

# Politics, Religion, and Tax Incentives for Charitable Giving in South Korea\*

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*This study explores the effects of tax incentives for charitable contributions concerning taxpayers' socioeconomic characteristics, religion, and political preference. Using South Korean household-level panel data, we regard people from a wide range of demographics and religious and political groups as our research subject. We obtain the following results: (1) Controlling for religious and political preferences enhances the estimation result. (2) Taxpayers practicing Protestantism do not significantly respond to tax incentives, although they are the most philanthropic group of all religious groups studied. (3) Political preference significantly affects donation behavior, wherein conservatives react less significantly to tax incentives than progressives. Our results provide evidence that giving intention is not only practice-driven but also ideology-driven.*

JEL Classification: H24, H31

Keywords: Tax Incentives, Charitable Giving, Religion, Political Orientation

## I. Introduction

We estimate the price elasticity of charitable contributions, as determined by taxpayers' preferences. Thus, we contribute to the recent work in the philanthropic and experimental economics literature. A well-established and influential body of literature discusses the tax treatment of charitable contributions (e.g., Feldstein and Clotfelter, 1976; Randolph, 1995; Auten et al., 2002; Duquette, 2016). In particular, it answers how charitable contributions respond to tax incentives. However, recent experimental studies investigated the act of giving precisely and identified new psychological mechanisms that could explain why people donate (e.g., Andreoni and Rao, 2011; Andreoni et al., 2017).

This study aims to build on the results of the behavioral literature by

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investigating new questions in this field using a unique dataset. We analyze what kind of people donate money, depending on the tax treatment of donations. Recently, the Korean tax system relating to charitable giving has undergone some changes, although the resulting behavioral change on behalf of taxpayers is yet to be understood. We consider that practices and ideologies affect households' charitable donations. Past research revealed that taxpayers' preferences indirectly translate into a diverse range of charity types (e.g., Reece, 1979; Brooks, 2007; Duquette, 2016). These results indicate that personal preferences play an essential role in an individual's decision to donate to charity.

We directly reveal taxpayers' preferences by measuring the effects of tax incentives on charitable contributions. We consider three key factors: socioeconomic characteristics, religion, and political preference. We refer to the classification of religion and political orientation defined by Forbes and Zampelli (2013) and Yen and Zampelli (2014). The current research, which estimates the price elasticity of charitable giving on the basis of the above three characteristics, provides strong empirical insight concerning behavioral characteristics.

[Table 1] Ratio of religious orientations in different countries

Country	U.S. <sup>a</sup>	France <sup>b</sup>	China <sup>c</sup>	Japan <sup>d</sup>	Korea <sup>e</sup>
Protestantism	48.9	3			19.7
Catholicism	23.0	56			7.9
Buddhism			15.9	34.9	15.5
No religion	18.2	32	73.6	51.8	56.1
No response	2.6	8		7	
Year	2016	2012	2014	2006	2015

Data sources:

<sup>a</sup> Gallup Inc. "Five Key Findings on Religion in the U.S." Gallup.com. Retrieved April 05, 2018.

<sup>b</sup> "Le catholicisme en France" (PDF), CSA, March 2013.

<sup>c</sup> China Family Panel Studies, 2014.

<sup>d</sup> Dentsu Communication Institute, Japan Research Center: Sixty Countries' Values Databook.

<sup>e</sup> Korean Statistical Information Service, 2015.

We examine novel data from the National Survey of Tax and Benefit (NasTaB), which comprises approximately 5,000 Korean households surveyed annually since 2007. South Korea is an ideal place for researching the effect of political and religious preferences on charitable giving. First, the Korean population exemplifies the diversity of religious backgrounds, as shown in Table 1. We compare the prevalence of four representative religious attitudes, namely, Protestantism, Catholicism, Buddhism, and no religion, in Korea and other countries. The Korean sample enables efficient analysis of the effect of different religious backgrounds. Second, Korea has a well-balanced distribution of political ideologies. The unique political situation defined by the short and intense democratization of South Korea

and the tension with North Korea means that Korean households have a clear interest in politics. Table 2 shows the results of the 2016 National Assembly election. In sum, the use of Korean data suits well our investigation.

