laudadio (1991), the standard neoclassical view is that corporate donations only occur in imperfectly competitive markets. Under perfect competition, firms are "price takers" and therefore would have no competitive reasons to distinguish themselves from each other through certain market behaviour such as advertising, promotion, and/or charitable donations. Instead, corporations would give to charity as long as the marginal cost of doing so is equal to the marginal benefit. (also see Day and Devlin, 1994, p.7).

Returning to the profit maximization and the managerial discretion models, although these two models are separate, they are not mutually exclusive. Navarro concludes that the profit maximization model can indeed be nested in the managerial discretion model.

Empirical attempts have focused on identifying which model dominates corporate giving. According to Navarro (1988), profit maximization, which calls for increased revenue, cost reduction and beneficial tax consideration, is separate and apart from managerial discretion. His research using US data indicated that the profit maximization reasons for corporate giving are stronger than those for managerial discretion. Corporate giving is advantageous in terms of advertising and employee fringe benefits.

In the case of beneficial tax consideration, Navarro (1988) explored the impact of taxation on corporate giving under the managerial discretion model. He concluded that if the manager considers profit in his/her utility function, increase in the tax rate implies a decrease in the "taxprice[2]" and hence a tendency to increase donation. Conversely, he concludes that if profit is not a factor in the manager's utility function, then an increase in tax will result in a decrease in donations.

Within a corporate tax system where charitable donations can be written off against business income, profits are affected. However, the effect of a change in the corporate tax rate on charitable donation is less clear. "The profit maximization model predicts that the corporate tax rate will have little effect on the level of corporate donations." (Day and Devlin, 1994).

In examining whether corporations give to charity altruistically or for reasons of profit maximization, Fry, Keim and Meiners (1982) found that corporate giving complements advertising and therefore a profit-motivated expense. Using cross-sectional data obtained from the IRS to study the effect of firm size on corporate giving, McElroy and Siegfried (1985) concluded that on average, corporations gave more as their pre-tax net income

[2] Taxprice is the amount a corporation ultimately pay for its financial donation after accounting for the tax deductible portion. For example, if the marginal tax rate is 30%, for every $1 donated, the corporation upon claiming a deduction for the donation would end up paying (1-.30)=0.7 out of corporate coffers.

increased. In contrast, Aupperle, Carroll and Hatfield (1985) are not able to support or reject any claimed relationship between CSR and corporate profitability. In their study, Aupperle, Carroll and Hatfield (1985) used the ROA (return on asset) as an explanatory variable. They argue that as a standard measure of profitability on a relative basis, ROA is more universally acceptable and less likely to produce misleading results than other measures. However, they found no statistically significant relationship between a strong orientation toward social responsibility, or concern for society, and financial performance.

Another variable that Navarro (1988) used to test for the managerial discretion motive is the debt-to-equity ratio. He predicted a negative relationship between this ratio and donation but could not find supportive evidence. But under the profit maximization motive it was expected that highly levered firms would systematically contribute at lower levels. It is expected that enterprises whose tax shield is low would tend to avoid employing debt capitalization (MacKie-Mason, 1990). This would imply a high collinearity between the effective marginal tax rate and debt financing (and the debt-to-equity ratio). The effect of debt financing on donations in this regression model may therefore be shared with the effective tax rate. As debt financing increases, profitability is negatively affected, reducing availability of free cash at management's disposal. It should also be noted that managers of enterprises with high debt capitalization would feel less fettered or accountable to their shareholders. Such enterprises, for the most part, are either small with few shareholders—perhaps family-owned businesses—or firms in which there may be a large degree of managerial discretion. Under these conditions, the variable would be expected to result in a positive sign.

The next important consideration by Navarro in his empirical work was the role of government expenditure. Navarro found that during the Reagan administration when the federal budget was dramatically cut, corporate donations rose. However, Day and Devlin (2004) found that as government expenditure rises so do corporate donations.

Generally, government policy can affect donations in two main ways: through the preferential tax treatment of corporate donations, and by direct expenditures in program areas which may crowd out money given by corporations.

To date, there are only two econometric studies on corporate giving that are based on Canadian data: Jones and Laudadio (1991) and Day and Devlin (1994, 2004).

Using a cross-section sample of 38, 3- and 4-digit SIC manufacturing industries pooled for 1976 and 1981, Jones and Laudadio (1991) studied the Canadian market structure in the determination of corporate charitable donations. They hypothesized a positive relationship between corporate donations and a measure of market imperfection (concentration). They found that, although non-linear, concentration (market power) is a significant determinant of donations. They also found that the cost of giving (the tax rate) is appropriately positive; and that there are significant negative relationships for measures of foreign ownership and wage rates.

Day and Devlin (1994) analyzed the influences on corporate philanthropy with a focus on responsiveness to government fiscal policy using microdata assembled by the Conference Board of Canada's Institute for Donations and Public Affairs Research (IDPAR). Though this paper provided several interesting findings, the main one was that government expenditures and corporate contributions are complements rather than substitutes – thus, corporate contributions are crowded in by government spending. This

was contrary to Navarro's US-based study as mentioned earlier. By extension, Day and Devlin (1994) found that government cut-backs may indeed have a stronger negative impact on certain services when one takes account of this complementarity.

In the case of country of ownership[3] Jones and Laudaddio (1991) called for a negative relationship with corporate donation. They argue that, firstly, US-controlled Canadian firms will mimic the behaviour of their parent company in the US and are therefore more likely to reduce charitable giving in response to increased government financing of the not-for-profit sector. Secondly, they take the view that advertising and donations are substitutes, and therefore to the extent that US advertising spills over into Canada, US-controlled Canadian corporations would have less need to donate in Canada since they already reap the benefit of the US-based advertising campaign here in Canada. If US-owned corporations are indeed taking advantage of market similarities and externalities resulting from geographical contiguity, then, all things being equal, the donating behaviour of enterprises controlled by other foreign countries should be different. Jones and Laudadio obtained a negative relationship and concluded that foreign-controlled firms donated less in relation to their capacity to do so when compared to their Canadian-controlled counterparts. Strikingly, however, Day and Devlin (2004) found that firm ownership does not appear to influence charitable donations in Canada. This result may mean that ownership does not matter.

Although the structural form of the econometric model that will be used in this paper is similar to the models proposed by Day and Devlin (2004) and Jones and Laudadio (1991), there are some significant differences that may affect comparability. Both Day

[3] Country of ownership is used interchangeably with foreign control and with country of control. Enterprises used in this paper comes flagged with respect to their country of ownership – a process put in place by Corporations Returns Act.

and Devlin (D&D) and Jones and Laudadio (J&L) used industrial groupings based on the SIC, whereas the industrial grouping in this paper is based on the NAICS. In going from the SIC to the NAICS, certain industries are collapsed into one while others are split into several parts. Also, the corporate economic climate in the years covered by these studies is quite different from the period covered in this analysis. In particular, Day and Devlin's data spanned a period of economic recession, whereas the 2000-2003 period was far more expansionary. More importantly, Day and Devlin had a relatively small data set (305 observations of firms with positive before-tax income) but detailed information about each firm with respect to the specific sectors that were supported through corporate charity. In contrast, this paper has a much larger data set (nearly one million observations for each year) but lacks specific details regarding the beneficiaries of corporate giving.

Last but not least, this part of the review examines some of the emerging literature on strategic giving. Strategic giving takes corporate philanthropy as given. Anecdotally, its foundation may be traced to the profit maximization and the managerial model. The issue is no longer to determine which of these two models dominates the reason for corporate giving, but to take an integrated look at corporate social responsibility.

Businesses are encouraged to partner with other economic agents in solving (funding) social problems. It was suggested that businesses would be far better off competing on the basis of price and corporate citizenship, rather than solely on the basis of price (Smith, 1994). A strategic approach to philanthropy yields positive externalities for the corporation and society alike.

Porter and Kramer (2002) call for corporations to seek that perfect alignment between pure philanthropy and pure business (by tightly integrating the management of corporate giving with other company activities) that leads to a combined social and economic benefit. They examined corporate giving in the context of competition. Competition, they argue, depends on productivity, which in turn depends on having a workforce that is healthy, safe, educated and adequately housed, and well placed corporate philanthropy gives the corporation a competitive edge.

The potential for CSR to constitute an element of a firm's business strategy is arguably increased in the case of foreign-owned corporations. With the increase in global trade and profitability, corporations (especially multinationals) are expected to give generously and globally. It is believed that domestic consumers, employees, and shareholders will reward an entering firm that proves to be socially responsible, allaying fears that the intent of foreign firms is to exploit resources (and take advantage of poor environmental standards especially in developing economies[4].) Goyal (2005) predicted that corporate giving would increase along with foreign direct investment and that foreign firms that do not engage in corporate social responsibility will tend to pull out quickly and make lower profits.

It has been reported that over half of the *Fortune "500"* companies are starting or increasing their giving overseas (Smith, 1994). In order to test whether this is so, accurate data are needed from the foreign jurisdiction. Given that the US and other industrialized nations dominate the ownership of multinational enterprises, it is expected

[4] This of course would apply more in the case of rich countries investing in developing countries; nevertheless, the general position would apply in any scenario where a firm locates outside its home jurisdiction.

that their giving record in Canada can serve as a starting point in validating the claim that these big businesses are beginning to increase their charitable giving.

Therefore, the debate over the strategic role of CSR for foreign-owned firms is of particular relevance in the Canadian case. This leads to the hypothesis that foreign-owned corporations would be more likely to give to charity in Canada and would tend to give more than their Canadian-owned counterparts. At the very least, foreign-owned enterprises would need to match giving by Canadian-controlled enterprises. However, if consumers prefer, ceteris paribus, to buy from Canadian-controlled firms, foreign-owned enterprises will need to give more for strategic reasons. Another reason why these predominantly American-owned multinationals may find it profitable to increase their giving is that American products no longer enjoy the preferred status they once did on foreign markets in the face of global competition. If indeed consumers are more likely to purchase goods and services from firms they perceive as supporting their community, a charitable giving program (which many of these corporations administer in the US) could boost sales in Canada.

The country of control variable as discussed earlier has been examined by the literature in a general context as one of the determinants of corporate giving, although not directly in the context of strategic giving.

The central question in this paper is: do foreign corporations give strategically in Canada? It is expected that foreign-controlled firms would for strategic reasons give more or at least as much as their domestic counterparts.

3 METHODOLOGY AND DATA

3.1 Source of Data

This paper estimates an empirical model using micro-data from the annual Financial and Taxation Statistics for Enterprises Program, which are created and published by the Industrial Organization and Finance Division (IOFD) of Statistics Canada. The annual Financial and Taxation Statistics, including definitions, data sources and methods, are published on CANSIM, Table 180-0003 (see also Catalogue No. 61-219-XIE).

The annual Financial and Taxation Program (also known as the *annual database*) covers all incorporated businesses within the domestic economy as depicted by Statistics Canada's Central Business Register. However, enterprises classified to Funds and Public Administration are excluded from the database.

The observational unit used in this database is the enterprise. An enterprise is defined as either a family of businesses under common ownership and control for which a set of consolidated financial statements is produced on an annual basis, or simply, an independent, unconsolidated legal business entity.

The data used in compiling the annual database is drawn from administrative and survey data. The administrative data include financial and corporate income tax information collected by the Canada Revenue Agency (CRA). Under a special memorandum of understanding with Statistics Canada (STC), the corporate financial and taxation data are processed (that is, edited and rolled up to the enterprise level) by the Tax Data Division of STC in accordance with the North American Industrial Classification System (NAICS), specifically for use in statistical analysis. The remaining administrative data representing government business enterprises are obtained from

Statistics Canada's Public Institution's Division , which measures the economic dimensions of Canada's public sector. The survey portion of the data comprises selected large businesses drawn from Statistics Canada's Quarterly Financial Survey (QFS) Program (mandated to conduct quarterly surveys of the corporate sector to obtain corporate financial information).

The annual Financial and Taxation Statistics comprise financial statements and corporate tax returns typically prepared by incorporated businesses to record their financial position and performance. The data include asset, liability and equity items typically reflected in a corporate balance sheet; revenue and expense items as reported on an income statement, along with several common financial performance ratios, and a reconciliation of book profit to taxable income and taxes payable (Statistics Canada, 2004). This financial information is compiled in conformity with generally accepted accounting principles (GAAP), but because they are tailored to suit all corporations, certain industry-specific information is not apparent. For example, the line item "work-in-progress" which is typically found in the financial statements of enterprises in the construction business, cannot be found as a separate item in these statements.

