Charitable Giving, Tax Reform, and Government Efficiency*

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Abstract

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Keywords: Charitable giving, Giving price, Tax reform, Governement efficiency, South Korea

JEL: D91, I10, I18

1. Introduction

Placeholder

1.1. Charitable Giving and Taxation

1.2. Summary in short

1.3. South Korean tax reform

1.4. Related Literature

1.5. Research about tax price elasticity of charitable donations

1.6. Research about perception towards the government and donation/tax payment.

1.7. Why Political Trust?

2. Institutional background

Placeholder

*This research is base on

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Email address: vge008kh@stundent.econ.osaka-u.ac.jp (Hiroki Kato)

2.1. Tax relief for charitable giving by tax deduction and tax credit

2.2. Korean tax reform in 2014 (Need modification by Kim san)

3. Data

3.1. National Survey of Tax and Benefit (NaSTaB)

- The Korea Institute of Taxation and Finance implements the financial panel survey to study the tax burden of households and the benefits that households receive from goverment.
- The subjects of this survey are general household and household members living in 15 cities and provinces nationwide.
- This survey is based on a face-to-face interview. If it is difficult for investigators to meet subjects, another family member answers on behalf of him.
- Survey items: Annual taxable income (last year), charitable donations (last year), trust for politicians (5-Likert scale), and other covariates (age, education, gender etc.).
- Survey period: 2008 ~ 2019
  - We use survey data after 2013 to focus on tax policy change in 2014.

3.2. Time Series of Chariable Giving

3.3. Summary Statistics

3.4. What is Giving Price?

Consider allocation between private consumptions (x_i) and charitable giving (g_i). Let y_i be pre-tax total income. Then, the budget constraint is

$$x_i + g_i = y_i - T_i(y_i, g_i),$$

where T_i is tax amount depending on the pre-tax income and charitable giving.

3.5. Determination of Tax Amount

Tax deduction reduces taxable income by giving, that is,

$$T_i = \tau(y_i - g_i) \cdot (y_i - g_i),$$

where $\tau(\cdot)$ is the marginal income tax rate which is determined by $y_i - g_i$.

Tax credit reduces tax amount directly, that is,

$$T_i = \tau(y_i) \cdot y_i - mg_i,$$

where $m \in [0, 1]$ is the tax credit rate.

