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Essays on Corporate Strategies to Counter the Enforcement of Gift Taxes on the Benefits Tunneled through Abnormal Related-Party Sales

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ABSTRACT

Essays on Corporate Strategies to Counter the Enforcement of Gift Taxes on the Benefits Tunneled through Abnormal Related-Party Sales

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In this dissertation, which comprises of two related but independent essays, I examine how firms engage in strategies to counter the enforcement of gift taxes on the benefits tunneled through abnormal related-party sales (RPS). Prior studies document that related-party transactions (RPT) are a viable tool of transferring the wealth within a business group into the ultimate shareholders (Chang and Hong 2000; Liu et al. 2008; Jian and Wong 2010). Especially, in the products or services market, provided that buyers purchase their necessary inputs mostly from the related suppliers without any reasonable comparison for the quality or price of the products or services from non-related suppliers, the related sellers can increase sales volume easily, which may in turn increase their operating income. And this benefit will finally contribute to boosting the wealth of their shareholders, thereby widening wealth inequality and deteriorating fair competition in the industry. As a way to curb abnormal level of RPS transactions, regulators introduced gift taxes on the benefits tunneled through these transactions in 2012, which is

levied to the ultimate individual controlling shareholders. Below, I briefly explain the two essays in my dissertation.

The first essay examines whether and how managers reduce RPS transactions after the enforcement of gift taxes on RPS. Prior studies present the competing hypotheses for the role of RPT. "Efficiency enhancing view" argues that firms engage in RPT with intent to reduce transaction costs in an imperfect market. On the other hand, "tunneling view" posits that RPT is a viable channel for transferring the wealth within a business group into the ultimate shareholders. From the tunneling view, the Korean regulators have had long concerns over abnormal amounts of RPS, and enforced gift taxes on the benefits tunneled through these transactions in 2012, which are levied to the ultimate individual controlling shareholders. Since such taxes increase with the ratio of RPS to total sales above 30%, the sellers (beneficiary firms) whose shareholders are expected to pay the gift taxes may have incentives to reduce RPS after 2012. However, this tax incentive may conflict with the purpose to enhance business efficiencies through RPS.

Using 1,456 firm-year observations over 2010-2013 and employing a difference-in-differences approach, I find that beneficiary firms are likely to reduce their RPS transactions after 2012, compared with non-beneficiary firms. However, this phenomenon is pronounced solely in the abnormal components of RPS estimated based on Jian and Wong's (2010) methodology, not in its normal components. In addition, it is documented that the tendency of beneficiary firms to reduce RPS is more prevalent when they are in competitive markets than in non-competitive markets, or when the individual controlling shareholders have a higher percentage of ownership. These results suggest that gift taxes on RPS seem to induce managers of

beneficiary firms to reduce RPS transactions, especially when the resulting non-tax costs of losing business efficiencies (the following tax savings) are expected to be lower (higher).

In the second essay, I examine whether and how managers manage operating income (OI) in response to the introduction of gift taxes on RPS. Prior literature documents that managers opportunistically shift items within the income statement (e.g. classifying operating expenses as non-operating expenses) to inflate core earnings. The second essay examines whether a firm changes its classification shifting (CS) behaviors driven by the tax incentive of its controlling shareholders. In Korea, if a firm recognizes abnormal levels of RPS after 2012, its individual controlling shareholders should pay gift taxes on the benefits tunneled through such transactions. And the taxable amount is calculated based on the after-tax OI generated by RPS that exceed 30% of total sales. This suggests that controlling shareholders of beneficiary firms may pressure managers to manipulate OI downward. However, this tax incentive may conflict with financial reporting incentive to inflate OI.

Using 1,460 firm-year observations from 2010 to 2013 and employing a difference-in-differences approach, I find that beneficiary firms exhibit a significant decline in OI-inflating CS activities after 2012, compared with non-beneficiary firms. Furthermore, this phenomenon tends to be more prominent when beneficiary firms do not finance in the public market, or when the percentage of shares owned by individual controlling shareholders is higher. These results suggest that gift taxes on RPS seem to deter managers from engaging in OI-inflating CS activities, especially when the financial reporting concerns over how to report OI are lower, or when the resulting tax savings are expected to be higher.

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I. Introduction

There are two competing hypotheses in determining the role of related-party transactions (hereafter, RPT) within a business group. First, the efficiency enhancing view argues that firms can reduce transaction costs[1] through RPT in an imperfect market (Williamson 1975). In contrast, the tunneling view posits that RPT provides a convenient channel through which the wealth within a business group can be transferred into the ultimate shareholders at the expense of minority shareholders (Chang and Hong 2000; Liu et al. 2008). From the tunneling view, regulators in Korea have had long concerns about abnormal levels of related-party sales (hereafter, RPS).[2] Specifically, through these transactions, sellers which are generally in the low layer of the pyramidal business group can abnormally inflate their sales volume without any competition with other suppliers in the industry for the quality or price of the products or services. This deteriorates fair competition in the industry. Furthermore, since the benefit will finally lead to boosting the wealth of the ultimate shareholders, it results in widening wealth inequality. Accordingly, as

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1) Dahlman (1979) presents that transaction costs consist of search and information costs, bargaining and decision costs, policing and enforcement costs: whereas search and information costs are costs of determining that the required good is available on the market, bargaining costs are the costs required to come to an acceptable agreement with the other party in the transaction. Lastly, policing and enforcement costs are the costs of confirming the other party follows the terms of the contract.

2) A business group can transfer or tunnel its wealth to the ultimate owner through various tactics. For example, the affiliated firm can give each other high (or low) interest rate loans, manipulate transfer prices, or sell assets to each other at above or below market prices (Bertrand et al. 2002). As one of these ways, Korean regulators have been recently concerned about its abnormal scale in products or services markets, and introduced gift taxes on such abnormal levels of RPS in 2012.

a way to curb these transactions, the regulators enforced gift taxes on the benefits tunneled through abnormal levels of RPS[3] in 2012.

Given that the tax increases with the ratio of RPS to total sales above 30%, sellers (hereafter, beneficiary firms), whose shareholders are expected to pay gift taxes on RPS may have incentives to reduce RPS transactions after 2012. This is consistent with the purpose that the regulators introduced such gift taxes. However the aforementioned efficiency enhancing view suggests that reducing RPS may incur non-tax costs of losing business efficiencies. These imply that managers will face a trade-off between tax and non-tax costs in deciding whether or not to reduce RPS transactions to counter the enforcement of gift taxes on RPS. Therefore, I view that it is an interesting empirical question to examine whether and how beneficiary firms change their RPS activities after 2012, and which implications we can infer from the results.

To the extent that PRS plays aforesaid two competing roles, I assume that a firm's decision whether or not to reduce the levels of RPS after 2012 will depend on the reason why a business group has engaged in RPS transactions. Specifically, if it has arranged RPS in a normal business process driven by the incentives to enhance business efficiencies[4], it is likely to retain it even after 2012 because curtailing

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3) The Korean tax law stipulates the abnormally high levels of RPS, based on the ratio of RPS to total sales above 30%.
4) Vertical integration and the following RPS transactions may be desirable in a way to enhance business efficiencies and firm performance. As a relevant example, Muller (2009) presents that whereas Toyota outsources little and Japanese automaker-supplier relations are strategically segmented between partner- and arm's length suppliers, US automakers have outsourced much and relations got worse, which induces the US automakers to face ongoing crisis. This implies that supplier relationship may be decisive for firm performance, and related suppliers can be one solution.

the existing transactions and making new contracts with other non-related parties may incur high transaction costs that outweigh the resulting tax savings (Khanna and Palepu 1997, 2000). On the other hand, in a case that a business group has exploited RPS with other purposes such as a tool for tunneling its wealth to the ultimate shareholders, it would likely accomplish that aim through the other cost-effective channels instead of RPS that may incur tax costs to its ultimate shareholders. To specify these predictions, I adopt the following two approaches.

First, as a way to identify a firm's intention of engaging in RPS transactions, Jian and Wong (2010) suggest classifying RPS into normal and abnormal components by using RPS model. Specifically, they assume that whereas the predicted term in the RPS model, referred to as normal RPS, is related to a firm's normal business activities, the error term, referred to as abnormal RPS, captures other incentives such as tunneling, propping an d earnings management (Jian and Wong 2010; Chen et al. 2012; Yeh et al. 2012). This implies that whereas reducing normal components of RPS can be detrimental to a firm's operations, curtailing abnormal RPS does not likely cause such damages. Thus, I postulate that beneficiary firms are more (less) likely to reduce abnormal (normal) RPS after 2012, compared with non-beneficiary firms that are not associated with the enforcement of gift taxes on RPS.

In addition, I follow the argument of Aghion et al. (2006) that a firm's necessity for RPS depends on market competition. To further discuss, I presume that with regard to abnormal levels of RPS-transactions, the final decision maker will be a buyer presumably in the upper layer of a pyramidal business group. The final decision maker, a buyer can have many outside options to

choose at competitive prices from non-related providers in competitive markets than in non-competitive markets. This implies that although a buyer stops the existing purchases from related suppliers, they can be replaced with the ones from non-related suppliers at relatively low opportunistic costs, in the former markets than in the latter markets (Williamson 1975, 1985). On the other hand, in the non-competitive markets where a buyer has lower bargaining power than a supplier, the buyer may have stronger incentives to formulate its internal markets to limit bargaining inefficiencies, and thus, is likely to be reluctant to reduce related-party purchases (RPP). Therefore, I predict that beneficiary firms are more likely to reduce abnormal levels of RPS transactions when they are in competitive markets than in non-competitive markets.

Lastly, I also consider managers' differential concerns over shareholder-level tax costs. Specifically, I assume that the decision of whether or not to reduce abnormal levels of RPS will be influenced by the percentage of shares owned by individual controlling shareholders for the following reasons. First, a high percentage of controlling-shareholder ownership by itself indicates high gift tax costs because the formula to calculate gift taxes on RPS includes that percentage. Second, a higher percentage of controlling-shareholder ownership implies that those controlling shareholders can pressure managers to reduce RPS activities for their tax purposes. Therefore, I predict that beneficiary firms will exhibit higher decrease in RPS transactions after 2012, when the percentage of shares owned by individual controlling shareholders is higher.

My empirical findings are summarized as follows. First, I find that beneficiary firms are likely to decrease their RPS activities after 2012, compared with non-beneficiary firms. Second, it is documented

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that these phenomena are pronounced only in the abnormal components of RPS, not in its normal parts. Furthermore, beneficiary firms are shown to exhibit higher decrease in RPS transactions when they are in competitive markets than in non-competitive markets. Lastly, my findings reveal that the tendency of beneficiary firms to reduce RPS transactions after 2012 is more prevalent when the percentage of shares owned by individual controlling shareholders is higher. These findings suggest that the enforcement of gift taxes on RPS induces managers of beneficiary firms to reduce their RPS activities, especially when the expected tax savings outweigh the resulting costs of losing business efficiencies. My test results are robust to alternative definitions of beneficiary firms, normal/ abnormal RPS and competitive/ non-competitive markets. In the further analysis, I find that although beneficiary firms reduce their RPS transactions after 2012, their total sales do not change significantly.