[Table 2] Summary of the 2016 South Korean National Assembly election results

Party	Position	Seats	% of seats
Democratic Party of Korea	Left-wing	123	41.0
Saenuri Party	Right-wing	122	40.7
People's Party	Center-right	38	12.7
Justice Party	Center-left	6	2
Others		11	3.7
Total		300	100

We base our empirical model on the Heckman two-step selection model, which allows for the control of possible selection bias. This econometric model considers peoples' intention to donate and control for non-contributors. In doing this investigation, we show the significance of examining peoples' response to tax incentives, depending on their backgrounds. We present novel findings that prove the influence of political and religious preferences on giving behavior. We also estimate the income and price effect for charitable contributions. We observe that the price elasticity of charitable donations concerning tax incentives has decreased from  $-2.25$  to  $-1.60$  after adding the variable controlling for religious and political preferences to the model. Note that our model has already controlled for socioeconomic factors. Religious and political preferences play a critical role in giving behavior. Building on this result, we investigate the price elasticity of charitable donations concerning tax incentives for individual religious groups. We find that Protestants react more strongly to tax incentives than other religious groups in terms of their donation behavior. For the entire estimation procedure, the inverse Mills ratio is significant, implying a possible selection bias. Accordingly, the sample selection model is suitable for analysis.

The rest of this study is organized as follows. Section 2 discusses the relevant prior literature. Section 3 describes the data and all variables and the estimation method. Section 4 offers the results. Finally, Section 5 provides a summary of our findings and conclusions.

## II. Literature Review

As previously mentioned, South Korea is an extremely diverse country in terms of the religious and political preferences of its population. In this section, we provide a brief review of the existing literature related to our study.

In a review of the literature on philanthropy, Bekkers and Wiepking (2007) found approximately 60 studies that showed a relationship between religion and charitable behavior. They revealed that giving actions are different when they consider secular and religious qualities. Concerning tax incentives for donations, Helms and Thornton (2012) showed that religious donations have less price elasticity than secular gifts. Forbes and Zampelli (2013) revealed that stronger beliefs on behalf of religious individuals increase their religious donations. Lunn et al. (2001) investigated relationships among theological beliefs, church attendance, and religious giving related to the Presbyterian Church in the U.S. They found that theologically conservative Presbyterians donate more to religious purposes than liberals who donate more to non-religious philanthropic institutions. Bekkers and Schuyt (2008) used the Netherlands Panel Survey to study differences in philanthropic behavior between different religious denominations and non-religious organizations. They found that Protestants are more likely to do volunteer work than Catholics or non-religious people. Berger (2006) examined the Canada 2000 National Survey data and found that conservative Protestants are the most philanthropic. Lyons and Nivison-Smith (2006) analyzed an Australian sample and found that people who hold religious beliefs are more likely to give to charity than other groups.

Observations about the effect of politics on charitable donations are divergent. Forbes and Zampelli (2013) used data from the 2006 social capital community survey and found that politically conservative people donate more to religious institutions than people with different political ideologies. This finding is consistent with a previous study by Vaidyanathan et al. (2011). By contrast, Yen and Zampelli (2014) used data from a panel study on American Religion and Ethnicity and found that an increase in political conservatism leads to lower charitable contributions. This result conflicts with the previous finding from Forbes and Zampelli (2013). Paarlberg et al. (2019) showed that people supporting the Republican party tend to give more to charity. To sum up, the literature confirms that political ideology significantly affects charitable giving intentions, and thus this topic warrants further investigation.

### III. Methodology

#### 3.1. Data

We empirically analyze the NasTaB panel data, which contain information on approximately 5,000 households extracted nationwide annually since 2007. We examine the four most recent waves from 2015 to 2018, wherein the survey on the religious and political preferences of households began. Specifically, we consider panel data on Korean households' religious and political attitudes which was

gathered via face-to-face interviews. The data have a sufficient number of data points, and we conduct our study under the supervision of the specialized public institute. Accordingly, we can assume that our data can represent the Korean population.

### 3.2. Description of the Variables

We define the independent variables following three groups: socioeconomic characteristics, religion, and political preference. Table 3 describes each variable.