The financial variables used for this study include total assets, operating revenue, net profits before/after taxes, and the debt-to-equity ratio, whereas the taxation variables used include charitable donations and total taxes paid by corporations (see Table 1 for a complete list of the variables used). The charitable donations reflect corporate donations claimed on corporate income tax returns[5].

[5]Donations over $500 have been rounded to the nearest thousand while gifts less than $500 are rounded to zero (Statistics Canada, 2003). This distorts the count/proportion of corporations who gave but should have very little effect in terms of amount donated.

The tax laws allow for the deductibility of business expenses when they are incurred in the ordinary course of business. Generally, donations to charity by a corporation are not considered business expenses. However, corporations are allowed to reduce their taxable income by the amount of their charitable donations up to a maximum of 75% of their net income for tax purposes[6], and have five years to make their claim. This means that in a given year, a corporation could donate but fail to make a claim on its corporate tax return, which might have implications for the design of the econometric model. The data, however, did not show any significant backlog of unclaimed donations.

Data limitations

Although the Annual Financial and Taxation Statistics for Enterprises database currently offers the most comprehensive data coverage of its kind in Canada, there are a few noteworthy shortcomings. Values for certain enterprises have been imputed for instances where survey respondents fail to respond. Imputations are usually based on revenue information from an enterprise that shares certain characteristics with the non-responding unit (*donor imputation*), or in some cases from previously reported data (*historical imputation*). The overall effect of the imputation process, which was based on the operating revenue of all enterprises, was reported to be under 18% in 2003. Further, the data do not include such variables as the number of employees and do not separately record expenditure on advertising.

The dataset also does not include information on the total amount of donations requested, the identity of charities to which donations were made, or the location of the

[6] "The limit was increased for taxation years commencing after 1996. The new limit for donations is 75% of the corporation's income plus, for gifts of capital property, (i) 25% of the taxable capital gain arising from the gift and taken into income in the year and (ii) 25% of the lesser of any recapture of capital cost allowance on the property included in the taxpayer's income in the year and the property's capital cost or proceeds of disposition (whichever is less). (CCH, 2002).

recipients of charitable giving. The absence of information of this sort means that analysis of this data cannot provide insights into crowding out comparable to those provided by Day and Devlin (1994). Also, corporations are assigned to provinces where the corporate headquarters are located, mostly in Canada's larger centers, making it somewhat difficult to investigate corporate donations by province. This means that particular care must be taken in interpreting the results, which are intended to capture provincial differences in the donating behaviour of enterprises.

Industries on the annual database are grouped into varied levels of details in accordance with the North American Industrial Classification System (NAICS). This study uses the 22 industrial groupings for the period 2000-2003. The scope of the study could not be extended to years prior to 2000, and beyond 2003. Prior to 2000 (excluding 1999 when the tax data were not available), the financial and taxation data were compiled from a sample survey of about 40,000 enterprises based on the Standard Industrial Classification Code for enterprises (SICC). Methodological difficulties are encountered when one attempts to use this data with the un-weighted NAICs-based census data. Data subsequent to 2003, on the other hand, are currently not available.

For each of the four years studied, the data start with slightly over 1 million observations. Based on this, enterprises classified to the Management of Companies and Enterprises (NAICSs 55)[7] and government business enterprises were excluded. Also, in order to avoid certain gross misstatements resulting from typographical and other processing errors, conditions were imposed to exclude observations with negative assets and negative operating revenue. Taken together, these restrictions resulted in a reduction

[7] Management companies by design hold assets of other corporations; those same assets are also held in the books of the subsidiary. Excluding these enterprises avoids a potential problem of double counting.

of over 200,000 observations per year from the original population. Other observations with unusual negative financial values were suppressed: upon suppression, Stata excludes these units from the regression. In other cases, the values were changed to 1, a specific example of which includes a few cases with negative or zero shareholder's equity. These cases tend to reflect the fact that very small corporations may neglect to enter an amount for shareholder's equity in their coding of the General Index of Financial Information (GIFI) that is required by Revenue Canada Agency. Changing the shareholder's equity in these units to 1 makes accounting sense, given that all incorporated companies must have at least one dollar in share capital. Finally, the total observations used for the analysis are as follows: 896,005 for 2000, 943,308 for 2001, 952,579 for 2002 and 984,627 for 2003.

3.2 Model Specification

The specification of the model can be compared to Day and Devlin (2004) and is grounded in economic theory. The independent variables[8] used in the model can be organized into four categories: financial, industrial organization, government policy and regions.

Three financial variables reflect the enterprises' revenue, cost and capital structure. These variables are therefore intended to capture the demand and cost curves of the firm. The specific financial variables considered are: netprofits (NPROFIT), return on assets (RTOA) and the debt-equity ratio (DTEQUITY). The $NPROFIT_i$ variable is considered one of two variables that distinguishes the pure profit motive from managerial discretion (Day & Devlin, 1994; Navarro, 1988). $NPROFIT_i$ is an indication of an enterprises' ability to give to charity. In the pure profit motive, technically, and if

[8] Note, the dependent variables are introduced with the econometric model.

data were available, the variable of interest would be the difference between the actual level of profits and the level expected/required by shareholders; in this case, profit would simply be another endogenous variable. This variable is expected to be positively related to corporate donations.

The $RTOA_i$ (return on asset) variable is another measure of corporate profitability and as such it is expected to be positively related to corporate donations (for example, see Aupperle et al (1985). The reasoning here is similar to the preceding argument on the pure profit motive. Shareholders normally would have a target return on their investment as represented by the asset value. Ignoring asset valuation constraints, it would be expected that the ratio of interest would be the difference between the actual return on assets and the target return. If this were possible then the base return becomes implicit in the determination of corporate donations. In both the net profit and the return on assets variable, the direction of the regression coefficient would offer the necessary determination as to whether the pure profits or managerial discretion motive dominates.

However, the relationship between corporate donations and the variable $DTEQUITY_i$ (debt-to-equity) is not clear cut; it is expected to be either positive or negative. It is expected that enterprises whose tax-shield is low would tend to avoid employing debt capitalization (MacKie-Mason, 1990). This would imply a high collinearity between the effective marginal tax rate and debt financing (and invariably the debt-to-equity ratio). The effect of debt financing on donations in this regression model may therefore be shared with the effective tax rate. As debt financing increases, profitability is negatively affected, reducing availability of free cash at management's disposal. Navarro (1988) predicted a negative sign for this variable. It should also be noted that managers of

enterprises with high debt capitalization would feel less fettered or accountable to their shareholders. Such enterprises, for the most part, are either small with few shareholders—perhaps family-owned businesses—or firms in which there may be a large degree of managerial discretion. Under these conditions, the variable would be expected to result in a positive sign.

A second group of variables deal with industrial organization. This group of variables includes dummies to capture differences across industries, and to reflect differences in giving behaviour due to differences in the country of control. As noted earlier, enterprises are separated into 22 different industries, following the NAIC system. The estimated coefficients for the industry dummies (IND_h , h=1…,22) are expected to reflect, among other things, industry-specific differences both with respect to the underlying competitiveness of the industry, and the extent to which different industries may have stronger (or weaker) motivation to support the community. For example, it might be predicted that industries in which the reputation of the business is a key factor in determining profitability (e.g., banking and insurance), firms will be more likely to donate to charity than in industries where most businesses serve other firms.

The country of control may affect both the decision to donate and the amount donated. Three dummies have been constructed for this purpose: $CANADA_i$ for enterprises whose country of control is Canada, and USA_i and $OTHERNAT_i$ for enterprises whose country of control resides in the US and all other nations respectively. One would generally expect that where a firms use corporate donations as a strategy to increase their reputation in the community, the country of control dummies would be positively related to corporate donation.

As a high proportion of Canadian corporations are foreign-owned, it is clearly important to carefully investigate the impact of foreign ownership on Canadian corporate giving. Therefore, in addition to the USA_i and $OTHERNAT_i$ dummies, interactive variables (IND_h*F, h=1...,22)[9] were created for each of the 22 industry dummies to capture specific industry effects among foreign corporations. The interactive variables provide an additional level of assurance that another important dimension has been controlled for in the estimating equation and that certain key results are solid. Furthermore, they provide information to enable one to ascertain if foreign-ownership matters within an industry and enables one to precisely evaluate their impact.

The size variables $LARGE_i$, $MEDIUM_i$, and $SMALL_i$, where introduced to control for relative differences in corporate giving due to size. To examine this size effect, firms are sorted on the basis of operating revenues[10]. In addition, the variable $RELSIZE_i$ was included to control for the effect of size within a given industry (see table 1 for definition). It is expected that corporate donations would increase with size.

The third group of variables reflects government policy. One key variable which has received considerable attention in the literature is the tax price ($TAXPRICE_i$). This variable reflects the impact of corporate income tax on the actual cost to the corporation of making a charitable contribution. If the marginal tax rate is 30%, the price a corporation pays on a one dollar donation is 70 cents. As Day & Devlin (2004) point out, this calculation of the 'tax-price' is somewhat naïve, in that it does not take into account differences in certain tax credits claimed by corporations and also fails to account for the

[9] See Table 1in appendix for complete definition of the interactive variables. The term "foreign" represents all enterprises whose country of control is not Canada.

[10] Large are enterprises with operating revenue greater than $75 million; medium: operating revenue greater than $5 million but less than $75 million; and small includes all corporations with operating revenue under $5 million.

provincial tax differential among corporations. To attenuate this problem, the model estimated here uses the effective marginal tax or effective tax, defined as the actual combined provincial and federal taxes paid by the corporation, excluding the capital tax, divided by the net income before taxes, in the calculation of the tax-price[11]. It is expected that as the tax-price falls, donations should, all things being equal, increase.

A second key way in which government policy may affect corporate giving is through actual government spending (GTOT). One view is that public spending crowds out corporate charitable giving – firms give less because the government is already meeting the community's needs (and is collecting higher tax revenue from corporations to finance this expenditure). The alternative view is that government spending is complementary to corporate charity, possibly because much charitable giving by corporations (e.g., for large capital projects) is elicited under programs which provide matching public funds. Corporate charity and public spending may also be complementary because corporations may interpret the fact that a specific charity is able to attract public funding as a signal as to the quality of the charity requesting support. A charity cannot attract public funding without demonstrating that it has sound financial management practises, for example, and consequently the corporation may rely on the 'due diligence' performed by public funders in determining how to allocate its own corporate donations.

Importantly, Day & Devlin (2004) demonstrate that corporate donations are complementary to government expenditure However, they also point out that it is important to investigate whether or not the observed complementarity between public

[11] Capital tax has been excluded from the calculation of the effective tax margin because its incidence does not depend on results from normal business activities; federal and provincial capital taxes are imposed on corporations with a prescribed level of asset. Note that the federal capital tax has recently be abolished.

sector support and corporate charitable giving is consistent across all sectors of government spending. This study therefore considers a second specification which, following Day and Devlin (2004), separates per capita government expenditure into the separate categories of protection of persons and property (PROTECPP), health (HEALTH), social services (SOCSERV), education (EDUCATN), environment (ENVIRON), recreation and culture (RECCULTU). These spending areas are ones which are also a focus of considerable charitable activity, and therefore the estimation results will provide some insight into the question of whether or not public spending is a complement or substitute for corporate charity for all sectors of the economy[12].

The census metropolitan area (CMA) dummies have been introduced to capture effects from the location of enterprises that may be exposed to greater pressure to give. Generally, one would expect the coefficients of this variable to be positively related to corporate donation. This variable is discussed further in the next section where its inclusion was necessitated by the econometric model.

The final group of variables is intended to capture regional differences (see Table 1 for detailed list). Although the industry dummies are designed to partially control for industry-specific provincial differences, this expectation is somewhat hampered by the fact that enterprises are only associated with a province based on the location of its head office. This means that the effects of certain inter-provincial trade may not be captured.