This study contributes to the literature on RPT. First, this is the first study to examine a trade-off between tax and non-tax costs in managers' decisions on RPS transactions. The enforcement of gift taxes on RPS in Korea offers a natural setting for a study to examine how managers adjust the levels of RPS transactions according to their relevant concerns over tax and non-tax costs. Second, while prior studies have investigated the two competing roles of RPS within a business group (Chang and Hong 2000; Jian and Wong 2010; Peng et al. 2011; Chen et al. 2012; Yeh et al. 2012), there is little research to examine how managers can change the levels of RPS depending on their purposes to engage in it. My findings show that after abnormal levels of RPS may incur additional costs to their shareholders, managers tend to adjust the levels according to the intention that they carry out such transactions. I believe that this

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study will enlarge our understanding of how RPS transactions are arranged within a business group.

My findings also provide important policy implications. First, my further analysis reveals that even though beneficiary firms stop abnormal levels of RPS, they seem to replace them with non-RPS, thereby implicating that the enforcement of gift taxes on RPS do not shrink market size of those firms. Second, with regard to the finding of H1b that the tendency of beneficiary firms to reduce RPS transactions after 2012 is more prevalent in competitive markets than in non-competitive markets, this indirectly suggests that non-related suppliers in the former markets seem to secure a new channel for their sales transactions, thereby implicating that the opportunities for sales transactions are shared between related and non-related suppliers. This is also consistent with the intention of regulators to enforce such gift taxes. Lastly, my findings reveal that whereas business groups with tunneling incentives may lessen the gift tax liability of ultimate shareholders by reducing the levels of RPS transactions, those with efficiency-enhancing purposes are likely to assume the tax burden unless they take another action to avoid it. This suggests that the relevant regulations need to be revised in a way to tax the suitable beneficiaries, not to obstruct normal business activities.

This study proceeds as follows. Section II analyzes the related institutional background, discusses the prior literature and develops the hypotheses. Section III details sample selection and research design. Section IV lays out descriptive statistics, the main empirical results, and the results of additional analyses. Finally, Section V sets forth my conclusion.

II. Institutional Background, Literature Review and Hypothesis Development

2.1. The enforcement of gift taxes on the benefits tunneled through abnormal related-party sales

Prior studies argue and document that business groups use RPT to tunnel resources to the ultimate shareholders at the expense of minority shareholders (Chang and Hong 2000; Liu et al. 2008). Relatedly, Peng et al. (2011) point out that tunneling is the major behavior of controlling shareholders when firms affiliated with a business group engage in RPT. Especially, considering that more than two-thirds of firms in East Asia are controlled by a single shareholder, separation of management from ownership control is rare, which facilitates relation-based business networks (Ball et al. 2003; Claessens et al. 2003; Hwa et al. 2011). Thus, managers' decisions on RPS transactions are likely to be under the influence of family-controls, and they seem to arrange such transactions for the benefits of controlling shareholders at the expense of minority shareholders. In line with this tunneling view, the Korean regulators have had long concerns over abnormal levels of RPS, and as a relevant sanction to limit these transactions, they enforced gift taxes on the benefits tunneled through such transactions in 2012, which is levied to the ultimate individual controlling shareholders. And the taxable income is calculated by multiplying the following three components: 1) after-tax operating income, 2) ratio of RPS to total sales above 30%, and 3) percentage of shares owned by any individual controlling shareholder above 3%. The first two components in the formula indicate that after-tax operating income generated by abnormal levels of RPS is regarded as the benefits tunneled through

those transactions. In addition, the last component should be multiplied because gift taxes are levied at each individual level. Specifically, any individual controlling shareholder should calculate his/her own taxable income by multiplying after-tax operating income generated by abnormal levels of RPS and the percentage of his/her ownership above 3%.

2.2. RPS-reducing decision: Trade-off between non-tax and tax costs

Since high levels of RPS may incur gift tax costs to the individual controlling shareholders after 2012, a business group may have weak incentives to arrange RPS transactions above the threshold designated by law, which likely induces beneficiary firms to reduce their RPS transactions. This conjecture seems to be supported by the government statistics and the related prior study. For example, Fair Trade Commission (hereafter, FTC) presents that overall, the largest 49 business groups reduce the amounts of RPS as well as the ratio of RPS over total sales after 2012. More relevantly, Lee et al. (2015) document that beneficiary firms reduce the ratio of RPS to total sales after 2012, compared with non-beneficiary firms.

However, this RPS-reducing decision oriented by tax incentives can be obstructive to the positive role of RPS, if any. For example, prior studies argue that information asymmetry between suppliers and buyers in an imperfect market makes it costly to establish reliable contractual relationships, and these bargaining costs can be largely reduced through RPS by forming their own internal market (Williamson 1975; Khanna and Palepu 1997, 2000). Especially, the Korean business group setting seems to have confirmed this argument: after the Korean War in 1950, there was scarce business

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infrastructure such as reliable suppliers. Accordingly, entrepreneurs had to rely on internal markets to acquire necessary inputs for their business, which induces such a business group to be extremely diversified and highly integrated so far (Chang and Choi, 1988; Chang and Hong 2000). These imply that RPS have played a constructive role in limiting bargaining inefficiencies in Korea. Thus, although RPS transactions came to be costly after the enforcement of gift taxes on RPS, beneficiary firms may be reluctant to decrease it. Relatedly, the media states that the gift taxes are levied even on a normal transaction, which hinders business activities. These discussions imply that there is a trade-off between tax and non-tax costs in the RPS-reducing decision in response to the enforcement of gift taxes on RPS. Thus, I predict that after 2012, beneficiary firms are likely to reduce RPS, when the resulting non-tax costs (tax savings) are expected to be low (high).

2.3. The effect of non-tax costs on RPS-reducing decision

In the first analysis, I assume that a firm's decision on whether or not to reduce RPS transactions after 2012 will be influenced by a business group's purposes to engage in it. For example, if a business group has engaged in RPS with intent to transfer its wealth to the ultimate shareholders, it is likely to search for the other cost-effective channels to accomplish that aim, rather than to engage in RPS transactions that may incur gift tax costs to the ultimate shareholders. However, provided that RPS have been used in a normal business process to enhance business efficiencies, such business groups are likely to retain it because giving up the existing transactions and making new contracts with non-related parties may incur high transaction costs that may outweigh the

resulting tax savings (Khanna and Palepu 1997, 2000). Consequently, I conjecture that whereas beneficiary firms with tunneling incentives likely reduce RPS after 2012, those with efficiency-enhancing purposes will have weak incentives to make such a tax-oriented decision. To specify these two sorts of incentives in RPS transactions, I adopt the following two approaches.

Jian and Wong (2010) classify RPT as normal or abnormal components in a similar way of drawing discretionary accounting accruals. Specifically, they view that in the RPS model, the predicted term that is determined by industry classification and some firm characteristics such as size, leverage and growth, is associated with normal business activities, and thus refer to it as normal RPS. On the other hand, they regard the error term as being related to purposes other than normal business process, thereby referring to it as abnormal RPS. Following these classifications, Jian and Wong (2010) document that firms tend to prop up earnings by using abnormal RPS to their controlling owners. This methodology has been extensively used in the recent literature. For example, Yeh et al. (2012) find that abnormal levels of RPS are positively correlated with the condition that firms plan to issue seasoned equity next period and the condition of a decrease in the reported earnings. These findings support the presumption that abnormal RPS estimated based on the methodology of Jian and Wong (2010) is associated with incentives other than normal business activities. Based on these findings, I posit that reducing the abnormal components of RPS will be less harmful to a firm's operations compared with reducing its normal components, and hypothesize as follows:

H1a: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are more (less) likely to reduce abnormal

(normal) related-party sales compared with non-beneficiary firms.

In addition, a firm's necessity for RPS can be captured by the extent of market competition following the argument of Aghion et al. (2006). For the discussions, I first need to identify who initiates abnormal levels of RPS transactions within a business group. I assume that a buyer that is likely in the upper layer of a pyramidal business group will determine whether to formulate internal market by setting up a related supplier or to purchase their necessities from outside non-related parties. In competitive markets, the natural final decision makers, buyers are better informed about their transacting parties' actions (Hart 1983), implying the existence of low information asymmetry. In addition, they seem to have many options to choose at competitive prices from non-related suppliers in competitive markets, implying that they have higher bargaining power than suppliers. Accordingly, buyers in such markets may have weak incentives to formulate internal market from a transaction cost perspective (Aghion et al. 2006). Nonetheless, if a business group is vertically integrated and arranges abnormal levels of RPS in competitive markets, these transactions are likely to be associated with purposes other than limiting bargaining inefficiencies. On the other hand, suppliers in non-competitive markets have higher bargaining power than buyers do, and influence buyers′ operations by raising prices, lowering quality, or reducing availability of their products. In these markets, RPT seem to be a useful tool for buyers to limit bargaining inefficiencies (Williamson 1975, 1985). Taken together, these discussions suggest that reducing RPT is more harmful to a business group in non-competitive markets than that in competitive markets. Therefore, I predict that beneficiary firms in competitive markets will

exhibit a higher decrease in RPS after 2012 than those in non-competitive markets, and hypothesize as follows:

H1b: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are more likely to reduce related-party sales when they are in competitive markets than in noncompetitive markets.

2.4. The effect of tax costs on RPS-reducing decision

From a tax perspective, I conjecture that the decision on whether or not to reduce RPS transactions after 2012 will depend on managers' concerns over shareholder-level tax costs. Specifically, I assume that the percentage of shares owned by individual controlling shareholders is an important factor to induce managers to curtail their RPS transactions after 2012, for the following reasons: First, a high percentage of controlling-shareholder ownership implies that such shareholders can pressure managers to reduce RPS transactions for their gift tax purposes. In addition, a high percentage of controlling-shareholder ownership by itself indicates high gift tax costs because gift taxes on RPS are calculated by reflecting that component. These suggest that beneficiary firms with a high percentage of individual controlling-shareholder ownership are more likely to reduce RPS transactions after 2012. Thus, I hypothesize as follows:

H2: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are more likely to reduce related-party sales when the percentage of shares owned by individual controlling shareholders is higher.

III. Sample and Research Design

3.1. Sample selection

My initial sample comprises firms affiliated with business group according to the Monopoly Regulation and Fair Trade Act, referred to as chaebols from 2010 to 2013. They are large business groups where controlling shareholders can exert control over all group affiliates through indirect pyramidal and circular ownership structure (La Porta et al. 1999; Almeida et al. 2011). RPS are mostly arranged by these large conglomerate organizations as a way of tunneling or propping.[5] Relatedly, the Korean National Tax Service (hereafter, NTS) presents that gift taxes on abnormal levels of RPS have been mostly levied by controlling shareholders of chaebols after its enforcement.[6] Accordingly, I use chaebols to test my hypotheses.