[Table 3] Definitions of variables and sample statistics

Variable	Definition	Mean	Std. Dev.	Min	Max
Charitable contribution	Annual charitable contribution in Won (unit 1 = 10,000 Won)	64.91	234.97	0	10,000
<b>Socioeconomic variables (Household head characteristics)</b>					
Giving price	1—marginal income tax rate	0.84	0.08	0.58	0.94
Income	The sum of households' annual income in Won (unit 1 = 10,000 Won)	5,140.85	5,038.23	0	202,520
Household member	Total number of household members	2.75	1.28	1	8
Gender	Gender of the respondent (male = 1, female = 0)	0.77	0.42	0	1
Marital status	Marital status of the respondent (1 = married, 0 = single)	0.73	0.45	0	1
Education	Level of education (1 = below middle school, 2 = a high school graduate, 3 = college graduate or higher)	2.19	0.80	1	3
Housing price	Declared value or market value of house (unit 1 = 10,000 Won)	16,631	25,892	0	400,000
<b>Religious preference variables (binary variables): yes = 1, no = 0</b>					
Protestantism	Respondent believes in Protestantism	0.17	0.38	0	1
Catholicism	Respondent believes in Catholicism	0.06	0.23	0	1
Buddhism	Respondent believes in Buddhism	0.15	0.36	0	1
<b>Political preference variables</b>					
Political propensity	(Very progressive = 1, very conservative = 5)	3.14	0.94	1	5
Interest in politics	(Very interested = 1 to very not interested = 5)	2.87	0.96	1	5
Participation in voting	(Active participation = 1, not eligible to vote = 5)	1.66	0.70	1	5

Table 4 shows conditional statistics, depending on each religion and political preference. Although we control for the effects of socioeconomic variables, other

factors correlated with the respondents' religion or political ideology may still drive the result of different elasticities. For example, wealthy people in Korea are progressive on average, and thus this income effect may drive the same result.

[Table 4] Conditional statistics

	Religion			Political preference		
	Protestantism	Catholicism	Buddhism	Progressive	Neutral	Conservative
Charitable contribution	258.06 (489.33)	76.75 (102.34)	31.41 (110.15)	77.07 (264.61)	59.60 (223.31)	61.66 (223.8)
Giving price	0.84 (0.08)	0.83 (0.09)	0.86 (0.08)	0.82 (0.08)	0.84 (0.08)	0.86 (0.08)
Income	5559.14 (5097.69)	5961.39 (5323.5)	4419.23 (4967.34)	5888.39 (4466.46)	5106.39 (4550.89)	4672.05 (5726.15)
Housing price	17088.78 (25183.17)	28176.58 (44148.85)	16444.97 (21855.73)	15607.17 (23929.61)	14999.86 (24036.24)	18844.54 (28544.75)
Household member	2.86 (1.31)	2.74 (1.23)	2.5 (1.17)	2.99 (1.3)	2.79 (1.31)	2.55 (1.21)
Gender	0.75 (0.43)	0.78 (0.42)	0.71 (0.45)	0.83 (0.37)	0.74 (0.44)	0.76 (0.42)
Marital status	0.75 (0.44)	0.79 (0.41)	0.7 (0.46)	0.76 (0.43)	0.7 (0.46)	0.73 (0.44)
Education	2.3 (0.8)	2.38 (0.79)	1.89 (0.81)	2.49 (0.67)	2.21 (0.79)	1.95 (0.82)
Protestantism	1 (0)	0 (0)	0 (0)	0.19 (0.4)	0.17 (0.38)	0.16 (0.37)
Catholicism	0 (0)	1 (0)	0 (0)	0.06 (0.23)	0.05 (0.21)	0.07 (0.25)
Buddhism	0 (0)	0 (0)	1 (0)	0.08 (0.28)	0.13 (0.34)	0.2 (0.40)
Political propensity	3.07 (0.94)	3.21 (1.04)	3.48 (0.95)	1.92 (0.27)	3 (0)	4.21 (0.40)
Interest in politics	2.81 (0.93)	2.69 (0.98)	2.98 (1.02)	2.46 (0.89)	3.04 (0.79)	3 (1.08)
Participation in voting	1.57 (0.67)	1.48 (0.66)	1.61 (0.70)	1.54 (0.64)	1.83 (0.71)	1.57 (0.70)

### 3.3. Econometric Model

We apply the Heckman two-step sample selection model to account for two econometric issues indicated by Hossain and Lamb (2015). The first issue is selectivity bias, wherein the stated amount of charitable contribution represents not only the level of the contributions but also the respondents' judgment of their reputation for donations. The second issue is the self-selectivity problem, wherein a household does not state their contributions accurately, which can lead to incorrect

estimation results. Nevertheless, the Heckman two-step sample selection model is appropriate for considering non-contributors who do not donate, regardless of the tax incentive. The Tobit model is generally for a large number of zeros observed for the left-hand side of the estimation equation. However, given that households are not consumers of the donated goods, the Tobit model cannot properly handle zero observations for the dependent variable. The Heckman two-step selection is appropriate for handling the Korean households' responses, even when two-thirds of the respondents are non-contributors. Overall, this model is appropriate for the estimation of donation behavior. It effectively controls for econometric issues.