[12] The construction of government spending amounts (GTOT) and their disaggregated expenditure components is similar to the approach used by Day and Devlin (1994). Consolidated annual provincial-local government spending on health, education, social services, the environment, recreation and culture, and protection of persons and property were obtained from Statistics Canada's CANSIM database and used to calculate total per capita government spending by province. Provincial population estimates were also retrieved from the CANSIM database. See CANSIM tables 051-0005 and 385-001 for the population and government expenditure data respectively. Also, see table 1 for definition of these variables. Each firm in each year was assigned the level of per capita spending for that year that corresponded to the province in which its head office was located.

Finally, the dummies for the location of the head office of an enterprise have been further aggregated to give a sense of regional differences in corporate generosity with respect to Quebec which is used as the reference region. The next section examines the econometric model used.

3.3 Econometric Model

A naïve approach to estimating the determinants of corporate giving in Canada would be to estimate simple linear models of both the decision to donate and of the amount of corporate giving, using the entire data set. The problem with this approach is that only a handful of enterprises give to charity. There may therefore be systematic differences between firms which make charitable donations and those which do not. To correct for this selection problem, the estimated econometric model uses the Heckman procedure, and views corporations as following a nested decision-making process: firstly the firm must decide whether or not to donate, and then firms which have decided to engage in charitable giving determine how much to give. In the first stage of the estimation procedure the dependent variable "donor" (DD_i) can take on only the values of 0 or 1; this is a probit model. In contrast, the dependent variable for the second stage, "donation1" (CD_i), is a continuous variable which predicts the actual corporate donation (in hundreds of thousands of dollars) by an enterprise in industry *i,* and is estimated using OLS, incorporating the Inverse Mills Ratio[13] that was calculated from the first-stage probit. The approach taken here is therefore similar to that of Day and Devlin (1994).

[13] The Inverse Mills ratio, usually denoted $\lambda(Z)=phi(Z)/PHI(Z)$, where phi(.) is the standard normal pdf and PHI(.) is the standard normal cdf – it is the ratio of the probability to the cumulative density functions evaluated at the point at which the distribution is truncated (Greene, W, 2003) . This ratio in this paper quantifies the sample bias in the probit model (equation 1) which is then used as an instrument variable in the regression model (equation 2).

The estimating equation for the first part, the decision to donate (DD_i), can be expressed as follows:

$$DD_i = \beta_0 + \beta_1 NPROFIT_i + \beta_2 C/CONTROL_i + \sum_{h=1}^{22} \beta_{3h} IND_{ih} + \sum_{h=1}^{22} \beta_{4h} IND_{ih} * F + \sum_{h=1}^{9} \beta_{5h} CMA_{ih} + \beta_6 TAXPRICE_i + \beta_7 GTOT_i + \gamma Z_i + \varepsilon_i \quad (1)$$

The second equation, which estimates the level of charitable contributions (CD_i) of corporations which have decided to make a donation, can be expressed as follows:

$$CD_i = \beta_0 + \beta_1 NPROFIT_i + \beta_2 C/CONTROL_i + \sum_{h=1}^{22} \beta_{3h} IND_{ih} + \sum_{h=1}^{22} \beta_{4h} IND_{ih} * F + \beta_5 TAXPRICE_i + \beta_6 GTOT_i + \gamma Z_i + \varepsilon_i \quad (2)$$

where $NPROFIT_i$ is the net profit before taxes; C/CONTROL represents the country of control dummies of an enterprise; IND_h are industry dummies that assume the value 1 if the enterprise and IND_h *F, are the associated industry dummies interacted with the variable FOREIGN (F); CMA_h are dummies representing census metropolitan area where the head office an enterprise is located; $TAXPRICE_i$ is (1- the effective marginal tax rate), $GTOT_i$ is consolidated provincial-local government per capita spending on protection of persons and property, health, social services, education, the environment, and recreation and culture for each province in each year; and $\gamma \mathbf{Z}$ represents all other variables, including the disaggregated government expenditure components, the regional dummies and the Inverse Mills ratio; and i indicates the observation; and ϵ_i is the error term.

One notable difference between equation (1) and (2) is the CMA dummies. The Heckman procedure is more effective in correcting for selection bias if the independent variables used for estimating the two equations are somewhat different. In this model, the CMA variable is included in the estimating equation for the decision to donate, but

not in the estimating equation for determining the amount of the donation. It is assumed that an individual firms' decision to make a charitable donation is influenced by the fact that its peers are also supporting the community: for example, if other companies in a given CMA are being publicly identified as supporters of worthy causes (such as the United Way) then firms which do not donate to charity may suffer a loss to their reputation. However, this peer group effect is assumed to be of little consequence for determining how much to donate. The analysis therefore includes whether or not the firm is located in a major Census Metropolitan Area in its province.[14]

The reference enterprise is a small chartered bank that is Canadian-controlled, whose head office is located in the province of Quebec with sample mean values for continuous variables.

Further details on the construction of specific variables and the industry groupings can be found in the appendix.

3.4 Descriptive Statistics

Table 2 shows the mean values of all the variables used. Among the enterprises that donated, the mean donation amount varied from a high of $31,491 in 2000, to a low of $29,613 in 2003. Similarly, corporations in the data set reported a mean net profit of $154,117 in 2000, $89,584 in 2002 and $128,064 in 2003. Slightly over 3% of all corporations made at least $500 in donations to charity in each of the four years.

[14] Only one CMA was included for each province. The Heckman selection model applied to the estimating equation required proper specification for the model to work (STATA User Manual, p.70). Attempts to include all/other combination of CMAs in the estimating equation resulted in instability, signifying that the model was inadequately specified. Using just a CMA deemed to be of commercial importance in a given province seemed to provide the optimal specification for the model. The other reason as to why just one CMA per province was more amenable to model was that the potential for severe collinearity with the regional dummies was minimized.

The mean values for the debt-to-equity ratios (defined as total liabilities all divided by shareholder's equity) in Table 2 are unusually high. However, given that about 95% of all enterprises are small, these businesses are expected to carry high values of debt in relation to equity. On the other hand, the problem might simply be one of reporting: when reporting their values to the Revenue Canada Agency, small businesses are likely to display a greater tendency to overestimate their liabilities than their assets. Consequently, these mean values for the debt-to-equity ratio should be used with caution. The debt-to-equity ratio as published in the Financial and Taxation Statistics for 2003 shows that the national average should be around 1.1.

Tables 3 and 4 show corporate contributions reported on income tax returns by asset size class for 2000 and 2003. Enterprises in the asset size group of $10 million and over, although they constituted only 1.5% of the total number of enterprises, made the largest corporate contributions. In 2000, enterprises in this asset size class contributed 65% of all donations. This amount rose to 76% in 2003. However, enterprises with a total asset size below $1 million only gave 13.9% of all contributions, but in terms of number of enterprises, this group of companies accounted for over 85% in 2000.

When firms are stratified by operating revenue (see Table 5), only 44.7% of enterprises classified as large did not give compared to 97% for small and 79% for medium-sized firms. Looking at the country of control, over 25% of all foreign-controlled corporations gave at least $500 as compared to 3% of Canadian-controlled corporations. Within the various industrial groupings, more manufacturers, followed by the finance and insurers, gave to charity. The manufacturers, chartered banks, credit

unions and insurance companies all recorded giving within the donation size range of $500,000 and over to charity in 2000.

4. THE RESULTS

Tables 6A and 7A provide the results of the estimations for both the decision to donate and the level donated, respectively, under the specification with total per capita government expenditure. Tables 6B and 7B provide the comparable estimates when per capita government expenditure is decomposed into its six constituent parts. Notice that the model has been estimated separately for four years: 2000-2003. The problem of heteroskedasticity has been addressed using White's (1980) correction for heteroskedasticity of unknown form. For the probit model, the marginal effects are presented in order to facilitate the discussion of the impact of each determinant on corporate giving. The marginal effect tells us the impact on the probability of donating (evaluated at the sample means) of an infinitesimal change in the given independent variable. The primary interest is in coefficients with a probability value of 0.05 (5%) or less[15]. However, with sample size of the magnitude used in this paper, the concept of statistical significance becomes less meaningful. The focus therefore is on economic significance. Also, readers should note that the dependent variable for tables 7(A and B) is financial contributions in 100,000s. The predicted probability of donating by the reference enterprise is 4.3% in 2000 (see table 9)[16].

[15] The probability value or p-value is defined as the lowest significance level at which a null hypothesis can be rejected (Gujarati, 1995, p.132). Note that *t* ratios at or greater than 1.96 denote significance at the 5% level.

[16] The predicted probability of the reference enterprise (RE) was calculated first by finding the Index of the RE by adding up the constant term (which represents the RE when all other coefficients are set to zero) plus the products of the sample mean values and their associated coefficient for each of the continuous

The discussion follows the order of the variables presented in tables 6 and 7 and focuses on the estimate coefficients and marginal effects presented in the "A" tables, unless otherwise stated. The importance of the "B" tables is highlighted in the discussion of the effect of government spending on corporate giving. It is worth noting at this juncture that the p-values calculated in Tables 6A&B are for the marginal effects presented [17]. Table 9 provides an insight as to the decision to donate by foreign-controlled enterprises compared to their Canadian counterparts.

Tables 6A and 7A reveal a positive and statistically significant relationship between the probability of donating and net profit (NPROFIT) over the four years. For instance, in 2000 the predicted probability of donating, evaluated at the sample mean, is 0.0252. If net profit were to increase by 1unit ($10,000) then the probability of donating would rise by 0.0017 to 0.0269. In other words, a $10,000 increase in net profit would increase the probability of corporate donating by 6.75%. This effect is very similar across the years. There is a positive statistically significant relationship between the probability of donating and net profit over the four years.

Tables 7A and B reveal that net profit also has a positive effect on the amount of corporate giving, an effect which is not very statistically strong in the year 2002. To understand the importance of net profit on the amount donated, table 8 presents the elasticity estimates for a number of the determinants. Net profit has an elasticity of between 0.005 and 0.012 over the four years of this study. Thus, it has a highly inelastic

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variables; the probability is then calculated by solving the standard normal cumulative distribution function with respect to the index value. New probabilities are then calculated by using new Index calculated with more non-zero dummy variables (see Table 9 for the outcome for different combinations of probabilities based on the RE and manufacturers).

[17] The marginal effects reported for the interaction dummies (IND*F) should be interpreted with caution as the software may have treated these as ordinary dummies and not truly as interactive terms.

impact on giving. Based on their elasticity estimates, Day and Devlin (2004 p.415) also arrived at a similar conclusion. But, barring methodological differences, these results are somewhat different from the US-based study by McElroy and Siegfried (1985 p.25) who concluded that "corporate contributions can be expected on average to increase by the same percentage as the increase in pre-tax net income." The results from this analysis support the view that corporate giving reflects managerial discretion.

The second financial variable is the debt-to-equity ratio (DTEQUITY). In the decision to give, Table 6A suggests that this variable is only statistically significant in 2002. It is interesting though to note from the sign of the marginal effects for all years except 2003 that corporate managers would tend towards a higher probability of giving to charity when the corporation employs relatively higher debt capitalization. However, given that the marginal effects are almost zero, these results tend to support theory that the effect could either be negative or positive. As well, the data suggests that the debt-to-equity ratio has very little bearing on the level of corporate donation. The estimated coefficient on the third financial variable included in the specification is the return on assets (RTOA), - a measure of corporate profitability. The estimated coefficient on this variable was also only statistically significant in 2000 and 2002. The year 2000 was a strong year in the corporate markets, however the year 2001 was a watershed year – with the so-called "dot.com" crash and the shocking events of September 2001. 2002 was similarly difficult on the financial front, with the fallout from various corporate scandals (Enron, World Com) and the events of the previous year. Clearly, this suggests that the corporate financial variables may be sensitive to exogenous shocks, and thus are difficult to pin

down from the point of view of their effect on corporate giving, except for net profits which seem to have a reasonably stable effect on giving.