I obtain the list of chaebols from the OPNI website operated by FTC. In addition, I manually collect such affiliated firms' data on RPS and ownership structure from financial statement footnotes and the public announcement of the current status of chaebols, which are provided in the DART website operated by Financial Supervisory Service. I obtain the financial information data of these firms from the KIS-Value database, which is operated by the Korean Information Service (KIS).[7] I only include firms audited by external auditors, following the Act on External Audit of Corporations, and exclude finance companies from the sample because their financial reporting

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5) Johnson et al. (2000) argue that the expropriation threat is especially big in business groups.
6) The NTS reports that they collected KRW 186 billion and KRW 124 billion for the fiscal years of 2012 and 2013, respectively, as gift taxes on RPS. Among these, 43.09% and 82.53% were levied from the individual controlling shareholders of chaebols in 2012 and 2013, respectively.
7) KIS is the largest credit-rating agency in Korea and is affiliated with Moody's Investors Services.

environment differs from that of other companies. The difference-in-differences methodology employed for my hypotheses tests requires two-year observations immediately before and after gift taxes on RPS are enforced, respectively. In addition, to test my hypotheses with balanced panel data, if any required data during the four consecutive years for a firm is missing, I remove the whole observations of that firm. Finally, the final sample consists of 1,456 firm-year observations.[8]

Table 2 shows the number of observations by year for the total and beneficiary samples. Firm are classified as beneficiary firms, if all the following conditions are satisfied based on the year of 2011, which is just before the enforcement of gift taxes on abnormal levels of RPS: 1) the ratio of RPS over total sales exceeds 30%, and 2) the percentage of shares owned by any individual controlling shareholder is above 3%.[9] In addition, considering that gift taxes on RPS are calculated based on after-tax operating income generated by abnormal levels of RPS, if the value is negative for the previous two consecutive years, I assume that these firms will retain the negative performance after 2012, and classify these firms as non-beneficiary firms.[10] As a result, among 1,456 observations, 304 firm-years are

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8) The final sample does not include firms that were merged with the ones within that business group after 2012, because the controlling shareholders of those firms have already avoided gift taxes on RPS by transforming RPS transactions into inside ones within a firm.
9) Gift taxes are levied at the individual level. Accordingly, the tax law stipulates that if any controlling shareholder is a corporation, any individual controlling shareholder of such a corporate shareholder will be subjected to gift taxes on RPS. Thus, I consider both direct and indirect ownership.
10) Among firms that satisfy the aforementioned two requirements in the full sample, 20 firm-years report negative after-tax operating income for the two consecutive years of 2010 and 2011. Although I reclassify these observations into beneficiary firms, the results remain qualitatively similar.

classified as beneficiary firms whose individual controlling shareholders are expected to pay gift taxes on their abnormal levels of RPS after 2012. Table 2 shows that the ratio of beneficiary firms to total firms is about 20.88%. This ratio is much higher than the ratio provided by the NTS (12.90%) based on the actual gift tax return of 2012. Such a higher ratio in my sample seems to be reasonable, considering that it is based on the ex-ante expectation in 2011, before the potential beneficiary firms actually engage in viable tactics to decrease the shareholder-level tax costs (e.g. RPS-reducing decision, operating income management, etc.).

[Insert Table 2 here]

3.2. Empirical model
3.2.1. Measuring normal/ abnormal RPS

As a proxy to identify a firm's incentives in engaging in RPS, I use the concept of normal and abnormal RPS, adopting the methodology of Jian and Wong (2010). They classify RPS into normal and abnormal components, by using the following model:

$$RPS_{jt} = a_0 + a_1 TA_{jt} + a_2 DEBT_{jt} + a_3 GROWTH_{jt}$$
$$+ Industry\ fixed\ effects + \varepsilon_{jt}, \qquad (1)$$

where for firm j and year t, RPS is the ratio of domestic related-party sales to total sales[11]; TA is a natural logarithm of total assets; $DEBT$ is total debts divided by total assets; $GROWTH$ is the change in total assets from the previous year to the current year divided by lagged total assets; $PROS$ is return on sales in the previous year; $LISTED$ is an indicator variable that equals one if the firm is listed in the capital market, and zero otherwise; AGE is a

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11) Gift taxes on RPS are applied only to domestic RPS, not to foreign RPS. Thus, I use domestic RPS measures in the RPS model.

natural logarithm of firm age; all other variables are as previously defined. I also include controls for industry fixed effects and run the regression year-by-year. In Eq. (1), whereas the estimated predicted value is classified as normal RPS, the residual term is the measure of abnormal RPS. The regression results are presented in Appendix 1. The RPS model for the four years has an adjusted R-square ranging from 0.1039 to 0.1164. The coefficients on *TA* are negative and statistically significant in all the four years, indicating that small firms are more likely to engage in RPS. *DEBT* is significantly negative only in 2012. The industry of professional, scientific and technical activities is shown to have high ratio of RPS to total sales.

3.2.2. Measuring market competition

As an alternative way to identify a firm's necessity for RPS, I use a degree of market competition, industry Herfindahl index (*IHERF*). The Herfindahl index is extensively used as a proxy for industry concentration and competition, which is calculated as follows (Berger and Hann 2007):

$$IHERF_j = \sum_{=1}^{n} [s_{ij}/S_j]^2, \tag{2}$$

where for industry *j* and firm *i*, s is a firm's sales in the industry, as defined by a two-digit Standard Industrial Classification code; *S* is the sum of sales for all firms in the industry; *s/S* is a firm's market share in the industry; n is the number of firms in the industry. A high *IHERFj* implies a low level of industry competition for industry *j*. My interest variable *PMC* is the rank transformation of one minus *IHERF*. Therefore, a high *PMC* implies a high level of industry competition.[12]

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12) When I estimate the industry Herfindahl index, I do not restrict the

3.2.3. Regression models

H1 predicts that beneficiary firms are more (less) likely to reduce abnormal (normal) RPS after 2012, compared with non-beneficiary firms. To test this prediction, I employ the difference-in-differences methodology. Specifically, if firms are expected to belong to beneficiary firms after 2012, they may have incentives to decrease their RPS transactions after that year with intent to reduce the shareholder-level tax costs. By contrast, non-beneficiary firms may not have differential incentives in engaging in RPS before and after 2012. Accordingly, I include non-beneficiary firms to control for changes in RPS that are unrelated to the enforcement of gift taxes on RPS. Thus, the sample firms consist of beneficiary firms, plus a benchmark group of non-beneficiary firms. I first confirm whether beneficiary firms engage in RPS-reducing strategy after 2012, compared with non-beneficiary firms, by using the following model of Eq. (3-a) (Jian and Wong 2010). And then I examine whether this phenomenon is shown in determining normal or abnormal RPS through Eq. (3-b) as follows:

$$RPS_{jt} = \beta_0 + \beta_1 BF_{jt} + \beta_2 POST_{jt} + \beta_3 BF_{jt}*POST_{jt} + \beta_4 TA_{jt}$$
$$+ \beta_5 DEBT_{jt} + \beta_6 GROWTH_{jt} + \beta_7 PROS_{jt} + \beta_8 LISTED_{jt}$$
$$+ \beta_9 AGE_{jt} + \beta_{10} CSH_{jt} + \beta_{11} TOP10_{jt} + Year\ Effects$$
$$+ Industry\ Effects + \varepsilon_{jt}, \qquad (3\text{-}a)$$

$$NRPS_{jt}\ (or\ ABRPS_{jt}) = \beta_0 + \beta_1 BF_{jt} + \beta_2 POST_{jt}$$
$$+ \beta_3 BF_{jt}*POST_{jt} + \beta_4 PROS_{jt} + \beta_5 LISTED_{jt} + \beta_6 AGE_{jt}$$
$$+ \beta_7 CSH_{jt} + \beta_8 TOP10_{jt} + \varepsilon_{jt} \qquad (3\text{-}b)$$

where for firm j and year t, $NRPS$ is the predicted value from the

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sample to firms affiliated with business group, and use all firm-year observations audited by external auditors which include both listed and unlisted firms during my sample period.

RPS model of Eq. (1); *ABRPS* is the residual term from Eq. (1); *BF* is an indicator variable that equals one if the firm satisfies the following conditions in 2011, and zero otherwise: 1) the firm does not report after-tax operating loss for the previous two consecutive years, 2) ratio of RPS over total sales exceeds 30%, and 3) the percentage of shares owned by any individual controlling shareholder is above 3%[13]; *PROS* is return on sales in the previous year; *LISTED* is an indicator variable that equals one if the firm is listed in the capital market, and zero otherwise; *AGE* is a natural logarithm of firm age; *CSH* is the percentage of shares owned by controlling shareholders; *TOP10* is an indicator that equals one if the firm belongs to top10 business groups; all other variables are as previously defined. In Eq. (3-a), the variable of interest is the interaction term, *BF*POST* which captures the change of RPS in beneficiary firms after 2012, relative to the corresponding change in non-beneficiary firms. The negative coefficient of β_3 will evidence the existence of RPS-reducing decisions of beneficiary firms after 2012. After such a test, I replace the dependent variable *RPS* with *NRPS* or *ABRPS* in Eq. (3-b). H1a predicts that the coefficient on *BF*POST* is significantly negative only in the regression estimated for the dependent variable, *ABRPS*, not in that for the dependent variable, *NRPS*.

As for control variables, *PROS* is included following Jian and Wong (2010) and Chen et al. (2012). In addition, I include a firm's listing status (*LISTED*) because my sample comprises both listed and unlisted firms, and a firm's dependency on RPS and its purposes for those transactions are expected to differ between the two groups. Specifically, unlisted firms are more likely to engage in RPS

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13) Holding companies are classified as non-beneficiary firms irrespective of whether or not to satisfy the requirements, because those shareholders are exempted from gift taxes on RPS according to the current tax law.

transactions with tunneling incentives compared with listed firms. For firm age (AGE), I expect that beneficiary firms tend to be relatively at the initial stage of their operations. Firms with higher controlling–shareholder ownership are more likely to engage in RPS transactions with tunneling incentives because the benefits from such transactions are expected to be higher for those firms. Lastly, I include TOP10 business groups dummy ($TOP10$) as a proxy for political costs. Politically sensitive firms are expected to less engage in abnormal levels of RPS transactions in order to allay public criticism or government intervention in their business affairs (Raffournier 2006). On the other hand, it is also likely that such visible business groups can avoid close scrutiny from regulators by exploiting their connections, and possibly engage in RPS transactions more (Depoers 2000).