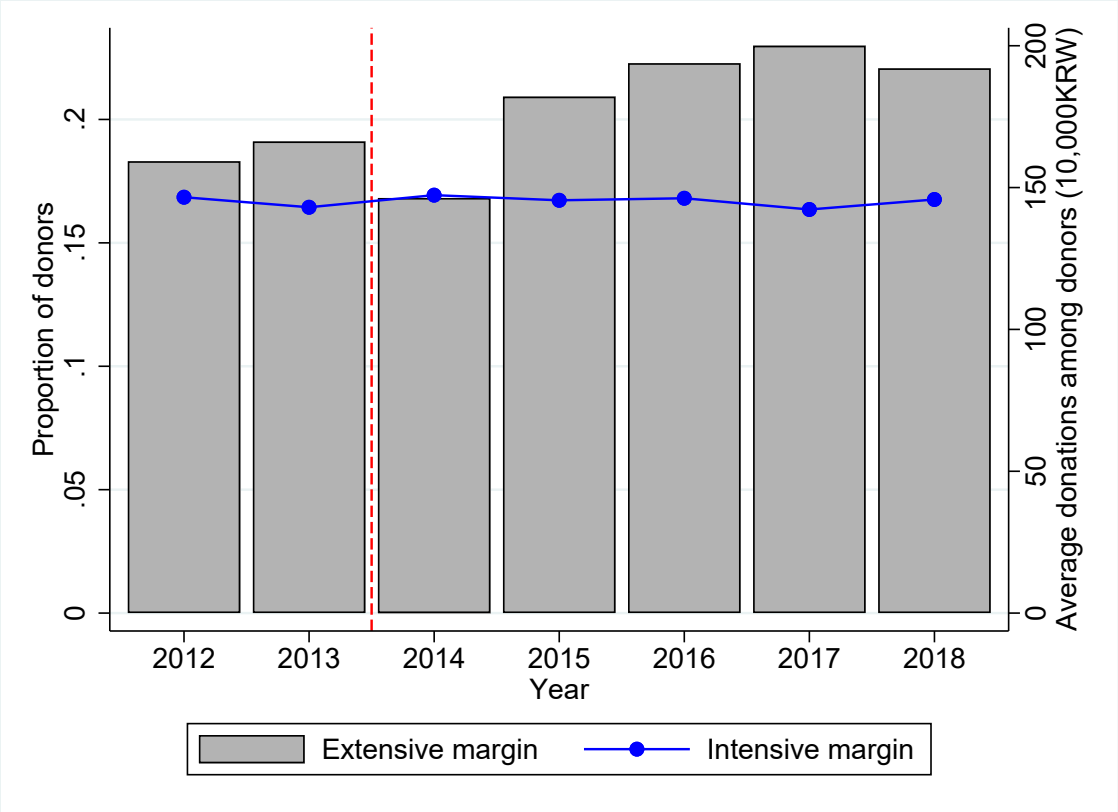

Figure 1: Proportion of Donors and Average Donations among Donors

Table 1: Summary Statistics

	N	Mean	Std.Dev.	Min	p25	p50	p75	Max
Income and Giving Price								
Annual taxable income (unit: 10,000KRW)	53269	1876.121	2700.965	0.00	0.00	900.00	2902.445	91772.00
Giving Price	62878	0.858	0.036	0.62	0.85	0.85	0.850	0.94
Charitable Donations								
Annual charitable giving (unit: 10,000KRW)	67849	29.522	132.914	0.00	0.00	0.00	0.000	10000.00
dummy of Donation > 0	67849	0.203	0.402	0.00	0.00	0.00	0.000	1.00
Government Efficiency								
Current Tax-Welfare Balance	29272	-0.137	0.889	-2.00	-1.00	0.00	0.000	2.00
Ideal Tax-Welfare Balance	29273	0.541	0.721	-2.00	0.00	0.00	1.000	2.00
Individual Characteristics								
Age	67848	51.348	15.806	24.00	39.00	50.00	62.000	104.00
Female dummy	67848	0.525	0.499	0.00	0.00	1.00	1.000	1.00
University graduate	67842	0.411	0.492	0.00	0.00	0.00	1.000	1.00
High school graduate	67842	0.350	0.477	0.00	0.00	0.00	1.000	1.00
Junior high school graduate	67842	0.238	0.426	0.00	0.00	0.00	0.000	1.00

3.6. Derive Giving Price

Under the tax deduction system, the budget constraint is

$$x_i + [1 - \tau(y_i - g_i)]g_i = [1 - \tau(y_i - g_i)]y_i.$$

Thus, the giving price of tax deduction system is $p_i^d = 1 - \tau(y_i - g_i)$.

Under the tax credit system, the budget constraint is

$$x_i + (1 - m)g_i = [1 - \tau(y_i)]y_i.$$

Thus, the giving price of tax credit system is $p_i^c = 1 - m$.

3.7. Construct Giving Price

In the South Korea, the tax policy about charitable giving drastically changed in 2014.

- tax deduction (before 2014): $\text{Price}_i = 1 - \tau(y_i - g_i)$
  - the giving price is endogenous because people can manipulate $\tau(y_i - g_i)$ using the charitable giving g_i. Since this problem is caused by *last* donations, we use the giving price applying to the *first* donations (**first price**). The first price is calculate by $\tau(y_i)$ where y_i is the annual taxable income reported in the NaSTaB.