The second group of variables in the econometric model are concerned with industry structure. An interesting question is whether donations are sensitive to the size of the firm (as opposed to their net profits). "Large" firms may be pressured to demonstrate leadership on behalf of the industry. By virtue of their greater visibility, they are more likely to be solicited by charities, and therefore more likely to receive proposals of demonstrable benefit to the community and that are worthy of support. Also, small enterprises are usually family businesses whose decisions to donate are less likely to be the outcome of a planned process (Thompson et al.,1993, p.36). In contrast, large firms have well-established programs for channelling corporate contributions. The estimated coefficients per Table 6 are economically and statistically significant. The probability that a LARGE firm will make a charitable donation is, *ceteris paribus*, 0.4197 more likely than a SMALL firm (reference firm) of the same type. In contrast, size does not appear to influence the amount donated: in each of the four years of the analysis, the coefficient estimates related to the size of the firm in the equation estimating the actual amount of the donation are not statistically different from zero. Jones and Laudadio (1991) suggest that this may be explained by the fact that large firms are more likely to have some degree of market power, and therefore benefit less from product differentiation (Jones and Laudadio, 1991, p.1241).

Looking more closely at the coefficients for the industry dummies, it is evident that all industries have a lower probability of giving, all things being equal, as compared

to the chartered banks (the reference industry) – although not all of the differences are statistically significant.

We turn now to the third group of variables, which reflect the impact of public policy on corporate donations. Recall that government policy can affect donations in two main ways: through the preferential tax treatment of corporate donations, and by direct expenditures in program areas which may crowd out money given by corporations. Looking first at the probability of giving, one finds that the variable TAXPRICE has the expected negative and statistically significant estimated coefficient, except in the year 2003. However, the estimated coefficient for TAXPRICE in the probability of giving, irrespective of sign, is very small, meaning that this coefficient is of little economic significance.

Strikingly, the results reported in Table 8 suggest that the taxprice variable does not seem to have any explanatory power with respect to the level of corporate contributions. This result contrasts strikingly with the findings of Day and Devlin (2004) who found corporate donations quite responsive to changes in the tax rate. The difference between their findings and these results may relate to the fact that their elasticity numbers may be picking up the variability in the use of corporate tax credits. Note that during the period covered by this study there were very few tax changes that would have affected the effective marginal tax rate, other than the phasing in of the general tax reductions.[18] Clearly, it would be worthwhile to give careful additional study to the impact of the tax price on the actual level of corporate giving.

Examining the relationship between government expenditure and the decision to donate, Table 6A would appear that government expenditure crowds out corporate

[18] See the latest edition of the Income Tax Act.

philanthropy except in 2000, the first year of the sample. In the year 2000, corporate donations marginally increase with government expenditures: every $1 in per capita expenditures increases the probability that a corporation will make a charitable contribution by 0.0002. This suggests a complementary relationship between the probability of giving and government spending – as found in Day and Devlin (2004). However, in all the subsequent years, the decision to donate and government spending are negatively related, suggesting that government spending is crowding-out corporate philanthropy.

However, following Day and Devlin (2004), government spending was also disaggregated into its six constituent parts. And, in keeping with their results, it was found that the *type* of government spending mattered. For instance, Table 6B shows that in 2000, the decision to give was positively related to spending in protection, health and cultural areas, but negatively related to spending in social services, education and the environment. Generally, Day and Devlin found corporate donations are complementary to government expenditure. Nevertheless, the comparability in this case is somewhat suspect given that this paper did not (due to data constraints) impose controls as did Day and Devlin to ensure that government spending and corporate donations "are not merely responding simultaneously to the same exogenous stimuli." (p. 411)

With respect to the amount of money donated, as opposed to the probability of donating, government spending in total only matters in the first year of data set, where the estimated coefficient is negative (see table 7A). Thus, in 2000, it would seem that government spending crowded out corporate donations. Indeed, table 8 reveals a high elasticity value (-1.4) for 2000 which implies that corporate donors were quite responsive

to government expenditure. However, for the remaining three years of the sample, government spending is not a statistically significant determinant of the amount of corporate giving. When government spending is disaggregated (table 7B), none of the expenditure areas seem to matter when it comes to explaining corporate donations. The only coefficients, however, that seemed to be affected by the disaggregation of government spending were those of the regional dummy variables. This is may suggest a sign of multicollinearity between the regional dummies and the government spending variables. The reason being, while the government expenditure are provincial, corporations are associated with a province strictly based on the location of the head office. This means that it is difficult to offer precise interpretation of the coefficients of the government spending variables and the regional dummy variables, since they are closely related with each other. This issue is worth investigating in future research.

An interesting pattern appears with respect to the third group of variables, those reflecting the issue of the country of control. Being foreign owned clearly matters in the year 2000: the estimated coefficients for USA and OTHERNAT are both economically and statistically significant. Table 6A suggests that the probability that a foreign-controlled firm chose to make a charitable contribution in 2000 and in 2001was substantially less, *ceteris paribus*, than their Canadian-owned counterparts. However, in 2002 and 2003, being foreign owned does not matter at all when it comes to the probability of giving. This could be due to the likelihood of increased integration between US and Canadian markets as a result of the continued influence of free trade, and growth in trade.

The country of control variables were also important with respect to the determination of the amount of money donated. Once again, however, the effect was not consistent over the four years of the sample. According to table 7A, in the year 2000, foreign-controlled enterprises gave significantly less to charities than did their Canadian-controlled counterparts. In 2001 and 2002, however, there was no statistical difference between the amounts given by these two groups of firms. By 2003, the estimated coefficients signifying the level of donation by enterprises controlled in the USA and other countries are once again negative and large indicating that foreign ownership leads to lower donations, *ceteris paribus*.

One may speculate about what explains the inconsistent pattern. The events of 9/11 and the market disasters of 2002 undoubtedly played a role. Overall, the results suggest that being foreign owned has potentially a negative impact on donations in Canada, and certainly not a positive impact, thus negating the hypothesis that foreign firms would give more to Canadian charities in an effort to counter any negative bias against foreign companies. The results appear to support the alternative hypothesis that foreign-controlled enterprises will donate less than their Canadian-controlled counterparts. However, if the 'advertising spillover' argument of Jones and Laudadio (1991) is taken seriously, then this does not explain why there is no difference between the estimated coefficients for USA and OTHERNAT.

Greater insight into the way in which the country of ownership influences giving behaviour can be obtained by examining the estimated coefficients for the dummy variables obtained by interacting the industry and country of control dummies. However,

when we examine the industry dummies for the foreign-controlled enterprises, the picture is somewhat different.

Table 9 provides the predicted probabilities of donating by manufacturers compared to the reference enterprise over the period of this study. Manufacturers were chosen because data (table 5) suggests that they are one of the highest givers in all donation size groups. This table gives calculated probabilities of donating under two scenario: Canadian vs. US-controlled, and Canadian vs. Foreign-controlled[19].

The probability of donating by the reference enterprise (RE) rose sharply from 4.3% in 2000 to 41% in 2001 and then gradually declined through 2003 to 11.2%. In fact all the different combination of manufacturers tested displayed similar trend.

In 2000, if the reference enterprise where US-controlled, its probability of donating was only 0.8% compared to 4.3%. However, the picture is different if the reference enterprise where a manufacturer and is compared to a manufacturer with foreign-controlled (option B). Table 9 shows that a foreign-controlled manufacturer would have a much higher probability of giving than their Canadian counterpart.

It is also striking to note that 2001 (the year of the 9/11 disaster) registered the highest probability of giving by all categories of manufacturers.

In terms of amount donated by manufacturers, table 7A suggests positive coefficient in all four years, of which only the year 2003 was statistically significant. In 2003, manufacturers would donate 34.6% more to charity over that of the reference enterprise.

The fourth group of variables was selected to detect regional differences. Looking at the estimated coefficients for the provincial dummies, it is evident that there

[19] The results for foreign-controlled (option b) is intended to capture the effect from other non-US foreign-controlled corporations.

are economically and statistically significant regional differences in corporate giving. As compared to Quebec, the reference region, corporations in all other regions give more money. Firms headquartered in the Territories appear to be next on the list of low givers, followed by those in British Columbia. There is no clear pattern, however, with respect to the other three regions and proper evaluation of the impact of this variable requires further investigation.

As discussed above, it may be hypothesized that corporations which are located in urban areas where other firms have established charitable contribution programs may feel pressured into following suit. By and large, the hypothesis that firms within a CMA are more likely to give because of peer pressure holds true – with one notable exception. The exception is the Toronto CMA where it was found that these firms give less relative to non-CMA and non-mentioned CMA firms. Notice, however, that there are 9 other CMAs in Ontario (Oshawa, Ottawa-Gatineau (partly in Ontario and partly in Quebec), St.Catherines-Niagara, Hamilton, Kitchener, London, Windsor, Sudbury and Thunder Bay). It may be that firms in the Toronto CMA are no different than those in Oshawa, Ottawa, and so on, which explains why Toronto firms are not showing up as being different from all others.

5. CONCLUDING REMARKS

To contextualize the above results, readers must keep in mind that the years 2000-2003 can be characterized as expansionary times. However, 9/11 in 2001 and major corporate scandals such as Enron and WorldCom in 2002 did underscore these in-

between years with economic turbulence, and the possibility of a 'hangover' effect unto subsequent years.

Within the current tax regime, taxes have very little effect on both the decision by corporations to give and the amount given. Since 1996, the deduction limit for corporate charitable donations has been raised from 20% to 75% of income for tax purposes. The data do not appear to support the notion that corporations have displayed increased giving behaviour in response to this generous limit. Also, given this generous limit, corporations should have no reason to classify their donation expenditure otherwise. In recent years, philanthropic organizations in the US have expressed concerns that corporations are more and more opting for donations in kind. It is not clear if a similar trend is observable in Canada (although such in-kind donations are supposedly captured in this data set).

One policy action to encourage corporate generosity might be the introduction of corporate donation credits similar to other credits such as the investment tax credit and the manufacturing and processing deduction. One would expect that a corporate donation tax credit system that offers corporations a "taxprice" that is at least equivalent to the "taxprice" associated with the marginal tax rate, may provide greater incentive for corporate philanthropy. This is a likely subject for future research.

This data would suggest that foreign-controlled corporations (multinationals in general) are yet to engage in aggressive strategic giving. Presently, their giving appears to be industry-specific. Where most of these corporations are dominant in their industries they probably have not seen the need for improved CSR. Or simply, there are other determinants of corporate giving beyond the profit maximization and the managerial

discretion model that is yet to be captured by the type of data presently used in most empirical analysis. Size is a vital determinant as to whether or not a corporation gives to charity but there is no consensus on what criteria to apply in order to obtain the optimum size composition.

Given that only 3% of all corporations within this data set who filed a corporate income tax return gave to charity, there remain ample opportunities for growth in corporate generosity. A move towards a more balanced corporate giving strategy which seeks to align its pure philanthropic endeavours with its pure profit goals may very well be the option that places society in the highest social welfare contour.

It is hoped that the results from this data set would generate further research and discussion in the area of corporate giving. Given that there are some corporations that for whatever reason are regular givers, are there particular structural characteristics that might set these corporations apart from those who do not give? Another interesting study could be to compare the donating behaviour of US-owned corporate donors in Canada by industry to the behaviour of the same industries in their home country. Such an investigation would show if these corporations are strictly tied to donating behaviour at home or are influenced by other factors. In Canada, a separate study of corporate donors by province would provide insight as to the extent to which corporate donating behaviour is influenced by the donating behaviour of the individual residents of the province. And finally, it would be worthwhile to investigate if there are apparent differences in terms of financial performance by corporations who are regular givers and those who are not.

APPENDIX

All data used in this paper, except for the data on per capita government spending which was calculated using population and government expenditure data from CANSIM (see Tables 051-0005 and 385-001), are from the Industrial Organization and Finance Division, Statistics Canada. Definitions for certain variables are adapted from those used by Statistics Canada. See Table 1 below for the definition of all the variables used.