Next, H1b predicts that beneficiary firms in competitive markets have stronger incentives to reduce RPS after 2012, relative to those in non–competitive markets. To test this prediction, I use the following models of Eqs. (4-a) and (4-b) for the full and beneficiary sample, respectively (Aghion et al. 2006):

$$
\begin{aligned}
RPS_{jt} = {} & \beta_0 + \beta_1 BF_{jt} + \beta_2 HPMC_{jt} + \beta_3 POST_{jt} \\
& + \beta_4 BF_{jt}*HPMC_{jt} + \beta_5 HPMC_{jt}*POST_{jt} + \beta_6 BF_{jt}*POST_{jt} \\
& + \beta_7 BF_{jt}*POST_{jt}*HPMC_{jt} + \beta_8 TA_{jt} + \beta_9 DEBT_{jt} \\
& + \beta_{10} GROWTH_{jt} + \beta_{11} PROS_{jt} + \beta_{12} LISTED_{jt} + \beta_{13} AGE_{jt} \\
& + \beta_{14} CSH_{jt} + \beta_{15} TOP10_{jt} + Year\ Effects \\
& + Industry\ Effects + \varepsilon_{jt}, \qquad\qquad (4\text{-a})
\end{aligned}
$$

$$
\begin{aligned}
NRPS_{jt}\ (or\ ABRPS_{jt}) = {} & \beta_0 + \beta_1 BF_{jt} + \beta_2 HPMC_{jt} + \beta_3 POST_{jt} \\
& + \beta_4 BF_{jt}*HPMC_{jt} + \beta_5 HPMC_{jt}*POST_{jt} + \beta_6 BF_{jt}*POST_{jt} \\
& + \beta_7 BF_{jt}*POST_{jt}*HPMC_{jt} + \beta_8 PROS_{jt} + \beta_9 LISTED_{jt} \\
& + \beta_{10} AGE_{jt} + \beta_{11} CSH_{jt} + \beta_{12} TOP10_{jt} + \varepsilon_{jt} \qquad (4\text{-b})
\end{aligned}
$$

where for firm j and year t, $HPMC$ is an indicator variable that

equals one if the industry Herfindahl index of the firm is below the median, and zero otherwise; all other variables are as previously defined. In Eq. (4-a), the variable of interest is $BF*POST*HPMC$ which captures the change of RPS in beneficiary firms in competitive markets, relative to the corresponding change in beneficiary firms in non-competitive markets. The negative coefficient of β_7 will support the argument of H1b that the tendency of beneficiary firms to cut the ratio of RPS to total sales will be more prevalent in competitive markets than in non-competitive markets. Especially, in Eq. (4-b), if the coefficient on $BF*POST*HPMC$ is negative only for the regression with $ABRPS$ as a dependent variable, not for that with $NRPS$ as a dependent variable, it will strongly support H1a as well as H1b.

Lastly, to test H3 whether managers' differential concerns about the shareholder-level tax costs influence their decisions to reduce RPS transactions after 2012, I use the following model of Eqs. (5-a) and (5-b) for the beneficiary firm sample:

(Beneficiary sample)

$$
\begin{aligned}
RPS_{jt} = &\ \beta_0 + \beta_1 HICSH_{jt} + \beta_2 POST_{jt} + \beta_3 HICSH_{jt}*POST_{jt} \\
&+ \beta_4 TA_{jt} + \beta_5 DEBT_{jt} + \beta_6 GROWTH_{jt} + \beta_7 PROS_{jt} \\
&+ \beta_8 LISTED_{jt} + \beta_9 AGE_{jt} + \beta_{10} CSH_{jt} + \beta_{11} TOP10_{jt} \\
&+ Year\ Effects + Industry\ Effects + \varepsilon_{jt} \quad\quad (5\text{-}a)
\end{aligned}
$$

$$
\begin{aligned}
NRPS_{jt}\ (or\ ABRPS_{jt}) = &\ \beta_0 + \beta_1 HICSH_{jt} + \beta_2 POST_{jt} \\
&+ \beta_3 HICSH_{jt}*POST_{jt} + \beta_4 PROS_{jt} + \beta_5 LISTED_{jt} \\
&+ \beta_6 AGE_{jt} + \beta_7 CSH_{jt} + \beta_8 TOP10_{jt} + \varepsilon_{jt} \quad\quad (5\text{-}b)
\end{aligned}
$$

where for firm j and year t, $HICSH$ is an indicator that equals one if the percentage of shares owned by individual controlling shareholders is above the median; all other variables are as previously defined. In Eq. (5-a), the variable of interest is the interaction term, $HICSH *POST$ which captures the change of RPS

in beneficiary firms with the above-median individual controlling shareholder ownership, relative to the corresponding change in beneficiary firms with the below-median individual controlling shareholder ownership. The negative coefficient on $HICSH *POST$ indicates that the tendency of beneficiary firms to reduce the ratio of RPS to total sales is more prominent when the individual controlling shareholders have a higher percentage of ownership. Further, to test whether the results are robust according to a beneficiary firm's incentives for RPS transactions, I repeat the analysis after replacing RPS with $NRPS$ or $ABRPS$ in Eq. (5-b). If the negative coefficient on $HICSH *POST$ is only pronounced in the regression with $ABRPS$ as a dependent variable, not in that with $NRPS$ as a dependent variable, it will support H1a as well as H2.

IV. Empirical Results

4.1. Descriptive statistics

Table 3 presents descriptive statistics for the variables used in my hypotheses tests. All continuous variables are winsorized at the 1% and 99% levels to mitigate the influence of outliers. The mean value of BF is 0.21, indicating that 21% of my sample firms belong to beneficiary firms whose individual controlling shareholders are expected to pay gift taxes on RPS after 2012. RPS has a mean (median) value of 0.28 (0.12). While $NRPS$ has a mean (median) value of 0.28 (0.26), $ABRPS$ has a mean (median) value of 0.00 (-0.09). The mean firm size (TA) is 26.18, which is equivalent to KRW 234,397 million. The mean value of $LISTED$ is 0.32, indicating that 32% of my sample is listed in the capital market. The mean values of $MANU$ and $SERVICE$, 0.32 and 0.52, respectively, indicate that my sample mostly consists of firms with industry membership of

manufacture and service. While *Herfindahl* ranges from 0.12 to 1.00 for the full sample, it ranges from 0.12 to 0.87 for the beneficiary sample. This reveals that my beneficiary sample exhibits substantial cross-sectional differences in market competition to test H1b. The mean value of *ICSH* is 0.31, indicating that the percentage of shares owned by individual controlling shareholders is on average 31% in the beneficiary sample.

[Insert Table 3 here]

Table 4 reports the correlation matrix for the variables used to test my hypotheses. While Panels A and B show the Pearson correlation coefficients for the full sample (N=1,456), Panel C reports those for the beneficiary sample (N=304).[14] In Panel A, the correlation between *BF* and *RPS* is positive and significant (p < 0.01), which seems to be natural, considering that beneficiary firms (*BF*) are defined based on whether or not the ratio of RPS to total sales exceeds 30% in the year of 2011. The positive correlations of *BF* with both *NRPS* and *ABRPS* (coefficient = 0.21 and 0.46; p < 0.01, both) indicate that beneficiary firms report high levels of normal and abnormal RPS compared with non-beneficiary firms. *BF* is negatively correlated with *TA*, *DEBT*, *LISTED* and *AGE*, indicating that beneficiary firms mostly consist of firms with smaller size, lower dependence on external financing both in the debt and equity market, and lower age compared with non-beneficiary firms. On the other hand, *BF* is positively correlated with *Growth*, *CSH*, *TOP10* and *Service*. These indicate that beneficiary firms tend to have higher

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14) In relation to the multicollinearity among the variables used to test my hypotheses, it does not seem to be problematic because the variance inflation factors for the regression estimations in all the main analyses are less than 2.42, which are reasonably low.

growth opportunity, higher controlling-shareholder ownership, affiliation with top10 business groups and industry membership of service.

In Panel C, the negative and statistically significant correlation between $POST$ and RPS measures are only shown in RPS and $ABRPS$, non in $NRPS$. Although these correlations do not control for other factors that influence the decision of RPS transactions, these results suggest the possibility that beneficiary firms may reduce abnormal RPS rather than normal RPS after 2012.

[Insert Table 4 here]

In Table 5, I divide the full sample into two groups, beneficiary and non-beneficiary firms, and report the results of the mean-difference tests for RPS measures and other variables between the two types of firms. The mean of RPS is significantly higher in beneficiary sample (0.597) than in non-beneficiary sample (0.196). In addition, the means of $NRPS$ and $ABRPS$ are also significantly higher in beneficiary sample (0.333 and 0.263) than in non-beneficiary sample (0.266 and -0.070). As expected, in my sample, firms with small size ($SIZE$), low dependency on external financing both in the debt ($DEBT$) and equity markets ($LISTED$), high asset growth ($GROWTH$), low firm age (AGE), and industry membership of service ($SERVICE$) are classified as beneficiary firms.

[Insert Table 5 here]

4.2. Main Results
4.2.1. Test of H1a

Table 6 presents the regression results of Eqs. (3-a) and (3-b), in which I examine whether beneficiary firms tend to reduce

normal or abnormal RPS transactions after the enforcement of gift taxes on RPS in 2012, compared with non-beneficiary firms. For the test, I run three sets of regressions, one each for *RPS*, *NRPS*, and *ABRPS* as dependent variables which are presented in Columns (1)-(2), Columns (3)-(4) and Columns (5)-(6), respectively. Whereas Columns (1), (3) and (5) are the regression results without my interest variables *BF*, *POST* and *BF*POST*, Columns (2), (4) and (6) show those with such variables.

First, when *RPS* is used as a dependent variable, in Column (2), the coefficient on *BF* is positive (coefficient = 0.3831) and significant (p<0.01), indicating that before 2012, beneficiary firms were more likely to engage in RPS transactions than non-beneficiary firms. The insignificant coefficient on *POST* indicates that the extent to which non-beneficiary firms engage in RPS transactions is not significantly changed before and after 2012. On the other hand, the coefficient on *BF*POST* is significantly negative (coeff.= -0.0609; p<0.01), indicating that beneficiary firms are likely to reduce the ratio of RPS to total sales after 2012, compared with non-beneficiary firms.[15] I attribute these results to the enforcement of gift taxes on RPS in that year. Since RPS may incur tax costs to the individual controlling shareholders of beneficiary firms after 2012, such firms seem to make a decision to decrease the levels of such transactions. This result is consistent with the finding of Lee et al. (2015), thereby confirming the evidence of RPS-reducing decision of beneficiary firms after 2012.

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15) For the reference, the number of firms that reduce RPS transactions after 2012 is 148 (40.7%) of the full sample. These firms consist of 46 beneficiary firms and 102 non-beneficiary firms, which are 60.5% and 33.0% of the beneficiary and non-beneficiary sample, respectively. These statistics also suggest that beneficiary firms tend to reduce RPS transactions more after 2012 compared with non-beneficiary firms.