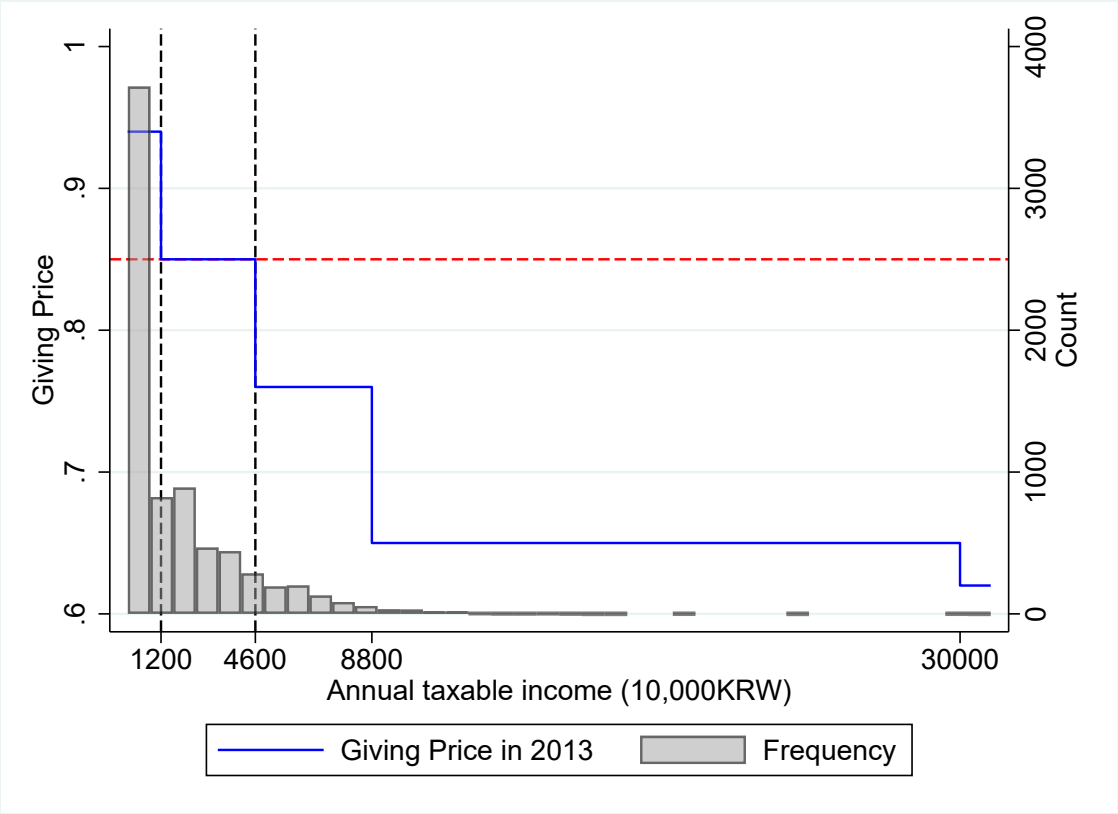

Figure 2: Income Distribution and Giving Price in 2013

- tax credit (after 2014): $\text{Price}_i = 1 - m$
  - In the South Korea, the tax credit rate determines exogeneity, $m = 0.15$.

3.8. Income Distribution and Giving Price

3.9. Empirical Strategy

Our baseline regression equation is

$$\log(\text{Giving}_{ijt}) = \alpha_i + \beta_1 \log(\text{Price}_{ijt}) + \delta X_{ijt} + \lambda_t + \epsilon_{ijt}.$$

- $\log(\text{Giving}_{ijt})$ is logarithm of individual i's charitable giving in year t.
- $\log(\text{Price}_{ijt})$ is logarithm of individual i's giving price in year t.
- β_1 represents the price elasticity of giving.
- α_i and λ_t are individual and time fixed effect, respectively.

3.10. Intensive Margin and Extensive Margin

Let D_{ijt} be a dummy variable taking 1 if individual i whose resident area j in year t donate in year t

- Intensive margin: Estiamte β_1 where outcome variable is $\log(\text{Giving}_{ijt})$, using units with $D_{ijt} = 1$.
- Extensive margin: Estimate β_1 where outcome variable is D_{ijt}.
  - Extensive-margin price elasticity can be calculated by $\beta_1/\bar{D}$ where $\bar{D}$ is the sample mean of D_{ijt}.

Covariates in each column corresponds to a column in a previous slide.

4. Main Results

Placeholder

4.1. Price and Income Elasticity

4.2. Baseline Regressions: Result

4.3. Intensive Margin and Extensive Margin: Result

4.4. Robustness Check

4.5. Robustness Check 1

4.6. Robustness Check 1: Result

4.7. Robustness Check 1: Intensive and Extensive Margin

4.8. Robust Check 2

4.9. Robustness Check 2: Result

4.10. Robustness Check 2: Intensive and Extensive Margin

5. Governement Efficient and Price Elasticity

Placeholder

References