We express the Heckman two-step sample selection model as follows:

$$\log[\text{donation}] \begin{cases} = \alpha \log[1 - \tau] \cdot D_i[\text{group}] + \beta Z + \varepsilon, & \text{if } DC = \alpha' \log[1 - \tau] \cdot D_i[\text{group}] + \beta' Z + \mu > 0 \\ = 0 & \text{otherwise} \end{cases},$$

where DC is the determined contribution of the household (1 for a contributor and 0 for a non-contributor). We add interaction terms between the logarithm of the giving price and the dummy variables to estimate the price elasticity of charitable giving. We define the giving price as one minus the marginal income tax rate.  $Z$  is the vector of explanatory variables.  $\alpha$  and  $\beta$  are the vectors of parameters, and  $\varepsilon$  and  $\mu$  are error terms.

### 3.4. First-Dollar Price Method

The first-dollar price method is a generally accepted process for assessing the effect of tax incentives on charitable donations. Considerable past research used the first-dollar price method to investigate how tax incentives augment the amount of charitable contributions (Feldstein and Taylor, 1976; Randolph, 1995; Auten et al., 2002). The first-dollar price is equal to one minus the marginal income tax rate on gross income and is known as the giving price. The giving price is a widely used instrumental variable to measure the variation in different donors' income tax level, which reflects the effect of the tax benefit on the charitable giving. We calculate the marginal income tax rate by using the household head's tax income bracket. It must be noted, however, that the tax credit for charitable giving was introduced as of started in 2014. The fact that price matters under the credit system is disturbing or means there are behavioral economics concerns at work.

## IV. Empirical Results

In the next three subsections, we describe the income and price effects on charitable giving, investigate the price elasticity of charitable giving concerning each

religious group, and examine the price elasticity concerning political orientation.

### 4.1 Political Preference, Religion, and Price Effects

We obtain the results shown in Table 5 by applying the Heckman two-step selection model to Korean household data. The inverse Mills ratio is significant, implying that selection bias may have affected the analysis of the sensitivity of charitable contributions to changes in the tax incentive.

[Table 5] Average marginal effects of the Heckman two-step selection model

Variable	Selection Equations			Level Equations		
	(1)	(2)	(3)	(1)	(2)	(3)
<b>Price effect</b>						
Log giving price	-0.566***	-0.554***	-0.503***	-2.249	-1.687***	-1.600***
Log income	0.093***	0.093***	0.095***	0.671***	0.615***	0.613***
<b>Religion</b>						
Protestantism		0.506***	0.502***		2.807***	2.827***
Catholicism		0.426***	0.420***		1.881***	1.801***
Buddhism		0.161***	0.008***		0.796***	0.767***
<b>Political preference</b>						
Political propensity			-0.006*			0.045**
Interest in politics			-0.010***			-0.031
Participation in voting			-0.055***			-0.283***
<b>Inverse Mill</b>				2.321*	1.318***	1.271***
<b>Socioeconomics</b>	✓	✓	✓	✓	✓	✓
<b>Year</b>	✓	✓	✓	✓	✓	✓
<b>Observations</b>	18,419	18,419	17,636	18,419	18,419	17,636

Notes: Dependent variable = log charitable contributions. Socioeconomics is a vector of control variables, including household member, gender dummy, marital status dummy, education dummy, and log housing price. Statistical significance: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , and \* $p < 0.1$ .

The selection stage, which is the first stage of the two-step model, investigates people’s decision to donate. In line with our expectations, the estimated coefficients for the price of giving and for income are statistically significant. However, the effect of income on the decision to donate is quite small.

In the outcome stage, the significance of the contribution price implies that a 1% increase in the price of charitable contributions triggers a -1.60% change in the amount of charitable contributions. For the U.S., the average price elasticity of giving is -1.44% (Peloza and Steel, 2005). However, the price effect observed in this study has decreased after including all control variables in the model. Notably, the coefficient decreases by almost one-third after adding the variable for religion. Thus, the existence of omitted variable bias in the model without the control



variables may affect the above result. This finding indicates a strong influence of religion on charitable contributions.

Each of the specific religious factors investigated show a positive effect on charitable donations. Thereby, the Protestant dummy variable shows a stronger effect than any other religion. For the groups of Protestant, Catholic, and Buddhist people, the likelihood of deciding to donate increases by 0.502, 0.420, and 0.008 times, respectively. Moreover, the donation amount has increased by 2.83, 1.80, and 0.77 times, respectively. The non-religious group is the control group.