As for control variables, the coefficient on *CSH* is shown to be significantly positive as expected. In addition, the significantly positive coefficient on *TOP10* supports the argument that their viable political connections allow those large business groups to engage in abnormal levels of RPS transactions. In relation to the economic significance of these results, the estimated coefficient on *BF*POST*, -0.0609 in Column (2) indicates that, on average, beneficiary firms exhibit a higher decrease in the ratio of RPS to total sales by 156% after 2012, compared with non-beneficiary firms, when I set all other variables at their respective mean values.[16] This finding suggests that the economic impact is substantial.

Turning to the next four columns, I find that the significance in the negative coefficient on *BF*POST* disappears when *NRPS* is used as a dependent variable in Column (4). On the other hand, in Column (6), when I use *ABRPS* as a dependent variable, the coefficient on *BF*POST* remains negative (-0.0533) and significant ($p<0.01$). These results indicate that beneficiary firms tend to reduce RPS transactions after 2012, compared with non-beneficiary firms, but not in its normal components, mostly in the abnormal parts, which is consistent with the prediction of my H1a. These suggest that although RPS may incur gift tax costs to the shareholders after 2012, beneficiary firms tend to retain the relevant normal transactions, because reducing normal RPS may incur high costs of losing business efficiencies that may outweigh the expected tax savings. Instead, they seem to decide to decrease abnormal RPS with

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16) When I set all variables to their respective mean values, the average magnitude of the ratio of RPS to total sales estimated from the coefficients reported in Column (2) is 0.2825 (0.2802) for beneficiary firms before (after) 2012, and 0.1964 (0.2005) for non-beneficiary firms before (after) 2012.

comparatively low opportunistic costs.

<div align="center">[Insert Table 6 here]</div>

4.2.2. Test of H1b

In Table 7, I examine whether a beneficiary firm's incentives to reduce RPS after 2012 depend on market competition. While Panel A shows the regression results for the full sample, Panel B presents those for the beneficiary sample. In each Panel, Columns (1)-(3) present the results for a dependent variable, *RPS*, *NRPS* and *ABRPS*, respectively.

In Panel A, Column (1) reveals that whereas the coefficient on *BF*POST* is insignificant, that on *BF*POST*HPMC* is negative and significant ($p<0.05$). These results indicate that after the enforcement of gift taxes on RPS, beneficiary firms in competitive markets are more likely to decrease their RPS transactions than those in non-competitive markets, consistent with H1b. For the reason, H1b suggests that the natural decision maker in relation to abnormal levels of RPS transactions within a business group, a buyer may have strong incentives to formulate internal market when it is in noncompetitive markets, presumably because of its lower bargaining power in those markets and the resulting needs for its own suppliers. Consequently, such buyers are less likely to reduce those RPT, and the corresponding related-sellers possibly retain their RPS transactions. On the other hand, in competitive markets, where RPT are likely to be arranged for purposes other than enhancing efficiencies, a business group seems to reduce it with relatively low opportunistic costs. Furthermore, these results indirectly suggest that as a result of the reduced RPS in competitive markets, non-related suppliers in those markets can obtain additional channels to sell their

products or services, thereby implicating that the opportunities of sales transactions are shared between related and non-related suppliers.

In addition, I test whether these results are robust to the classification of normal and abnormal RPS, replacing the dependent variable *RPS* with *NRPS* in Column (2) and *ABRPS* in Column (3). First, I find that the coefficient on *HPMC* is negatively significant only in the regression with *NRPS* as a dependent variable (Column (2)). This suggests that in a case that firms engage in RPS transactions in a normal business process, those in the competitive markets have weaker incentives to formulate internal markets from the transaction costs saving perspective, which strongly supports the argument of Aghion et al. (2006). On the other hand, firms that exploit RPS with tunneling incentives seem to engage in RPS transactions irrespective of market competition before the enforcement of gift taxes on RPS. Next, with regard to my interest variables, the results show that whereas the coefficient on *BF*POST* is insignificant in Columns (2) and (3), that on *BF*POST*HPMC* is negative and significant (p<0.05) only in Column (2). This strongly supports the evidence of Table 6 that normal RPS transactions are not sensitive to the enforcement of gift taxes on RPS. On the other hand, abnormal RPS transactions are likely to be influenced by the introduction of such gift taxes, especially when they are in competitive markets than in non-competitive markets.

Although I repeat these regressions only for the beneficiary sample, the results remain qualitatively similar. In Panel B, the coefficient on *HPMC*POST* is significantly negative only in the regression with *RPS* or *ABRPS* as a dependent variable, not in that with *NRPS* as a dependent variable. Taken together, these results

suggest that the RPS-reducing decision of beneficiary firms after 2012 is mostly driven by those in competitive market, especially for its abnormal components, thereby strongly supporting the argument of H1 that beneficiary firms with purposes other than enhancing business efficiencies are inclined to decrease RPS transactions after such transactions may incur tax costs to their individual controlling shareholders.

<center>[Insert Table 7 here]</center>

4.2.3. Test of H2

Table 8 presents the regression results to test H2, whether a beneficiary firm's RPS-reducing decision relies on managers' concerns over the shareholder-level tax costs. While Column (1) shows the results of estimating Eq. (5-a) using *RPS* as a dependent variable, Columns (2) and (3) report those of Eq. (5-b) using *NRPS* and *ABRPS* as a dependent variable, respectively.

In Column (1), when I use *RPS* as a dependent variable, I find that the coefficient on *HICSH* is positive (0.1071) and significant (p<0.10), indicating that before 2012, beneficiary firms with the above-median individual controlling-shareholder ownership are more likely to engage in RPS transactions than those with the below-median individual controlling-shareholder ownership. On the other hand, the former tends to reduce RPS transactions after 2012, relative to the latter, which is evidenced by the significantly negative coefficient on *HICSH*POST* (p<0.010). This result is consistent with H2, suggesting that beneficiary firms reduce RPS transactions driven by tax incentives, especially when the expected tax savings are higher.

Turning to the next two Columns, interestingly, I find that

<center>29</center>

the coefficient on *HICSH* is insignificant in the regression with *NRPS* as a dependent variable (Column (2)), but still positively significant (p<0.05) in the regression with *ABRPS* as a dependent variable (Column (3)). These results imply that RPS transactions of beneficiary firms with higher individual controlling-shareholder ownership are mostly driven by purposes other than normal business activities. In relation to the variable of interest, the negative coefficient on *HICSH*POST* disappears in the regression with *NRPS* as a dependent variable. By contrast, it remains significantly negative in the regression with *ABRPS* as a dependent variable (Column (3)). To sum up, the results suggest that beneficiary firms tend to reduce abnormal RPS transactions after 2012, especially when they have higher individual controlling-shareholder ownership, thereby strongly supporting both H1 and H2.

[Insert Table 8 here]

4.3. Sensitivity tests and additional analyses
4.3.1. Alternative definitions of variables

I conduct several additional tests to verify the robustness of my findings according to alternative definitions of dependent and test variables. First, I alternatively define *NRPS* and *ABRPS* based on varied RPS models from Eq. (1) as follows: 1) I additionally include profitability (*PROS*), listing status (*LISTED*) and firm age (*AGE*) to the RPS prediction model as determining factors; 2) I use gross as well as industry-adjusted RPS as alternative dependent variables; 3) In relation to the industry classification, I replace 2-digit KSIC code with 1-digit code (Jian and Wong 2010). Although I rerun all my main analyses by using the aforementioned alternative measures of normal and abnormal RPS, the regression results remain qualitatively

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similar, overall.

Second, as a proxy for market competition, I use rank transformation of one minus Herfindahl index in the main analyses. As a robustness check, I generate alternative competition measures based on the number of firms in the industry (Chen et al. 2012). In the regression with a natural logarithm of that number as a competition variable, I find that the results remain qualitatively similar to those presented in Table 7.

Third, in relation to the classification of beneficiary and non-beneficiary sample, the tax law requires beneficiary firms to have positive after-tax operating income. In the main analyses, I assume that firms that have reported after-tax operating loss for the previous two consecutive years before 2012 will retain that negative performance after 2012, and exclude those firms in the beneficiary sample. As a sensitivity check, I reclassify them into beneficiary firms if they satisfy the other two requirements as beneficiary firms, and repeat all my main analyses. The results show that my findings are robust to the alternatively defined beneficiary/ non-beneficiary firms.

4.3.2. Sensitivity tests for RPS-reducing decision

Gift taxes on RPS are more intensified after 2013, with the downward adjustment of the threshold in ratio of RPS to total sales (e.g. from 30% to 15%). This indicates that abnormal levels of RPS transactions may incur higher gift tax costs to their individual controlling shareholders after 2013 than in 2012. Thus, I posit that beneficiary firms will have stronger incentives to reduce RPS transactions after 2013 than in 2012. In order to test these intensified incentives in 2013, I repeat my analyses for the two subsamples, each

excluding the year of 2012 or 2013, respectively. Untabulated results reveal that the coefficient on $BF*POST$ is more significantly negative in the regression excluding 2012 than in the regression excluding 2013, consistent with the prediction.

In addition, I also examine whether beneficiary firms' incentives to reduce RPS are more pronounced near the 30% threshold in the ratio of RPS to total sales. For the test, I redefine beneficiary firms as ones whose ratio of RPS to total sales exists between 30% and 40% in the year of 2011, and repeat my main analyses. The untabulated results show that the significance in the coefficient on $BF*POST$ disappears, inconsistent with my prediction. It is presumably because beneficiary firms tend to have high ratio of RPS to total sales, and thus there are few observations in this zon e.[17] Rather, it is shown that beneficiary firms with higher ratio of RPS over total sales have stronger incentives to reduce RPS transactions after 2012. When I redefine beneficiary firms as ones whose ratio of RPS to total sales is over 40% or over 60%, respectively, based on the year of 2011, the coefficients on $BF*POST$ are significantly negative in both the analyses. And it is more significantly negative in the regression with beneficiary firms defined based on the ratio of RPS to total sales over 60% than over 40%.

4.3.3. Implications for the subsequent social costs

In the main analyses, I find that beneficiary firms tend to reduce RPS transactions after 2012, compared with non-beneficiary firms. Additionally, I examine whether the enforcement of gift taxes on RPS finally influences beneficiary firms' total sales. Provided that their total sales decreased with the reduced RPS transactions, this

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17) Only 11 beneficiary firms exist in this zone.

indicates that gift taxes on RPS may shrink the market size of such firms, thereby incurring social costs. On the other hand, although beneficiary firms reduce their RPS transactions, if their total sales do not change, this may indicate that the beneficiary firms replace the existing RPS with non-RPS transactions.