TABLE 1. DEFINITION OF VARIABLES USED IN ANALYSIS

VARIABLE NAME	DEFINITION
DONOR	Equal to 1 if an enterprise donated over $500 to charity as reflected on its corporate tax return(s) (in $100,000s)
DONATION1	Amount donated by an enterprise (amounts over $500) as reflected on its corporate tax return(s) (in $100,000s)
DTEQUITY	Debt to Equity ratio of an enterprise. Defined as all borrowings plus loans and accounts with affiliates, all divided by total shareholder's equity
RTOA	Return on Asset: profit after taxes but before extraordinary gains divided by total assets
LARGE	Equal to 1 if operating revenue of enterprise is greater than $75 million
MEDIUM	Equal to 1 if operating revenue of enterprise is greater than $5 million but less than or equal to $75 million
SMALL	Equal to 1 if operating revenue of enterprise is equal to or less than $5 million (reference group)
RELSIZE	Operating revenue of enterprise i in industry j divided by total operating revenue of industry j, i, j =1-22
CANADA	Equal to 1 if enterprises' country of control is Canada (reference group)
USA	Equal to 1 if enterprises' country of control is USA
OTHERNAT	Equal to 1 if enterprises' country of control is country other than Canada or the USA
FOREIGN	Equal to 1 if enterprises' country of control is USA and OTHERNAT
TAXPRICE	(1- Effective marginal tax rate), where Effective marginal tax rate = total taxes paid less capital taxes paid, all divided by net income before taxes

TABLE 1. DEFINITION OF VARIABLES CONTD.

GTOT	Total local and provincial and territorial government spending per capita (in hundreds of dollars)
PROTECPP	Total per capita government spending on protection of persons and property (in hundreds of dollars)
HEALTH	Total per capita government spending on health (in hundreds of dollars)
SOCSERV	Total per capita government spending on social services (in hundreds of dollars)
EDUCATN	Total per capita government spending on education (in hundreds of dollars)
ENVIRON	Total per capita government spending on environment (in hundreds of dollars)
RECCULTU	Total per capita government spending on recreation and culture (in hundreds of dollars)
HALIFCMA	Equal to 1 if headquarter of enterprise is located in the Halifax CMA.
MONTCMA	Equal to 1 if headquarter of enterprise is located in the Montréal CMA.
OTTGATCMA	Equal to 1 if headquarter of enterprise is located in the Ottawa-Gatineau CMA.
TORONCMA	Equal to 1 if headquarter of enterprise is located in the Toronto CMA.
WINNCMA	Equal to 1 if headquarter of enterprise is located in the Winnipeg CMA.
CALGCMA	Equal to 1 if headquarter of enterprise is located in the Calgary CMA.
VANCCMA	Equal to 1 if headquarter of enterprise is located in the Vancouver CMA.
STJNFCMA	Equal to 1 if headquarter of enterprise is located in the St. John's CMA.
STJNBCMA	Equal to 1 if headquarter of enterprise is located in the Saint John CMA.
SASKTNCMA	Equal to 1 if headquarter of enterprise is located in the Saskatoon CMA.
ATLANTIC	Equal to 1 if province is located in Atlantic Canada. This includes NB, NS, PEI, Nfld
ONTARIO	Equal to 1 if province is Ontario
PRAIRIES	Equal to 1 if province is located in the prairies; this includes MN, SK, AB.
QUEBEC	Equal to 1 if province is Quebec (reference group)
BC	Equal to 1 if province is British Columbia
TERRIT	Equal to 1 if located in territories; this includes NV, NWT, YT.

TABLE 1. DEFINITION OF VARIABLES CONTD.

NAICS* 2002	VARIABLE NAME	DEFINITION
111, 112, 113, 114, 115	AGRIC	Equal to 1 if Agriculture, Forestry, Fishing and Hunting
211, 213	OILGAS	Equal to 1 if Oil and Gas Extraction and Support Activities
212	MINING	Equal to 1 if Mining (except oil and gas)
22	UTILITY	Equal to 1 if Utilities
23	CONSTR	Equal to 1 if Construction
31, 32, 33	MANUF	Equal to 1 if Manufacturing
41	WHLSLE	Equal to 1 if Whole sale Trade
44, 45	RETAIL	Equal to 1 if Retail Trade
48, 49	TRANSP	Equal to 1 if Transportation and Warehousing
51	INFCUL	Equal to 1 if Information and Cultural Industries
5221	DEPINT	Equal to 1 if Depository Credit Intermediation (reference group)
5222	NDEP	Equal to 1 if Non-Depository Information
52231, 52232, 52239	ACTCRD	Equal to 1 if Activities Related to Credit Intermediation
5231, 5232, 5239	SECUCO	Equal to 1 if Securities Commodity Contracts, and Other Financial Investment and Related Activities
524	INSREL	Equal to 1 if Insurance Carriers and Related Activities
53	RESTAT	Equal to 1 if Real Estate and Rental and Leasing
54	PROFSE	Equal to 1 if Professional, Scientific and Technical Services
56	ADMIN	Equal to 1 if Administrative and Support, Waste Management and Remediation Services
61, 62	EDHSOC	Equal to 1 if Educational, Healthcare and Social Assistance Services
71	ARTENT	Equal to 1 if Arts, Entertainment and Recreation
72	ACFOOD	Equal to 1 if Accommodation and Food Services
811, 812	PERSER	Equal to 1 if Repair, Maintenance and Personal Services
111, 112, 113, 114, 115	AGRICF	Equal to 1 if Agriculture, Forestry, Fishing and Hunting dummy times foreign
211, 213	OILGASF	Equal to 1 if Oil and Gas Extraction and Support Activities dummy times foreign

TABLE 1. DEFINITION OF VARIABLES CONTD.

NAICS* 2002	VARIABLE NAME	DEFINITION
212	MININGF	Equal to 1 if Mining (except oil and gas) dummy times foreign
22	UTILITYF	Equal to 1 if Utilities dummy times foreign
23	CONSTRF	Equal to 1 if Construction dummy times foreign
31, 32, 33	MANUFF	Equal to 1 if Manufacturing dummy times foreign
41	WHLSLEF	Equal to 1 if Whole sale Trade dummy times foreign
44, 45	RETAILF	Equal to 1 if Retail Trade dummy times foreign
48, 49	TRANSPF	Equal to 1 if Transportation and Warehousing dummy times foreign
51	INFCULF	Equal to 1 if Information and Cultural industry dummy times foreign
5221	DEPINTF	Equal to 1 if Depository Credit Intermediation dummy times foreign (reference group)
5222	NDEPF	Equal to 1 if Non-Depository Information dummy times foreign
52231, 52232, 52239	ACTCRDF	Equal to 1 if Activities Related to Intermediation dummy times foreign
5231, 5232, 5239	SECUCOF	Equal to 1 if Securities Commodity Contracts, and Other Financial Investment and Related Activities dummy times foreign
524	INSRELF	Equal to 1 if Insurance Carriers and Related Activities dummy times foreign
53	RESTATF	Equal to 1 if Real Estate and Rental and Leasing dummy times foreign
54	PROFSEF	Equal to 1 if Professional, Scientific and Technical Services dummy times foreign
56	ADMINF	Equal to 1 if Administrative and Support, Waste Management and Remediation Services dummy times foreign
61, 62	EDHSOCF	Equal to 1 if Educational, Healthcare and Social Assistance Services dummy times foreign
71	ARTENTF	Equal to 1 if Arts, Entertainment and Recreation dummy times foreign
72	ACFOODF	Equal to 1 if Accommodation and Food Services dummy times foreign
811, 812	PERSERF	Equal to 1 if Repair, Maintenance and Personal Services dummy times foreign

* North American Industrial Classification System. NAICS groupings are provided for ease of reference and comparability to other industrial classifications.

Table 2 Summary Statistics - Corporate Charitable Contributions in Canada

Variable	Mean 2000	Mean 2001	Mean 2002	Mean 2003
donor	0.0321	0.0318	0.0325	0.0323
donation1 ($1,000s)	31.4910	30.7390	30.9140	29.6130
nprofit ($1,000s)	154.1170	110.6300	89.5840	128.0640
dtequity	220.1160	262.7983	253.3383	255.5889
rtoa	0.0538	-0.0200	-0.1726	-0.1830
large	0.0027	0.0027	0.0027	0.0027
medium	0.0401	0.0400	0.0407	0.0407
small	0.9571	0.9573	0.9566	0.9566
relsize	0.0000	0.0000	0.0000	0.0000
canada	0.9921	0.9932	0.9935	0.9928
usa	0.0042	0.0039	0.0037	0.0040
othernat	0.0037	0.0029	0.0028	0.0032
foreign	0.0079	0.0068	0.0065	0.0072
agric	0.0510	0.0510	0.0513	0.0510
oilgas	0.0010	0.0009	0.0009	0.0009
mining	0.0090	0.0092	0.0094	0.0093
utilit	0.0008	0.0009	0.0009	0.0009
constr	0.1236	0.1247	0.1237	0.1245
manuf	0.0690	0.0671	0.0662	0.0646
whlsle	0.0735	0.0730	0.0722	0.0709
retail	0.1112	0.1097	0.1091	0.1082
transp	0.0475	0.0484	0.0486	0.0488
infcul	0.0169	0.0176	0.0178	0.0180
depint	0.0001	0.0001	0.0001	0.0001
ndep	0.0067	0.0062	0.0058	0.0055
actcrd	0.0008	0.0009	0.0009	0.0010
secuco	0.0483	0.0447	0.0418	0.0398
insrel	0.0092	0.0088	0.0087	0.0086
restat	0.0813	0.0773	0.0782	0.0778
profse	0.1280	0.1359	0.1400	0.1433
admin	0.0458	0.0469	0.0472	0.0478
edhsoc	0.0390	0.0382	0.0390	0.0403
artent	0.0180	0.0182	0.0183	0.0184
acfood	0.0602	0.0598	0.0594	0.0595
perser	0.0591	0.0604	0.0603	0.0606

Table 2 Summary Statistics - Corporate Charitable Contributions in Canada Contd.

Variable	Mean 2000	Mean 2001	Mean 2002	Mean 2003
agricF	0.0001	0.0001	0.0001	0.0001
oilgasF	0.0000	0.0000	0.0000	0.0000
miningF	0.0002	0.0001	0.0001	0.0001
utilitF	0.0000	0.0000	0.0000	0.0000
constrF	0.0002	0.0002	0.0002	0.0002
manufF	0.0018	0.0016	0.0016	0.0016
whlsleF	0.0020	0.0016	0.0016	0.0018
retailF	0.0003	0.0003	0.0003	0.0003
transpF	0.0003	0.0002	0.0002	0.0003
infculF	0.0002	0.0002	0.0002	0.0002
depintF	0.0001	0.0001	0.0001	0.0000
ndepF	0.0001	0.0001	0.0001	0.0001
actcrdF	0.0000	0.0000	0.0000	0.0000
secucoF	0.0005	0.0004	0.0003	0.0004
insrelF	0.0002	0.0001	0.0001	0.0001
restatF	0.0007	0.0005	0.0004	0.0006
profseF	0.0006	0.0006	0.0006	0.0007
adminF	0.0002	0.0002	0.0002	0.0003
edhsocF	0.0001	0.0001	0.0001	0.0001
artentF	0.0001	0.0000	0.0000	0.0000
acfoodF	0.0002	0.0002	0.0002	0.0002
perserF	0.0001	0.0001	0.0001	0.0001
halifcma	0.0089	0.0089	0.0089	0.0088
montcma	0.1150	0.1139	0.1128	0.1126
toroncma	0.1702	0.1746	0.1749	0.1769
winncma	0.0158	0.0155	0.0153	0.0150
calgcma	0.0497	0.0518	0.0525	0.0531
vanccma	0.0875	0.0877	0.0865	0.0866
stjnfcma	0.0047	0.0045	0.0045	0.0046
stjnbcma	0.0026	0.0025	0.0025	0.0024
sasktncma	0.0059	0.0058	0.0059	0.0059
taxprice	0.8720	0.8812	0.8848	0.8728
gtot	0.0061	0.0065	0.0064	0.0072
protecpp	0.0005	0.0005	0.0005	0.0005
health	0.0021	0.0022	0.0022	0.0025

Table 2 Summary Statistics - Corporate Charitable Contributions in Canada Contd.