From the perspective of political preference, people who are progressive exhibit donation behaviors. However, the conservative group has given a larger amount of money than the group of progressives. The group of people who do not have an interest in politics has an association with a low likelihood to donate and low donation amounts. This finding is evident from the observation that a decrease in participation in voting has an association with a low likelihood to decide to donate and low donation amounts.

### 4.2. Interactions with Religious Preference

[Table 6] Average marginal effects for each religious group

Variable	Selection Equations			Level Equations		
	(1)	(2)	(3)	(1)	(2)	(3)
<b>Price effect</b>						
Log Protestant*Price	0.154***	0.173***	0.611***	1.047***	1.061***	0.446
Log Catholicism*Price	0.030	0.046	0.385	-0.755**	-0.732***	3.430**
Log Buddhism*Price	-0.400***	-0.367***	-0.069	-3.310***	-3.013***	-3.363***
Log non-religious*Price	-0.678***	-0.652***	-0.680***	-5.337***	-4.888***	-4.738***
<b>Inverse Mill</b>				2.110***	1.896***	1.555***
<b>Socioeconomics</b>	✓	✓	✓	✓	✓	✓
<b>Religious preference</b>			✓			✓
<b>Political preference</b>		✓	✓		✓	✓
<b>Year</b>	✓	✓	✓	✓	✓	✓
<b>Observations</b>	18,419	17,636	17,636	18,419	17,636	17,636

Notes: Dependent variable = log charitable contributions. Socioeconomics is a vector of control variables, including household members, gender dummy, marital status dummy, education dummy, and log housing price. Religious preference is a vector of control variables, including Protestant dummy, Catholicism dummy, and Buddhism dummy. Political preference is a vector of control variables, including political propensity, interest in politics, and participation in voting. Statistical significance: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , and \* $p < 0.1$ .

Table 6 shows the price elasticity of giving concerning religious preference. This model includes interaction terms for the price of giving and for each of the religion

dummies. The results show that the donor’s religious preference moderates the effect of the tax incentive. The noticeable effect is that the non-religious people react strongly to tax incentives. Specifically, changes in tax incentives will greatly affect their donation decisions and donation amount. For a 1% increase in the price of charitable contributions, the donation amount will change by between  $-5.34\%$  and  $-4.74\%$  for non-religious people. A comparable effect is evident for the Buddhist religion. However, the effect is smaller than that of the non-religious people. The tax incentive has an insignificant effect on the charitable contributions of the Protestants.

### 4.3. Interactions with Political Preference

[Table 7] Average marginal effects for each political preference

Variable	Selection Equations			Level Equations		
	(1)	(2)	(3)	(1)	(2)	(3)
<b>Price effect</b>						
Log Progressive*Price	-0.547***	-0.519***	-0.570***	-2.074	-1.666***	-1.632***
Log Neutral*Price	-0.589***	-0.552***	-0.503***	-2.225	-1.737***	-1.605***
Log Conservative*Price	-0.556***	-0.553***	-0.443***	-1.863	-1.591***	-1.586*
<b>Inverse Mill</b>				2.016	1.141***	1.151***
<b>Socioeconomics</b>	✓	✓	✓	✓	✓	✓
<b>Religious preference</b>		✓	✓		✓	✓
<b>Political preference</b>			✓			✓
<b>Year</b>	✓	✓	✓	✓	✓	✓
<b>Observations</b>	18,419	18,419	17,636	18,419	18,419	17,636

Notes: Dependent variable = log charitable contributions. Socioeconomics is a vector of control variables, including household members, gender dummy, marital status dummy, education dummy, and log housing price. Religious preference is a vector of control variables, including Protestant dummy, Catholicism dummy, and Buddhism dummy. Political preference is a vector of control variables, including political propensity, interest in politics, and participation in voting. Statistical significance: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , and \* $p < 0.1$ .

Table 7 includes the interaction terms for the price of giving interacting with each dummy variable for political preference. It expands our investigation and allows the consideration of the price elasticity of charitable contributions for each group.

In the selection stage, all independent variables are statistically significant ( $\sigma < 0.001$ ). The results indicate that political preference significantly influences the donation decision. The outcome stage shows that people with conservative political orientation tend to respond less significantly to the tax incentive. Specifically, people with a conservative political orientation have reacted to a 1% increase in the tax

incentive with a 1.59%–1.86% increase in charitable giving. Neutral and progressive taxpayers have exhibited a high increase in their giving amount, which increased by 1.61% to 2.23% and 1.63% to 2.07%, respectively. However, estimation results only show a difference in the giving behavior relative to political preference.