In order to test these two possible scenarios, I rerun the model of Eq. (3-a) by replacing the dependent variable, *RPS* with *Total Sales*. Panel A of Table 9 presents the regression results. In Column (2), the coefficient on *BF*POST* is statistically insignificant, indicating that beneficiary firms do not exhibit significant difference in total sales before and after 2012, compared with non-beneficiary firms. This result suggests that the reduced RPS of beneficiary firms, which is evidenced through Table 5, seem to be replaced with non-related party sales.

In order to examine how beneficiary firms can retain their sales volume, I first posit that beneficiary firms may offer a discount to non-related buyers. And I test the prediction by regressing *Sales Margin[18]* on my interest variables, *BF*POST* and other control variables. However, Column (3) of Panel A, Table 9 shows that the coefficient on *BF*POST* is not statistically significant, inconsistent with my prediction. As an alternative scenario, I examine under which circumstances beneficiary firms can possibly replace their RPS with non-RPS. Specifically, I conjecture that terminating the current contracts and making new ones with non-related parties may incur higher opportunistic costs when a degree of asset specificity[19] is

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18) *Sales Margin* is sales margin divided by gross sales, where sales margin is gross sales minus cost of sales.
19) Asset specificity is usually defined as the extent to which the investments made to support a particular transaction have a higher value to that transaction than they would have if they were redeployed for any other purpose (McGuinness 1994).

higher. For example, the production of a certain component may require investment in specialized equipment, the distribution of a certain product may necessitate unique physical facilities, or the delivery of a certain service may be predicated on the existence of an uncommon set of professional know-how and skills. Considering that asset specificity is lower in competitive markets than in non-competitive markets, both the seller and buyer within a business group are likely to switch their contracting parties with relatively low opportunistic costs in the former markets than in the latter markets (Williamson 1975, 1985). Thus, I divide the full sample into two groups according to the market competition, and then compare the change in RPS and non-RPS transactions between beneficiary and non-beneficiary firms after 2012 for each subsample. In Panel B of Table 9, the first two Columns show the regression results for the sample firms in competitive markets. The coefficient on $BF*POST$ is significantly negative in the regression with RPS as a dependent variable, whereas it is significantly positive in the regression with non-RPS as a dependent variable. However, these phenomena are not found for firms in non-competitive markets in Columns (3) and (4). These results support the prediction that in response to the enforcement of gift taxes on RPS, beneficiary firms with low asset specificity may possibly replace their RPS with Non-RPS transactions with relatively low opportunistic costs.

[Insert Table 9 here]

V. Conclusions

In relation to the enforcement of gift taxes on the benefits

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tunneled through abnormal levels of RPS, this paper examines whether and how such taxes influence managers' decisions on RPS transactions. After 2012 in Korea, if firms engage in abnormal levels of RPS transactions, their individual controlling shareholders should pay gift taxes on RPS. This implies that abnormal levels of RPS transactions came to be costly after 2012, and thus a rational manager that has incentives to maximize net benefits from an investment is likely to consider such tax costs in engaging in RPS transactions. Scholes et al. (2009) suggest that an ideal tax strategy requires the consideration for all costs including tax and non-tax costs. In my setting, the decision to reduce RPS with an intention of reducing the shareholder-level tax costs may incur non-tax costs of losing business efficiencies. Consequently, beneficiary firms may face a trade-off between tax and non-tax costs in engaging in abnormal levels of RPS transactions after 2012. Thus, in this paper, I conjecture that beneficiary firms are more likely to reduce those transactions when the tax savings are expected to outweigh the resulting costs of losing business efficiencies.

Overall, my empirical findings support my conjecture, and provide some important implications to regulators and the public. The findings reveal that although beneficiary firms exhibit a higher decrease in their RPS transactions after 2012, compared with non-beneficiary firms, this phenomenon is only pronounced in the abnormal components of RPS. This implies that beneficiary firms tend to adjust their high level of RPS transactions only when they are not arranged in a normal business process. Furthermore, I find that beneficiary firms are more likely to reduce RPS after 2012, when they are in competitive market than in non-competitive market. This implies that a final decision maker in relation to the abnormal level

of RPS, a buyer seem to reduce their RPS transactions with relatively low costs in competitive markets because it can have more options to choose from non-related suppliers in these markets. More importantly, this result suggests the possibility that non-related suppliers in the industry where the buyer reduce its existing RPS can secure a new channel to sell their products/services, implying that the opportunities of sales transactions are shared with non-related suppliers. In addition, from a tax perspective, I find that the tendency of beneficiary firms to reduce RPS is more prevalent when the percentage of shares owned by individual majority shareholders increases. In the further analysis, I find that although beneficiary firms reduce their high level of RPS, their total sales are not significantly different before and after 2012. These results implicate that the enforcement of gift taxes on RPS results in the decrease in abnormally high level of RPS, but do not shrink market size of such firms. My study sheds new understanding of the condition under which managers may adjust their RPS transactions to counter the enforcement of gift taxes on abnormal scale of RPS.

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Appendix I. Normal/ Abnormal RPS regressions

Dep. =	*RPS*			
	FY2010	FY2011	FY2012	FY2013
Variables	(1)	(2)	(3)	(4)
TA	−0.0313***	−0.0299**	−0.0349***	−0.0308***
	(−2.77)	(−2.52)	(−3.00)	(−2.84)
DEBT	−0.0869	−0.0632	−0.1511*	−0.0393
	(−1.00)	(−0.73)	(−1.80)	(−0.53)
GROWTH	0.0313	0.0103	−0.0043	0.0984
	(0.45)	(0.16)	(−0.05)	(1.35)
Intercept	0.8274**	0.7959*	0.9220**	0.8041**
	(2.02)	(1.88)	(2.22)	(2.08)
Industry Effects	Included	Included	Included	Included
Observations	364	364	364	364
Adjusted R^2	0.1164	0.1062	0.1039	0.1143

This table reports the regression results of the following RPS model:

Eq. (1): $RPS_{jt} = \beta_0 + \beta_1 TA_{jt} + \beta_2 DEBT_{jt} + \beta_3 GROWTH_{jt}$

$$+ \ Industry \ Effects + \varepsilon_{jt},$$

where the definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 1 Variable Definitions

Variable Name	Definitions
BF	Indicator variable that equals one if the firm satisfies the following conditions in the year of 2011, and zero otherwise: 1) the firm does not report after-tax operating losses for the previous two consecutive years, 2) ratio of RPS over total sales exceeds 30%, and 3) the percentage of shares owned by any individual controlling shareholder is above 3%;
POST	Indicator variable that equals one if the firm-year falls in or after 2012;
RPS	Ratio of domestic related-party sales to total sales;
NRPS (ABRPS)	Normal (Abnormal) related-party sales, which is the predicted (residual) term from the following model regressed year-by-year: $RPS_{jt} = a_0 + a_1 TA_{jt} + a_2 DEBT_{jt} + a_3 GROWTH_{jt} + Industry\ fixed\ effects + \varepsilon_{jt}$;
TA	Natural logarithm of total assets at the year-end;
DEBT	Total debt over total assets at the year-end;
GROWTH	Asset growth, defined as $(TA_t - TA_{t-1})/TA_{t-1}$;
PROS	Return on sales in the previous year;
LISTED	Indicator variable that equals one if the firm is listed in the capital stock market, and zero otherwise;
AGE	Natural logarithm of firm age;
CSH	Percentage of shares owned by controlling shareholders;
TOP10	Indicator variable that equals one if the firm belongs to top 10 business groups, and zero otherwise;
Herfindahl	Industry Herfindahl index;
HPMC	Indicator variable that equals one if the industry Herfindahl index of the firm is below the median, and zero otherwise;
ICSH	Percentage of shares owned by individual controlling shareholders;
HICSH	Indicator variable that equals one if the percentage of shares owned by individual controlling shareholders is above the median, and zero otherwise.

Table 2 Sample Distribution

Year	Total Sample			Beneficiary Firms			B/A
	Total (A)	Listed Firms	Unlisted Firms	Total (B)	Listed Firms	Unlisted Firms	
2010	364	118	246	76	16	60	20.88%
2011	364	118	246	76	16	60	20.88%
2012	364	118	246	76	16	60	20.88%
2013	364	118	246	76	16	60	20.88%
Total	1,456	472	984	304	64	240	20.88%

Table 2 reports distribution of the sample to test my hypotheses. Total sample consists of 1,456 firm-years that belong to business groups under the Monopoly Regulation and Fair Trade Act over the period 2010-2013. Among these, 304 firm-years are classified as potential beneficiary firms whose individual controlling shareholders are expected to pay gift taxes on RPS after 2012.

Table 3 Descriptive Statistics

Variables	N	Mean	SD	Min	Q1	Median	Q3	Max
BF	1,456	0.21	0.41	0.00	0.00	0.00	0.00	1.00
POST	1,456	0.50	0.50	0.00	0.00	0.50	1.00	1.00
RPS	1,456	0.28	0.32	0.00	0.02	0.12	0.49	1.00
NRPS	1,456	0.28	0.13	0.05	0.17	0.26	0.37	0.62
ABRPS	1,456	0.00	0.29	−0.49	−0.20	−0.09	0.15	0.74
TA	1,456	26.18	1.53	22.80	24.97	26.19	27.71	28.14
DEBT	1,456	0.20	0.21	0.00	0.00	0.15	0.32	0.88
GROWTH	1,456	0.11	0.23	−0.32	−0.01	0.06	0.18	1.21
PROS	1,456	0.05	0.16	−0.46	0.01	0.04	0.09	0.71
LISTED	1,456	0.32	0.47	0.00	0.00	0.00	1.00	1.00
AGE	1,456	2.88	0.72	1.39	2.40	2.89	3.43	4.26
CSH	1,456	0.73	0.27	0.00	0.51	0.73	1.00	1.00
TOP10	1,456	0.49	0.50	0.00	0.00	0.00	1.00	1.00
SALES	1,456	26.17	1.99	21.61	24.68	26.12	27.50	30.49
MANU	1,456	0.32	0.47	0.00	0.00	0.00	1.00	1.00
RETAIL	1,456	0.12	0.33	0.00	0.00	0.00	0.00	1.00
SERVICE	1,456	0.52	0.50	0.00	0.00	1.00	1.00	1.00
OTHERS	1,456	0.04	0.19	0.00	0.00	0.00	0.00	1.00
Herfindahl	1,456	0.36	0.24	0.12	0.18	0.25	0.48	1.00
HPMC	1,456	0.51	0.50	0.00	0.00	1.00	1.00	1.00
Herfindahl	304	0.31	0.21	0.12	0.15	0.24	0.37	0.87
ICSH	304	0.31	0.31	0.03	0.09	0.16	0.46	1.00
HICSH	304	0.51	0.50	0.00	0.00	1.00	1.00	1.00

Table 3 reports descriptive statistics for the regression variables used in the hypotheses tests. All variables are winsorized at the 1st and 99th percentile. For the definitions of variables, refer to Table 1.