Variable	Mean 2000	Mean 2001	Mean 2002	Mean 2003
socserv	0.0013	0.0014	0.0013	0.0014
educatn	0.0019	0.0019	0.0019	0.0021
environ	0.0002	0.0003	0.0002	0.0003
reccultu	0.0002	0.0003	0.0002	0.0003
atlantic	0.0561	0.0557	0.0552	0.0549
ontario	0.3410	0.3463	0.3471	0.3493
quebec	0.2392	0.2358	0.2338	0.2327
prairies	0.1980	0.2036	0.2055	0.2061
bc	0.1559	0.1559	0.1544	0.1544
territ	0.0027	0.0026	0.0026	0.0026

TABLE 3 CORPORATE CONTRIBUTIONS REPORTED ON CORPORATE INCOME TAX RETURNS BY ASSET SIZE CLASS, 2000*

Asset Size (thousands of dollars)	Percent of Total Enterprises	Percent of All Contri-butions	Contributing Enterprises as % in Enterprises in Asset Size Class
	%	%	%
1-25	19.19	0.35	0.32
25-50	9.56	0.36	0.76
50-100	12.89	0.53	1.08
100-500	32.92	6.16	2.23
500-1,000	10.72	5.79	4.27
1,000-5,000	11.57	11.68	8.60
5,000-10,000	1.60	9.53	17.30
10,000-25,000	0.90	12.00	24.53
25,000-100,000	0.44	20.16	33.73
100,000-1,000,000	0.17	10.65	48.09
1,000,000 and over	0.04	22.80	65.34
Total	100.00	100.00	3.21

*The format of this table is adapted from McElroy and Siegfried (1985).
Source: Industrial Organization and Finance Division, Statistics Canada.

TABLE 4 CORPORATE CONTRIBUTIONS REPORTED ON CORPORATE INCOME TAX RETURNS BY ASSET SIZE CLASS, 2003*

Asset Size (thousands of dollars)	Percent of Total Enterprises	Percent of All Contri-butions	Contributing Enterprises as % in Enterprises in Asset Size Class
	%	%	%
1-25	17.65	0.18	0.42
25-50	9.80	0.19	0.72
50-100	13.10	0.46	1.08
100-500	33.23	3.10	2.24
500-1,000	10.92	2.98	4.30
1,000-5,000	12.12	10.49	8.09
5,000-10,000	1.65	6.49	16.41
10,000-25,000	0.91	8.17	24.45
25,000-100,000	0.44	16.07	35.21
100,000-1,000,000	0.16	16.67	49.81
1,000,000 and over	0.04	35.21	68.56
Total	100.00	100.00	3.23

*The format of this table is adapted from McElroy and Siegfried (1985).
Source: Industrial Organization and Finance Division, Statistics Canada.

TABLE 5 CORPORATE CONTRIBUTIONS REPORTED ON CORPORATE INCOME TAX RETURNS BY SIZE, COUNTRY OF CONTROL AND INDUSTRIAL GROUPING, 2000

	Percent contribution by firm size		
Donation Size	Small	Medium	Large
$	%	%	%
0 or < 500*	97.7	79.3	44.7
500 < 10,000	2.0	14.0	14.0
10,000 < 50,000	0.3	4.9	20.5
50,000 < 100,000	0.0	0.8	6.5
100,000 < 500,000	0.0	0.7	8.8
500,000 and over	0.0	0.3	5.5
Total	**100.0**	**100.0**	**100.0**

	Percent contribution by country of control		
Donation Size	Canada	USA	Other
$	%	%	%
0 or < 500*	97.0	74.5	78.8
500 < 10,000	2.4	12.3	11.3
10,000 < 50,000	0.5	7.6	6.4
50,000 < 100,000	0.1	2.3	1.2
100,000 < 500,000	0.1	2.1	1.7
500,000 and over	0.0	1.2	0.6
Total	**100.0**	**100.0**	**100.0**

	Percent contribution by industrial group				
Donation Size	Resource	Manufacturers	Trades	Finance & Insurance	All Others
$	%	%	%	%	%
0 or < 500*	97.4	93.0	96.0	95.5	97.5
500 < 10,000	1.9	4.8	3.1	3.0	2.0
10,000 < 50,000	0.5	1.5	0.7	0.9	0.3
50,000 < 100,000	0.1	0.3	0.1	0.2	0.0
100,000 < 500,000	0.1	0.3	0.1	0.2	0.0
500,000 and over	0.0	0.1	0.0	0.1	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Data Source: Industrial Organization and Finance Division, Statistics Canada

* donations under $500 are rounded to zero, and donations over $500 but no greater than $1,000 are rounded to $1,000.

Table 6A Corporate Decision to make Charitable Contributions in Canada (Probit estimates) for 2000 - 2003* with total government expenditure

Independent Variable	2000 Marginal Effect	P>|z|	2001 Marginal Effect	P>|z|	2002 Marginal Effect	P>|z|	2003 Marginal Effect	P>|z|
nprofit	0.0017	0.007	0.0021	0.005	0.0019	0.044	0.0055	0.000
dtequity	-0.0004	0.077	-0.0002	0.163	-0.0005	0.003	0.0000	0.799
rtoa	0.0001	0.000	0.0080	0.148	0.3355	0.001	0.0196	0.555
large	0.4197	0.000	0.4044	0.000	0.3992	0.000	0.3927	0.000
medium	0.1586	0.000	0.1584	0.000	0.1615	0.000	0.1573	0.000
relsize	0.0604	0.700	0.0430	0.793	1.2880	0.014	-0.0003	0.999
usa	-0.0215	0.000	-0.0196	0.000	0.0025	0.892	-0.0017	0.916
othernat	-0.0211	0.000	-0.0187	0.000	0.0056	0.778	0.0038	0.849
agric	-0.0240	0.000	-0.0141	0.028	-0.0167	0.000	-0.0179	0.000
oilgas	-0.0208	0.000	-0.0106	0.174	-0.0122	0.052	-0.0107	0.145
mining	-0.0235	0.000	-0.0159	0.001	-0.0193	0.000	-0.0195	0.000
utilit	-0.0241	0.000	-0.0219	0.000	-0.0219	0.000	-0.0224	0.000
constr	-0.0275	0.000	-0.0171	0.009	-0.0190	0.000	-0.0200	0.000
manuf	-0.0205	0.000	-0.0076	0.405	-0.0107	0.122	-0.0130	0.053
whlsle	-0.0227	0.000	-0.0117	0.127	-0.0144	0.013	-0.0157	0.008
retail	-0.0276	0.000	-0.0175	0.005	-0.0190	0.000	-0.0205	0.000
transp	-0.0257	0.000	-0.0190	0.000	-0.0206	0.000	-0.0219	0.000
infcul	-0.0225	0.000	-0.0153	0.004	-0.0173	0.000	-0.0176	0.000
ndep	-0.0227	0.000	-0.0160	0.001	-0.0162	0.000	-0.0170	0.000
actcrd	-0.0194	0.000	-0.0149	0.011	-0.0109	0.114	-0.0137	0.023
secuco	-0.0206	0.000	-0.0093	0.257	-0.0129	0.028	-0.0139	0.022
insrel	-0.0080	0.250	0.0172	0.350	0.0120	0.394	0.0095	0.514
restat	-0.0251	0.000	-0.0149	0.020	-0.0170	0.001	-0.0174	0.001
profse	-0.0253	0.000	-0.0139	0.069	-0.0168	0.005	-0.0181	0.004
admin	-0.0236	0.000	-0.0148	0.014	-0.0172	0.000	-0.0180	0.000
edhsoc	-0.0179	0.000	-0.0032	0.766	-0.0052	0.543	-0.0067	0.446
artent	-0.0232	0.000	-0.0176	0.000	-0.0195	0.000	-0.0203	0.000
acfood	-0.0256	0.000	-0.0174	0.001	-0.0195	0.000	-0.0201	0.000
perser	-0.0267	0.000	-0.0204	0.000	-0.0216	0.000	-0.0224	0.000
agricF	0.0524	0.343	0.0383	0.485	-0.0162	0.156	0.0006	0.981
oilgasF	0.2426	0.025	0.1837	0.094	0.0040	0.878	0.0353	0.446
miningF	0.1499	0.050	0.0844	0.176	0.0543	0.255	0.0178	0.577
utilitF	0.0918	0.411	0.1455	0.285	-0.0064	0.801	0.0056	0.875
constrF	0.1012	0.089	0.0954	0.144	0.0240	0.457	0.0137	0.611
manufF	0.1528	0.022	0.1450	0.058	0.0257	0.400	0.0273	0.401
whlsleF	0.1272	0.035	0.1029	0.104	0.0115	0.623	0.0163	0.544
retailF	0.0743	0.124	0.0863	0.152	-0.0043	0.783	-0.0010	0.957
transpF	0.1984	0.017	0.1782	0.049	0.0263	0.424	0.0340	0.368
infculF	0.1714	0.030	0.1041	0.125	0.0075	0.745	0.0265	0.447
ndepF	0.0395	0.342	0.1090	0.154	-0.0036	0.849	-0.0147	0.156
actcrdF					-0.0118	0.565	0.1035	0.518
secucoF	0.0750	0.114	0.1101	0.107	0.0128	0.614	0.0068	0.765

Table 6A Corporate Decision to make Charitable Contributions in Canada (Probit estimates) for 2000 - 2003* with total government expenditure Contd.

Independent Variable	2000 Marginal Effect	P>|z|	2001 Marginal Effect	P>|z|	2002 Marginal Effect	P>|z|	2003 Marginal Effect	P>|z|
insrelF	0.0216	0.451	0.0144	0.608	-0.0190	0.001	-0.0211	0.000
restatF	0.1013	0.070	0.1061	0.113	0.0138	0.591	0.0137	0.603
profseF	0.1428	0.032	0.0931	0.128	0.0112	0.638	0.0323	0.364
adminF	0.1076	0.077	0.0910	0.148	0.0080	0.729	0.0044	0.838
edhsocF	0.0928	0.170	0.0575	0.321	0.0046	0.854	-0.0207	0.000
artentF	0.1090	0.197	0.0891	0.265	0.0235	0.580	0.0808	0.284
acfoodF	0.1388	0.053	0.1764	0.054	0.0247	0.455	0.0450	0.305
perserF	0.1437	0.098	0.1614	0.105	0.0208	0.552	0.0170	0.605
halifcma	0.0059	0.005	0.0037	0.045	0.0048	0.012	0.0057	0.004
montcma	0.0491	0.000	0.0491	0.000	0.0496	0.000	0.0474	0.000
toroncma	-0.0020	0.000	-0.0026	0.000	-0.0024	0.000	-0.0023	0.000
winncma	0.0125	0.000	0.0103	0.000	0.0136	0.000	0.0118	0.000
calgcma	0.0058	0.000	0.0044	0.000	0.0038	0.000	0.0040	0.000
vanccma	0.0043	0.000	0.0031	0.001	0.0034	0.001	0.0035	0.000
stjnfcma	-0.0029	0.232	0.0098	0.019	0.0004	0.898	-0.0021	0.395
stjnbcma	0.0186	0.000	0.0097	0.007	0.0163	0.000	0.0098	0.007
sasktn~a	0.0042	0.077	0.0009	0.658	0.0047	0.044	0.0039	0.071
taxprice	-0.0001	0.095	-0.0011	0.008	-0.0004	0.001	0.0000	0.096
gtot	0.0002	0.002	-0.0016	0.000	-0.0010	0.000	-0.0006	0.000
atlantic	0.0524	0.000	0.0149	0.000	0.0279	0.000	0.0323	0.000
ontario	0.0346	0.000	0.0217	0.000	0.0245	0.000	0.0230	0.000
prairies	0.0477	0.000	0.0271	0.000	0.0314	0.000	0.0354	0.000
bc	0.0276	0.000	0.0151	0.000	0.0194	0.000	0.0187	0.000
territ	0.0014	0.829	0.4002	0.000	0.2122	0.000	0.1410	0.000
obs. P	0.0340		0.0330		0.0334		0.0329	
pred. P at x-bar	0.0252		0.0243		0.0248		0.0247	
Log pseudolikelihood	-102549		-108149		-111510		-114803	
Pseudo R-square	0.1183		0.1188		0.1173		0.1144	
N	783830		846737		863257		895148	

* All estimates have been corrected for heteroscedasticity.