#### **4.4. Discussion**

Our findings show different price elasticities of charitable contributions for different groups of people. Protestants are more likely to exhibit philanthropic behavior, irrespective of the tax incentive. In terms of political inclinations, the giving behavior of people with conservative political orientation tends to exhibit less sensitivity to the price of giving than progressive or neutral taxpayers. They also donate more on average.

The finding begs the question of why protestants and conservative people in Korea have a high propensity for charitable giving. One possible explanation is that religions with doctrinal obligations and institutional frameworks tend to incite donation behavior. In Buddhism, the scriptures do not regulate donations. By contrast, Protestantism and Catholicism, which use the same Bible as scripture, stress the obligation to donate. In Protestantism, a tithe refers to paying ten percent of one's income as a donation. Catholicism has a related concept called the "denarius cultus," which originated from the idea of one-tenth. This concept is one of the six obligations that Catholics have under the church law. It is the obligation to bear the cost of maintaining the church, and every household should promise and pay a specific amount each year. Paying between one-twentieth and one-thirtieth of the annual income is the usual recommendation, although individuals are the ones who determine the exact figure. Korean Catholicism has this strong tradition, which does not exist in most other countries. In Buddhism, believers voluntarily donate goods to religious people, but a donation is not an obligation.

Korea's special institutional background in terms of the financial resources available to each religion also affects donation behavior. In Korea, Protestantism dictates that the individual churches should own the property of all churches. Therefore, the pastor has an incentive to emphasize the tithe because the religious donations become the property of his church. Moreover, the believers can see directly how the church spends their donation, such as in their operation. In Catholicism, religious contributions to the church belong to the Catholic headquarters, not to the individual church. Therefore, asking for or making a donation to each Catholic church has no direct economic incentive. In Buddhism, the government pays the operating expenses of temples. Thus, encouraging the act of donation has only little economic incentive. Buddhists show a value for price elasticity of donations, which is even lower than the non-religious group.

Political ideology matters for redistribution of wealth, irrespective of whether it

occurs via charitable giving. People with conservative political orientation report higher charitable contributions than progressives (Paarlberg et al., 2019). The tendency for conservatives to pay more contributions than those of other political preferences is also evident in this study. Nevertheless, the tax incentives for donations experienced by this group are smaller than for other groups. Our findings support the notion that conservatives give more than progressives as a means of redistributing financial resources in society.

These implications suggest that one should interpret donation behaviors on behalf of people with different religions and political ideologies as outcomes of social psychology. Despite the innovative studies by a handful of economists, the study of religion remains almost the exclusive purview of other fields, such as sociology.

## V. Summary and Policy Implications

This study investigates the significance of taxpayers' religious and political preferences for their response to tax incentives for charitable contributions. We use Korean household-level panel data collected by the Korean Institute of Public Finance to estimate the price elasticity of charitable contributions. The estimation considers the effects of the level of the tax incentive, different religious groups, and varying political preferences. We conduct each estimation by using the Heckman two-step model. The significance of the inverse Mills ratio suggests that the existence of selection bias concerning the intention to donate may affect all estimation results.

Our results have two policy implications. First, the majority-approved theory, which states that increasing tax incentives lead to the level of charitable giving, does not necessarily hold for people with different religious and political preferences. In particular, Christian religions like Protestantism or Catholicism, which are extremely common denominations, do not increase their amount of giving as a response to the increase in the tax incentive. The proposed explanation for this finding is that people practicing a religion that states a requirement for donations in the doctrines, such as Catholicism, will give more.

Second, the existence of heterogeneity in the giving behavior concerning religion justifies the government's price policy to differentiate the limit of income tax deduction. In South Korea, the government has sustained the limit of income tax deduction of the "religious donation" group at 10% from 2007 until now. The limit of income tax deduction of the non-religious group has changed from 10% to 30%. Our empirical results show that following a religion has an association with lower price elasticity than not following a religion. This finding suggests that the

government's price-differentiation policy for donations is appropriate.

Overall, the results of this study support the findings of Yen and Zampelli (2014), which showed that giving behavior is practice-driven and ideology-driven. The results of the sample selection model also provide some insight into how the effects of tax incentives and socioeconomic variables vary for different religious and political preferences. Although we cannot identify the ultimate explanation for donation behaviors, we still contribute to our understanding of the donation behavior responses concerning tax incentives.

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