Table 4 Pearson Correlation Matrix

Panel A) Full Sample (N=1,456)

Variables	BF	POST	RPS	NRPS	ABRPS	HPMC	TA	DEBT	GROWTH
POST	0.00								
RPS	0.51***	−0.01							
NRPS	0.21***	0.00	0.38***						
ABRPS	0.46***	−0.01	0.91***	−0.03					
HPMC	0.09***	−0.01	−0.02	−0.12***	0.03				
TA	−0.14***	0.04	−0.21***	−0.57***	0.02	0.14***			
DEBT	−0.07**	0.03	−0.11***	−0.29***	0.01	0.02	0.18***		
GROWTH	0.07**	−0.20***	0.03	0.07**	0.01	0.00	−0.03	−0.03	
PROS	−0.04*	0.00	0.00	0.10***	−0.05*	0.07**	0.09***	−0.29***	0.09***
LISTED	−0.12***	0.00	−0.19***	−0.22***	−0.11***	0.07**	0.55***	0.07**	−0.04
AGE	−0.12***	0.10***	−0.19***	−0.26***	−0.09***	0.06**	0.43***	−0.02	−0.12***
CSH	0.21***	0.00	0.25***	0.27***	0.15***	0.10***	−0.46***	−0.04	0.07**
TOP10	0.11***	0.00	0.19***	−0.06**	0.22***	0.00	0.12***	−0.16***	0.03
MANU	−0.18***	0.00	−0.16***	−0.36***	−0.01	−0.12***	0.19***	0.15***	−0.02
RETAIL	−0.09***	0.00	−0.13***	−0.34***	0.00	0.03	0.08***	−0.02	0.03
SERVICE	0.25***	0.00	0.28***	0.66***	0.01	0.04*	−0.23***	−0.12***	0.00
OTHERS	−0.06**	0.00	−0.12***	−0.29***	0.00	0.13***	−0.01	−0.02	−0.01

Panel B) Full Sample (N=1,456)_Continued

Variables	*PROS*	*LISTED*	*AGE*	*CSH*	*TOP10*	*MANU*	*RETAIL*	*SERVICE*
LISTED	0.06**							
AGE	0.07**	0.44***						
CSH	−0.01	−0.63***	−0.34***					
TOP10	−0.05**	−0.12***	−0.05*	0.00				
MANU	−0.04	0.13***	0.12***	−0.15***	0.00			
RETAIL	0.00	−0.04	0.00	−0.01	0.03	−0.25***		
SERVICE	0.06**	−0.07**	−0.13***	0.12***	−0.05**	−0.72***	−0.39***	
OTHERS	−0.06**	−0.07**	0.03	0.06**	0.11***	−0.13***	−0.07**	−0.20***

Panel C) Beneficiary Sample (N=304)

Variables	POST	RPS	NRPS	ABRPS	HPMC	HICSH	TA	DEBT	GROW-TH	PROS	LISTED	AGE	CSH
RPS	−0.12**												
NRPS	−0.04	0.19***											
ABRPS	−0.10*	0.87***	−0.31***										
HPMC	0.03	−0.21***	−0.11**	−0.15**									
HICSH	0.00	0.07	−0.04	0.08	0.17***								
TA	0.06	−0.21***	−0.59***	0.09	0.15**	0.03							
DEBT	0.04	−0.03	−0.40***	0.17***	0.08	0.28***	0.13**						
GROWTH	−0.16**	−0.09	0.06	−0.12**	0.08	0.07	0.01	0.03					
PROS	−0.03	−0.03	−0.03	−0.02	0.01	0.14**	0.10*	−0.09	0.10*				
LISTED	0.00	−0.23***	−0.23***	−0.11*	0.02	−0.15**	0.42***	−0.03	−0.05	0.08			
AGE	0.13**	−0.20***	−0.09	−0.15**	0.15**	−0.01	0.33***	0.04	−0.04	0.09	0.43***		
CSH	0.00	0.18***	0.19***	0.08	0.09	0.21***	−0.30***	0.01	0.09	−0.11*	−0.77***	−0.31***	
TOP10	0.00	0.07	−0.03	0.09	−0.22***	−0.25***	0.16***	−0.21***	−0.00	−0.09	−0.14**	−0.15***	0.12**

Table 4 reports pearson correlation matrix for the regression variables used in the hypotheses tests. For the definitions of variables, refer to Table 1. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 5 Univariate Tests between Beneficiary and Non-beneficiary Firms

Variables	Beneficiary Firms (N = 304)		Non-beneficiary Firms (N = 1,152)		Difference (A)-(B)	T-Statistics
	Mean(A)	STD	Mean(B)	STD		
RPS	0.597	0.254	0.196	0.280	0.401	22.65***
NRPS	0.333	0.129	0.266	0.126	0.067	8.17***
ABRPS	0.263	0.261	−0.070	0.261	0.333	19.76***
TA	25.778	1.383	26.286	1.550	−0.508	−5.19***
DEBT	0.167	0.204	0.203	0.208	−0.036	−2.68***
GROWTH	0.141	0.272	0.103	0.220	0.038	2.56***
PROS	0.037	0.120	0.057	0.172	−0.020	−1.91*
LISTED	0.211	0.408	0.354	0.478	−0.144	−4.79***
AGE	2.703	0.581	2.921	0.741	−0.218	−4.75***
CSH	0.842	0.204	0.702	0.273	0.140	8.35***
TOP10	0.579	0.495	0.462	0.499	0.117	3.65***
SALES	25.914	1.641	26.238	2.070	−0.324	−2.53**
MANU	0.158	0.365	0.361	0.481	−0.203	−6.87***
RETAIL	0.066	0.248	0.135	0.342	−0.070	−3.32***
SERVICE	0.763	0.426	0.462	0.499	0.301	9.65***
OTHERS	0.013	0.114	0.042	0.200	−0.029	−2.39**
Herfindahl	0.309	0.205	0.373	0.252	−0.064	−4.08***

Table 5 reports the univariate test results between beneficiary and non-beneficiary firms for the variables used in the hypotheses tests. For the definitions of variables, refer to Table 1. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 6 RPS-Reducing Decision to Counter the Enforcement of Gift Taxes on the Benefits Tunneled through Abnormal RPS: H1a

Dep. =	RPS		NRPS		ABRPS	
Variables	(1)	(2)	(3)	(4)	(5)	(6)
BF		0.3831***		0.0571***		0.3293***
		(11.30)		(3.54)		(9.58)
POST		−0.0060		0.0057*		0.0027
		(−0.55)		(1.96)		(0.37)
BF* POST		**−0.0609***		**−0.0092**		**−0.0533***
		(−3.06)		**(−1.40)**		**(−2.84)**
TA	−0.0303***	−0.0245**				
	(−2.59)	(−2.36)				
DEBT	−0.0388	−0.0067				
	(−0.46)	(−0.09)				
GROWTH	−0.0041	−0.0339				
	(−0.11)	(−1.02)				
PROS	0.0259	0.0752	0.0987***	0.1041***	−0.0754	−0.0451
	(0.26)	(0.80)	(3.10)	(3.21)	(−0.88)	(−0.58)
LISTED	0.0582	0.0293	−0.0091	−0.0121	0.0291	0.0104
	(1.44)	(0.82)	(−0.54)	(−0.72)	(0.81)	(0.31)
AGE	−0.0277	−0.0183	−0.0340***	−0.0325***	−0.0075	0.0037
	(−1.20)	(−0.86)	(−3.55)	(−3.36)	(−0.36)	(0.20)
CSH	0.2801***	0.1557**	0.0933***	0.0736***	0.2126***	0.0998*
	(4.24)	(2.49)	(3.33)	(2.63)	(3.53)	(1.73)
TOP10	0.1667***	0.1300***	−0.0201	−0.0257*	0.1736***	0.1416***
	(5.09)	(4.46)	(−1.50)	(−1.92)	(5.92)	(5.30)
Intercept	0.8682***	0.7222***	0.3125***	0.3117***	−0.2086**	−0.2060***
	(2.80)	(2.65)	(7.91)	(8.03)	(−2.54)	(−2.82)
Year & Industry Effects	Included	Included				
Observations	1,456	1,456	1,456	1,456	1,456	1,456
Adjusted R^2	0.1398	0.3287	0.1271	0.1512	0.1004	0.2643

Table 6 reports the regression results on whether a beneficiary firm tends to reduce RPS transactions to counter the enforcement of gift taxes on RPS in 2012, using Eqs. (3-a) and (3-b). The definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 7 Market Competition and RPS-Reducing Decision: H1b

Panel A: Full Sample

Dep. =	RPS	NRPS	ABRPS
Variables	(1)	(2)	(3)
BF	0.3755***	0.0552**	0.3279***
	(7.05)	(2.13)	(5.91)
HPMC	−0.0461	−0.0484***	−0.0045
	(−1.60)	(−3.80)	(−0.16)
POST	−0.0144	−0.0034	−0.0082
	(−1.05)	(−0.73)	(−0.69)
BF*HPMC	0.0204	0.0097	0.0037
	(0.32)	(0.32)	(0.06)
POST* HPMC	0.0404**	0.0173**	0.0226
	(2.02)	(2.20)	(1.22)
BF*POST	0.0159	−0.0084	0.0195
	(0.66)	(−0.62)	(0.78)
BF*POST*HPMC	**−0.1333***	**−0.0022**	**−0.1249***
	(−3.22)	**(−0.10)**	**(−2.91)**
TA	−0.0221**		
	(−2.10)		
DEBT	−0.0068		
	(−0.09)		
GROWTH	−0.0345		
	(−1.05)		
PROS	0.0779	0.1114***	−0.0457
	(0.83)	(3.40)	(−0.59)
LISTED	0.0313	−0.0043	0.0089
	(0.88)	(−0.25)	(0.27)
AGE	−0.0181	−0.0314***	0.0047
	(−0.86)	(−3.23)	(0.24)
CSH	0.1694***	0.0889***	0.0994*
	(2.67)	(3.17)	(1.69)
TOP10	0.1267***	−0.0258*	0.1396***
	(4.36)	(−1.95)	(5.21)
Intercept	0.6702**	0.3187***	−0.2049***
	(2.42)	(8.44)	(−2.82)