Table 6B Corporate Decision to make Charitable Contributions in Canada (Probit estimates) for 2000 - 2003* with government expenditure groups

Independent Variable	2000 Marginal Effect	P>|z|	2001 Marginal Effect	P>|z|	2002 Marginal Effect	P>|z|	2003 Marginal Effect	P>|z|
nprofit	0.0017	0.007	0.0021	0.005	0.0019	0.044	0.0055	0.000
dtequity	-0.0004	0.077	-0.0002	0.164	-0.0005	0.003	0.0000	0.800
rtoa	0.0001	0.000	0.0080	0.146	0.3348	0.001	0.0193	0.556
large	0.4196	0.000	0.4042	0.000	0.3992	0.000	0.3923	0.000
medium	0.1583	0.000	0.1582	0.000	0.1613	0.000	0.1570	0.000
relsize	0.0608	0.698	0.0423	0.796	1.2854	0.014	-0.0006	0.998
usa	-0.0214	0.000	-0.0197	0.000	0.0027	0.885	-0.0012	0.944
othernat	-0.0211	0.000	-0.0187	0.000	0.0059	0.771	0.0044	0.826
agric	-0.0240	0.000	-0.0144	0.021	-0.0170	0.000	-0.0179	0.000
oilgas	-0.0207	0.000	-0.0106	0.175	-0.0121	0.057	-0.0101	0.181
mining	-0.0234	0.000	-0.0157	0.002	-0.0191	0.000	-0.0192	0.000
utilit	-0.0241	0.000	-0.0219	0.000	-0.0219	0.000	-0.0223	0.000
constr	-0.0273	0.000	-0.0171	0.008	-0.0189	0.000	-0.0197	0.000
manuf	-0.0203	0.000	-0.0077	0.397	-0.0105	0.127	-0.0126	0.063
whlsle	-0.0225	0.000	-0.0117	0.122	-0.0142	0.014	-0.0153	0.010
retail	-0.0274	0.000	-0.0176	0.004	-0.0189	0.000	-0.0202	0.000
transp	-0.0256	0.000	-0.0190	0.000	-0.0205	0.000	-0.0217	0.000
infcul	-0.0224	0.000	-0.0153	0.004	-0.0172	0.000	-0.0174	0.000
ndep	-0.0226	0.000	-0.0160	0.001	-0.0161	0.000	-0.0168	0.000
actcrd	-0.0192	0.000	-0.0149	0.011	-0.0108	0.123	-0.0134	0.030
secuco	-0.0204	0.000	-0.0094	0.250	-0.0128	0.030	-0.0135	0.027
insrel	-0.0078	0.270	0.0170	0.351	0.0122	0.389	0.0102	0.491
restat	-0.0250	0.000	-0.0149	0.020	-0.0169	0.001	-0.0171	0.001
profse	-0.0251	0.000	-0.0138	0.069	-0.0165	0.006	-0.0177	0.005
admin	-0.0234	0.000	-0.0148	0.014	-0.0170	0.000	-0.0177	0.000
edhsoc	-0.0177	0.000	-0.0031	0.771	-0.0049	0.570	-0.0062	0.488
artent	-0.0232	0.000	-0.0176	0.000	-0.0194	0.000	-0.0201	0.000
acfood	-0.0254	0.000	-0.0174	0.001	-0.0194	0.000	-0.0199	0.000
perser	-0.0265	0.000	-0.0204	0.000	-0.0215	0.000	-0.0222	0.000
agricF	0.0521	0.345	0.0392	0.481	-0.0161	0.162	0.0005	0.984
oilgasF	0.2387	0.026	0.1832	0.094	0.0032	0.899	0.0310	0.476
miningF	0.1470	0.052	0.0846	0.174	0.0528	0.262	0.0163	0.598
utilitF	0.0910	0.413	0.1479	0.282	-0.0063	0.803	0.0056	0.874
constrF	0.1003	0.090	0.0970	0.140	0.0239	0.458	0.0131	0.622
manufF	0.1516	0.022	0.1464	0.056	0.0254	0.403	0.0262	0.411
whlsleF	0.1262	0.035	0.1042	0.100	0.0113	0.627	0.0155	0.556
retailF	0.0735	0.125	0.0875	0.149	-0.0043	0.778	-0.0016	0.928
transpF	0.1966	0.017	0.1796	0.047	0.0259	0.428	0.0325	0.378
infculF	0.1702	0.031	0.1055	0.122	0.0074	0.748	0.0255	0.456
ndepF	0.0389	0.346	0.1104	0.151	-0.0037	0.844	-0.0149	0.141
actcrdF					-0.0119	0.555	0.1010	0.522
secucoF	0.0741	0.115	0.1114	0.104	0.0126	0.618	0.0061	0.784

Table 6B Corporate Decision to make Charitable Contributions in Canada (Probit estimates) for 2000 - 2003* with government expenditure groups Contd.

Independent Variable	2000 Marginal Effect	P>|z|	2001 Marginal Effect	P>|z|	2002 Marginal Effect	P>|z|	2003 Marginal Effect	P>|z|
insrelF	0.0212	0.455	0.0149	0.597	-0.0190	0.000	-0.0212	0.000
restatF	0.1005	0.071	0.1073	0.111	0.0135	0.597	0.0129	0.617
profseF	0.1413	0.032	0.0939	0.126	0.0108	0.647	0.0309	0.374
adminF	0.1063	0.078	0.0920	0.145	0.0077	0.737	0.0037	0.860
edhsocF	0.0917	0.172	0.0581	0.318	0.0044	0.861	-0.0208	0.000
artentF	0.1081	0.198	0.0902	0.261	0.0232	0.583	0.0791	0.288
acfoodF	0.1382	0.053	0.1792	0.052	0.0249	0.453	0.0442	0.309
perserF	0.1426	0.098	0.1631	0.103	0.0207	0.553	0.0168	0.607
halifcma	0.0012	0.547	-0.0026	0.133	-0.0024	0.171	-0.0014	0.443
montcma	0.0490	0.000	0.0489	0.000	0.0494	0.000	0.0472	0.000
toroncma	-0.0020	0.000	-0.0026	0.000	-0.0024	0.000	-0.0023	0.000
winncma	0.0042	0.041	0.0001	0.956	0.0005	0.768	0.0001	0.955
calgcma	0.0069	0.000	0.0058	0.000	0.0057	0.000	0.0053	0.000
vanccma	0.0043	0.000	0.0030	0.002	0.0033	0.001	0.0035	0.000
stjnfcma	0.0087	0.044	0.0154	0.003	0.0062	0.124	0.0099	0.022
stjnbcma	0.0221	0.000	0.0174	0.000	0.0264	0.000	0.0165	0.000
sasktn~a	0.0035	0.166	0.0000	0.994	0.0030	0.221	0.0044	0.076
taxprice	-0.0001	0.095	-0.0011	0.061	-0.0004	0.001	0.0000	0.097
protecpp	0.0150	0.000	0.0290	0.000	0.0511	0.000	-0.0267	0.000
health	0.0013	0.014	0.0292	0.000	0.0601	0.000	0.0014	0.000
socserv	-0.0052	0.000	-0.0286	0.000	-0.0549	0.000	0.0171	0.000
educatn	-0.0038	0.000	-0.0274	0.000	-0.0529	0.000	0.0028	0.001
environ	-0.0051	0.021	0.0048	0.139	0.0204	0.011	0.0326	0.001
reccultu	0.0079	0.004	0.1123	0.000	0.2266	0.000	-0.0781	0.000
atlantic	-0.0070	0.191	-0.0390	0.000	-0.0610	0.000	0.5541	0.036
ontario	-0.0078	0.106	-0.1326	0.002	-0.4212	0.021	0.3465	0.011
prairies	-0.0052	0.340	-0.0854	0.000	-0.2429	0.020	0.6746	0.001
bc	-0.0212	0.000	-0.1850	0.003	-0.5531	0.009	0.8894	0.000
territ	-0.0253	0.000	-0.0261	0.000	-0.0286	0.000	0.9765	0.000
obs. P	0.0340		0.0330		0.0334		0.0329	
pred. P at x-bar	0.0252		0.0243		0.0248		0.0247	
Log pseudolikelihood	-102513		-108091		-111433		-114720	
Pseudo R-square	0.1186		0.1193		0.1179		0.1150	
N	783830		846737		863257		895148	

* All estimates have been corrected for heteroscedasticity.

Table 7A Level of Total Corporate Charitable Contributions in Canada (OLS estimates) for 2000 - 2003* with total government expenditure

Independent Variable	2000 Coefficient	P>|t|	2001 Coefficient	P>|t|	2002 Coefficient	P>|t|	2003 Coefficient	P>|t|
nprofit	0.0010	0.013	0.0034	0.020	0.0016	0.325	0.0024	0.001
dtequity	0.0000	0.740	0.0001	0.700	0.0000	0.648	0.0001	0.052
rtoa	0.0000	0.768	-0.0016	0.283	0.1213	0.352	0.0812	0.299
large	0.0007	0.877	0.0056	0.655	0.0257	0.218	0.0065	0.475
medium	-0.0033	0.345	-0.0051	0.682	0.0216	0.303	-0.0017	0.836
relsize	1.3260	0.076	-0.1396	0.872	7.0942	0.211	2.0500	0.046
usa	-0.0744	0.066	-0.0906	0.156	-0.6060	0.209	-0.3513	0.002
othernat	-0.0734	0.067	-0.0887	0.163	-0.6025	0.209	-0.3539	0.002
agric	-0.0638	0.094	-0.0581	0.364	-0.5901	0.218	-0.3299	0.004
oilgas	-0.0859	0.048	-0.0698	0.298	-0.6196	0.216	-0.3466	0.003
mining	-0.0639	0.096	-0.0595	0.353	-0.5980	0.219	-0.3320	0.004
utilit	-0.0655	0.154	-0.0824	0.228	-0.6618	0.216	-0.3488	0.003
constr	-0.0642	0.092	-0.0582	0.366	-0.5903	0.217	-0.3302	0.004
manuf	-0.0654	0.083	-0.0603	0.332	-0.5836	0.219	-0.3300	0.004
whlsle	-0.0662	0.080	-0.0594	0.345	-0.5871	0.218	-0.3308	0.004
retail	-0.0646	0.090	-0.0579	0.368	-0.5903	0.217	-0.3304	0.004
transp	-0.0641	0.094	-0.0575	0.378	-0.5940	0.217	-0.3298	0.004
infcul	-0.0672	0.081	-0.0609	0.348	-0.5962	0.217	-0.3326	0.004
ndep	-0.0557	0.153	-0.0537	0.406	-0.5913	0.218	-0.3295	0.004
actcrd	-0.0718	0.070	-0.0604	0.392	-0.6480	0.214	-0.3551	0.003
secuco	-0.0539	0.156	-0.0469	0.476	-0.5826	0.222	-0.3214	0.005
insrel	-0.0677	0.072	-0.0620	0.300	-0.5798	0.220	-0.3315	0.004
restat	-0.0622	0.102	-0.0553	0.388	-0.5861	0.220	-0.3277	0.004
profse	-0.0647	0.089	-0.0586	0.356	-0.5890	0.218	-0.3303	0.004
admin	-0.0645	0.091	-0.0580	0.365	-0.5905	0.218	-0.3301	0.004
edhsoc	-0.0663	0.080	-0.0610	0.323	-0.5841	0.218	-0.3314	0.004
artent	-0.0637	0.096	-0.0563	0.390	-0.5955	0.217	-0.3302	0.004
acfood	-0.0637	0.095	-0.0571	0.379	-0.5925	0.217	-0.3299	0.004
perser	-0.0631	0.100	-0.0563	0.394	-0.5947	0.217	-0.3295	0.004
agricF	0.0858	0.042	0.0867	0.170	0.5957	0.212	0.3494	0.002
oilgasF	0.0711	0.103	0.0822	0.243	0.5465	0.194	0.3177	0.007
miningF	0.0611	0.134	0.0222	0.754	0.5532	0.221	0.2754	0.019
utilitF	0.0667	0.164	0.0676	0.231	0.0915	0.787	0.2941	0.038
constrF	0.0693	0.087	0.0744	0.270	0.6066	0.213	0.3504	0.003
manufF	0.0693	0.091	0.0759	0.265	0.6133	0.210	0.3463	0.003
whlsleF	0.0704	0.083	0.0816	0.220	0.6097	0.211	0.3473	0.003
retailF	0.1100	0.038	0.0792	0.232	0.5933	0.213	0.3373	0.004
transpF	0.0937	0.040	0.0821	0.230	0.6083	0.208	0.4060	0.001
infculF	0.0699	0.089	0.0782	0.251	0.6092	0.212	0.3558	0.002
ndepF	-0.0026	0.954	0.0567	0.314	0.3617	0.282	0.2759	0.019
actcrdF					0.4070	0.261	0.3320	0.007
secucoF	0.0864	0.049	0.0798	0.241	0.6009	0.212	0.3442	0.003

Table 7A Level of Total Corporate Charitable Contributions in Canada (OLS estimates) for 2000 - 2003* with total government expenditure Contd.

Independent Variable	2000 Coefficient	P>|t|	2001 Coefficient	P>|t|	2002 Coefficient	P>|t|	2003 Coefficient	P>|t|
insrelF	0.0663	0.093	0.0830	0.183	0.5790	0.217	0.3386	0.003
restatF	0.0665	0.096	0.0805	0.218	0.6008	0.213	0.3461	0.003
profseF	0.0675	0.096	0.0828	0.207	0.6065	0.211	0.3483	0.003
adminF	0.0630	0.114	0.0793	0.228	0.5928	0.214	0.3395	0.003
edhsocF	0.0696	0.083	0.0879	0.165	0.6051	0.209	0.3525	0.002
artentF	0.0746	0.054	0.0863	0.180	0.6071	0.210	0.3479	0.003
acfoodF	0.0650	0.105	0.0811	0.234	0.6002	0.212	0.3441	0.003
perserF	0.0652	0.107	0.0811	0.227	0.6002	0.214	0.3362	0.004
taxprice	-0.0001	0.152	0.0002	0.440	-0.0001	0.436	0.0000	0.576
gtot	-0.0001	0.036	-0.0002	0.291	-0.0006	0.236	0.0001	0.625
atlantic	-0.0022	0.006	-0.0033	0.128	-0.0070	0.160	0.0001	0.936
ontario	-0.0004	0.582	-0.0004	0.660	-0.0052	0.257	0.0010	0.561
prairies	-0.0012	0.144	-0.0005	0.460	-0.0037	0.215	0.0002	0.731
bc	-0.0005	0.377	0.0017	0.376	-0.0048	0.294	0.0011	0.506
territ	0.0087	0.032	0.0199	0.163	0.0334	0.188	-0.0032	0.781
invmills	-0.0076	0.044	-0.0095	0.511	0.0231	0.333	-0.0040	0.669
constant	0.0877	0.016	0.0949	0.088	0.5762	0.216	0.3337	0.003
R-squared	0.1328		0.0645		0.1490		0.2666	
F-statistic	.		.		.		6.80	
N	26649		27924		28827		29484	

* All estimates have been corrected for heteroscedasticity.

Table 7B Level of Total Corporate Charitable Contributions in Canada (OLS estimates) for 2000 - 2003* with government expenditure groups

Independent Variable	2000 Coefficient	P>|t|	2001 Coefficient	P>|t|	2002 Coefficient	P>|t|	2003 Coefficient	P>|t|
nprofit	0.0010	0.013	0.0034	0.021	0.0016	0.325	0.0024	0.001
dtequity	0.0000	0.729	0.0001	0.726	0.0000	0.635	0.0001	0.052
rtoa	0.0000	0.757	-0.0015	0.286	0.1215	0.353	0.0810	0.300
large	0.0000	0.995	0.0111	0.226	0.0261	0.224	0.0060	0.526
medium	-0.0038	0.309	-0.0016	0.874	0.0218	0.305	-0.0021	0.810
relsize	1.3254	0.076	-0.1316	0.879	7.0941	0.211	2.0501	0.046
usa	-0.0743	0.066	-0.0912	0.151	-0.6059	0.209	-0.3513	0.002
othernat	-0.0733	0.068	-0.0892	0.160	-0.6023	0.209	-0.3540	0.002
agric	-0.0635	0.096	-0.0586	0.358	-0.5901	0.218	-0.3298	0.004
oilgas	-0.0857	0.049	-0.0702	0.294	-0.6195	0.216	-0.3466	0.003
mining	-0.0640	0.096	-0.0589	0.357	-0.5973	0.219	-0.3321	0.004
utilit	-0.0653	0.155	-0.0835	0.219	-0.6615	0.216	-0.3486	0.003
constr	-0.0640	0.093	-0.0588	0.358	-0.5903	0.217	-0.3301	0.004
manuf	-0.0653	0.084	-0.0602	0.332	-0.5836	0.219	-0.3299	0.004
whlsle	-0.0661	0.081	-0.0595	0.343	-0.5871	0.218	-0.3308	0.004
retail	-0.0644	0.091	-0.0587	0.359	-0.5903	0.217	-0.3303	0.004
transp	-0.0639	0.095	-0.0586	0.364	-0.5940	0.217	-0.3297	0.004
infcul	-0.0670	0.082	-0.0614	0.342	-0.5962	0.217	-0.3326	0.004
ndep	-0.0555	0.155	-0.0542	0.398	-0.5914	0.218	-0.3294	0.004
actcrd	-0.0717	0.070	-0.0609	0.386	-0.6479	0.214	-0.3551	0.003
secuco	-0.0538	0.157	-0.0468	0.477	-0.5826	0.222	-0.3214	0.005
insrel	-0.0677	0.072	-0.0606	0.313	-0.5798	0.220	-0.3316	0.004
restat	-0.0621	0.103	-0.0556	0.383	-0.5861	0.220	-0.3277	0.004
profse	-0.0646	0.089	-0.0587	0.355	-0.5889	0.218	-0.3303	0.004
admin	-0.0643	0.092	-0.0585	0.360	-0.5904	0.218	-0.3301	0.004
edhsoc	-0.0664	0.079	-0.0599	0.333	-0.5838	0.219	-0.3315	0.004
artent	-0.0635	0.097	-0.0572	0.379	-0.5955	0.217	-0.3301	0.004
acfood	-0.0635	0.097	-0.0579	0.369	-0.5926	0.217	-0.3298	0.004
perser	-0.0629	0.101	-0.0576	0.379	-0.5947	0.217	-0.3293	0.004
agricF	0.0858	0.042	0.0876	0.162	0.5954	0.212	0.3494	0.002
oilgasF	0.0712	0.103	0.0843	0.226	0.5462	0.195	0.3179	0.007
miningF	0.0607	0.136	0.0234	0.739	0.5531	0.221	0.2753	0.019
utilitF	0.0666	0.164	0.0696	0.218	0.0917	0.786	0.2940	0.038
constrF	0.0690	0.089	0.0761	0.254	0.6068	0.213	0.3503	0.003
manufF	0.0691	0.093	0.0775	0.250	0.6133	0.210	0.3463	0.003
whlsleF	0.0702	0.084	0.0828	0.209	0.6097	0.211	0.3473	0.003
retailF	0.1098	0.038	0.0805	0.220	0.5932	0.213	0.3373	0.004
transpF	0.0933	0.041	0.0846	0.209	0.6083	0.209	0.4059	0.001
infculF	0.0696	0.091	0.0796	0.238	0.6093	0.212	0.3557	0.002
ndepF	-0.0028	0.951	0.0583	0.298	0.3618	0.282	0.2759	0.019
actcrdF					0.4069	0.261	0.3319	0.007
secucoF	0.0864	0.049	0.0810	0.230	0.6008	0.212	0.3442	0.003

Table 7B Level of Total Corporate Charitable Contributions in Canada (OLS estimates) for 2000 - 2003* with government expenditure groups Contd.

Independent Variable	2000 Coefficient	P>|t|	2001 Coefficient	P>|t|	2002 Coefficient	P>|t|	2003 Coefficient	P>|t|
insrelF	0.0663	0.094	0.0824	0.186	0.5788	0.217	0.3388	0.003
restatF	0.0662	0.098	0.0820	0.205	0.6008	0.213	0.3461	0.003
profseF	0.0673	0.097	0.0838	0.199	0.6063	0.211	0.3483	0.003
adminF	0.0627	0.115	0.0805	0.217	0.5927	0.214	0.3396	0.003
edhsocF	0.0696	0.083	0.0878	0.164	0.6050	0.209	0.3528	0.002
artentF	0.0744	0.054	0.0873	0.172	0.6070	0.210	0.3478	0.003
acfoodF	0.0647	0.107	0.0834	0.215	0.6002	0.212	0.3440	0.003
perserF	0.0651	0.108	0.0826	0.213	0.5999	0.214	0.3362	0.004
taxprice	-0.0001	0.178	0.0001	0.511	-0.0001	0.431	0.0000	0.563
protecpp	-0.0010	0.405	-0.0077	0.365	-0.0023	0.840	0.0003	0.920
health	0.0000	0.850	-0.0036	0.488	-0.0002	0.989	0.0000	0.880
socserv	0.0003	0.365	0.0047	0.415	-0.0006	0.965	0.0003	0.885
educatn	-0.0001	0.739	0.0022	0.604	-0.0007	0.951	-0.0003	0.442
environ	0.0004	0.766	-0.0051	0.251	-0.0031	0.616	0.0009	0.823
reccultu	0.0014	0.311	-0.0187	0.439	-0.0027	0.958	0.0021	0.807
atlantic	0.0023	0.452	0.0340	0.426	-0.0111	0.916	0.0043	0.776
ontario	0.0035	0.110	0.0319	0.378	-0.0042	0.956	0.0028	0.842
prairies	0.0015	0.513	0.0388	0.374	-0.0029	0.974	0.0027	0.886
bc	0.0013	0.696	0.0662	0.424	-0.0030	0.987	0.0008	0.971
territ	0.0106	0.402	0.2042	0.354	0.0702	0.844	-0.0140	0.803
invmills	-0.0080	0.042	-0.0057	0.629	0.0234	0.334	-0.0044	0.649
constant	0.0818	0.028	0.1109	0.057	0.5901	0.216	0.3290	0.006
R-squared	0.1329		0.0664		0.1490		0.2666	
F-statistic	.		.		.		6.38	
N	26649		27924		28827		29484	

* All estimates have been corrected for heteroscedasticity.

Table 8 Select Calculation of Elasticity of Corporate Donations

Variable	2000	2001	2002	2003
nprofit	0.005	0.012	0.005	0.010
taxprice	-0.016	0.043	-0.025	0.001
gtot	-1.478	-4.640	-11.795	1.883
protecpp	-1.504	-12.242	-3.648	0.556
health	-0.280	-25.757	-1.304	0.299
socserv	1.198	20.838	-2.412	1.450
educatn	-0.760	13.708	-4.646	-1.831
environ	0.286	-4.147	-2.529	0.884
reccultu	0.994	-15.403	-2.212	1.937

Table 9 Predicted Probabilities of Donating by Manufacturers

Nature of Enterprise	2000	2001	2002	2003
	%	%	%	%
Option A: Canadian vs. US-Controlled				
Reference Enterprise (RE)	4.3	41.0	18.7	11.2
RE and US-Controlled	0.8	19.9	19.8	10.6
RE and Manufacturer	1.2	35.3	13.4	6.7
RE, Manufacturer and US-Controlled	0.2	16.0	14.3	6.3
RE and Large Manufacturer	33.5	92.2	74.7	60.3
RE, Large Manufacturer and US-Controlled	12.9	16.0	14.3	6.3
RE and Large Manufacturer in Ontario	52.6	96.0	85.0	73.0
RE, Large Manufacturer in Ontario and US-Controlled	26.1	87.2	86.0	72.0
RE and Large Manufacturer in BC	47.5	95.0	82.7	70.2
RE, Large Manufacturer in BC and US-Controlled	22.2	84.8	83.7	69.1
Option B: Canadian vs. Industry-Foreign				
RE and Manufacturer	1.2	35.3	13.4	6.7
RE, Foreign Manufacturer	11.3	73.8	21.6	12.3
RE and Large Manufacturer	33.5	92.2	74.7	60.3
RE, Large Foreign Manufacturer	87.3	99.5	88.7	81.2
RE and Large Manufacturer in Ontario	52.6	96.0	85.0	73.0
RE, Large Foreign Manufacturer in Ontario	94.9	99.8	94.3	89.2
RE and Large Manufacturer in BC	47.5	95.0	82.7	70.2
RE, Large Foreign Manufacturer in BC	93.4	99.8	93.1	87.5

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