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Panel B: Beneficiary Sample

Dep. =	RPS	NRPS	ABRPS
Variables	(1)	(2)	(3)
HPMC	−0.0430	−0.0528*	−0.0094
	(−0.74)	(−1.99)	(−0.16)
POST	−0.0070	−0.0207	0.0148
	(−0.33)	(−1.50)	(0.66)
HPMC*POST	**−0.0891**	**0.0221**	**−0.0998**
	(−2.50)	**(1.11)**	**(−2.64)**
TA	−0.0204		
	(−0.96)		
DEBT	0.0163		
	(0.14)		
GROWTH	−0.1014**		
	(−2.29)		
PROS	0.0538	−0.0431	0.0292
	(0.32)	(−0.55)	(0.16)
LISTED	−0.0506	−0.0748	−0.0079
	(−0.46)	(−1.57)	(−0.07)
AGE	−0.0172	−0.0046	−0.0242
	(−0.37)	(−0.16)	(−0.46)
CSH	0.1274	0.0134	0.0856
	(0.64)	(0.15)	(0.40)
TOP10	0.0239	−0.0673**	0.0619
	(0.42)	(−2.40)	(1.13)
Intercept	1.1227**	0.4189***	0.2502
	(2.06)	(4.07)	(1.03)
Year & Industry Effects	Included		
Observations	304	304	304
Adjusted R^2	0.1075	0.1029	0.0466

Table 7 reports the regression results on whether the RPS-reducing decision of a beneficiary firm depends on market competition, using Eqs. (4-a) and (4-b). The definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 8 Individual Controlling-Shareholder Ownership and RPS-Reducing Decision: H2

Dep. =	*RPS*	*NRPS*	*ABRPS*
Variables	(1)	(2)	(3)
HICSH	0.1071***	−0.0221	0.1126*
	(2.61)	(−1.03)	(1.70)
POST	−0.0200	−0.0021	−0.0204
	(−0.46)	(−0.12)	(−1.15)
HICSH*POST	**−0.1206***	**−0.0235**	**−0.0996****
	(−1.82)	**(−0.82)**	**(−2.06)**
TA	−0.0287**		
	(−2.43)		
DEBT	−0.0123		
	(−0.18)		
GROWTH	−0.1162**		
	(−2.31)		
PROS	0.0061	−0.0264	−0.0380
	(0.04)	(−0.45)	(−0.21)
LISTED	−0.0522	−0.0803***	−0.0175
	(−0.87)	(−3.10)	(−0.15)
AGE	−0.0217	−0.0085	−0.0309
	(−0.79)	(−0.58)	(−0.60)
CSH	0.0581	0.0093	0.0172
	(0.51)	(0.18)	(0.08)
TOP10	0.0480	−0.0652***	0.0766
	(1.55)	(−4.35)	(1.36)
Intercept	1.3269***	0.4067***	0.2893
	(4.39)	(7.01)	(1.20)
Year & Industry Effects	Included		
Observations	304	304	304
Adjusted R^2	0.0890	0.0906	0.0426

Table 8 reports the regression results on whether the RPS-reducing decision of a beneficiary firm relies on the percentage of shares owned by individual controlling shareholders, using Eqs. (5-a) and (5-b). The definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 9 Implications for the Subsequent Social Costs

Panel A: Changes in Total Sales

Dep. =	Related Sales	Total Sales	Sales Margin
Variables	(1)	(2)	(3)
BF	4.3414***	0.1936	−0.0833**
	(8.41)	(1.36)	(−2.39)
POST	1.0786***	0.0198	−0.0082
	(2.98)	(0.40)	(−0.70)
BF* POST	**−0.8539****	**0.0243**	**0.0122**
	(−2.47)	**(0.50)**	**(1.06)**
TA	1.2798***	0.9041***	−0.0102
	(5.29)	(16.85)	(−1.01)
DEBT	−5.5320***	−0.8386**	−0.1279
	(−2.91)	(−2.45)	(−1.51)
GROWTH	1.5878*	0.3247**	0.0504
	(1.90)	(2.10)	(1.26)
PROS	−0.9325	−1.7875***	
	(−0.34)	(−2.72)	
LISTED	1.5161	0.2042	
	(1.55)	(0.90)	
AGE	−0.6488	0.0550	
	(−1.18)	(0.48)	
CSH	−0.0114	−1.0186***	
	(−0.01)	(−2.77)	
TOP10	1.2343*	0.3260**	
	(1.91)	(2.44)	
TAC			0.0837
			(0.90)
TACLAG			−0.1270
			(−1.61)
SCHANGE			−0.0020
			(−0.07)
Intercept	−10.8964**	3.0601**	0.5931**
	(−1.98)	(2.34)	(2.23)
Year & Industry Effects	Included	Included	Included

Panel B: Changes in RPS and Non-RPS Depending on Market Competition

Dep. =	HPMC=1		HPMC=0	
	Related Sales	Non-Related Sales	Related Sales	Non-Related Sales
	(1)	(2)	(3)	(4)
BF	4.8216***	-0.5955	3.0936***	-0.5963
	(5.76)	(-1.59)	(5.25)	(-1.08)
POST	1.0085*	-0.1764	1.2054***	0.2182
	(1.88)	(-1.57)	(2.67)	(0.94)
BF* POST	**-1.1508***	**0.8056****	**-0.2784**	**-0.6484**
	(-1.96)	**(2.22)**	**(-0.82)**	**(-0.94)**
Control Variables	Included	Included	Included	Included
Year & Industry Effects	Included	Included	Included	Included
Observations	728	728	728	728
Adjusted R^2	0.2775	0.5746	0.2813	0.3169

Table 9 reports the regression results on whether the enforcement of gift taxes on RPS influences beneficiary firms' total sales. The dependent variable, *Total sales* is a natural logarithm of total sales. And *Related sales* (*Non-Related sales*) is a natural logarithm of related sales (non-related sales). *Sales Margin* is sales margin divided by gross sales, where sales margin is gross sales minus cost of sales. For the definitions of other variables, refer to Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Essay 2. Do Managers Manage Earnings Using Classification Shifting to Counter the Enforcement of Gift Taxes on the Benefits Tunneled through Abnormal Related-Party Sales?

I. Introduction

Related party transactions (hereafter, RPTs) have long received substantial attention from regulators worldwide, since the operation of RPTs in business groups provides a convenient channel through which controlling shareholders can transfer resources at the expense of minority shareholders (Chang and Hong 2000; Cheung et al. 2006; Chen et al. 2012). Among RPTs, abnormal levels of related-party sales (hereafter, RPS) have been recently highly criticized in Korea, in that offering the opportunity of sales transactions to related-parties can be a viable tool of transferring the wealth within a business group to the ultimate shareholders without the corresponding tax payment, thereby widening wealth inequality and deteriorating fair competition in the industry. As a way to curb abnormal levels of RPS transactions, gift taxes on the benefits tunneled through these transactions were introduced in 2012, which is levied to the ultimate individual controlling shareholders. In this paper, I examine whether and how beneficiary firms may change their behaviors with intent to reduce the tax costs of their controlling shareholders. Since the taxable amount is calculated based on after-tax operating income generated by abnormal levels of RPS, I conjecture that beneficiary firms may have incentives to manipulate operating income downward. Especially, the recently focused tool of earnings management, classification shifting can provide the opportunity to reduce operating income by classifying non-operating expenses as operating expenses without any change in the bottom-line GAAP earnings.

However, prior studies argue that firms have incentives to inflate operating income for a financial reporting purpose. It is

documented that investors tend to place a higher value on the permanent component of earnings (Beaver 1981; Beaver et al. 1980; Ramesh and Thiagarajan 1993). And within the income statement, it is known that the closer a line item is to sales, the more permanent this item tends to be (e.g., Lipe 1986; Fairfield et al. 1996). These suggest that a manager will have an incentive to inflate upper-line income than bottom-line earnings. As relevant empirical evidence, McVay (2006) finds that managers of U.S. firms tend to opportunistically classify core expenses (cost of goods sold and selling, general and administrative expenses) as special item in order to increase core earnings.[20][21] In addition, Fan et al. (2010) improve the core earnings expectation model developed by McVay (2006), and broadly support her findings by providing the conditions under which managers are more likely to engage in classification shifting (hereafter, CS). Based on these findings, provided that managers tend to classify operating expenses as non-operating expenses for a financial reporting purpose, I posit that managers of beneficiary firms will have conflicting incentives in CS activities after 2012. For example, it is plausible that controlling shareholders who should pay gift taxes based on operating income of beneficiary firms may pressure managers to lower operating income. Thus, my first prediction is that managers of beneficiary firms are less likely to classify operating expenses as non-operating expenses after the

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20) This is equivalent to operating income. Prior studies calculate core earnings as operating income plus depreciation and amortization expenses (McVay 2006; Fan et al. 2010).

21) As an anecdotal evidence of classification shifting, the Securities and Exchange Commission (SEC) determined that Borden, Inc., classified $192 million of marketing expenses as part of a restructuring charge when it should have been included in selling, general, and administrative expenses (Hwang 1994).

enforcement of gift taxes on RPS in 2012.

I further explore under which circumstances beneficiary firms are more likely to change their CS behaviors driven by shareholder-level tax incentives, if any. First, from a financial reporting perspective, I assume that the change in reporting behaviors will be influenced by a firm's needs for public financing. Specifically, unlisted firms are known to mostly use private channels in communicating with interested parties compared with listed firms (Chen et al. 2011), and thus their financial reporting generally tends to be influenced by taxation (Ball and Shivakumar, 2005). In addition, Haw et al. (2014) document that among unlisted firms, firms that do not use public financing even in the debt market are less concerned about public financial reporting than firms that finance in the public debt market by issuing corporate bonds. For the reason, they argue that whereas bondholders are dependent on public information when making investment decisions, banks have private access to firm managers and can directly monitor borrowers. These arguments suggest that public financial reporting is relevantly less important to firms that do not finance in the public market compared with those that use public financing, thereby implying that unlisted firms without public debt are more likely to report financial statement driven by tax incentives. Thus, I predict that beneficiary firms are less likely to shift operating expenses to non-operating expenses after 2012 compared with non-beneficiary firms, especially when they do not finance in the public market.

Lastly, from a tax perspective, I posit that a manager's incentives for the change in CS activities will be influenced by a percentage of shares owned by individual controlling shareholders for the following reasons: 1) higher individual controlling-shareholder

ownership, by itself, means higher gift tax costs because the tax base is calculated by reflecting that component; 2) higher individual controlling-shareholder ownership implies higher influential power that pressures managers to reduce operating income for their tax purposes. Thus, I expect that the change in CS activities of beneficiaries after 2012 will be more prominent when individual controlling-shareholder ownership is higher.

 I begin my empirical analyses with a sample of Korean business groups referred to as chaebol because RPS are mostly arranged by these firms. Among 1,460 firm-year observations over the period 2010‐2013, 228 firm-years are classified as beneficiary firms. In order to examine a change in CS activities of beneficiary firms after 2012, I extend the model developed by McVay (2006) and Fan et al. (2010) by incorporating the tax incentives of individual controlling shareholders. They view that CS in the income statement can be captured by the relation between unexpected core earnings (reported core earnings minus predicted core earnings) and transitory non-operating expenses. Specifically, a positive sign suggests CS from operating expenses to non-operating expenses. I adopt a difference-in-differences approach, and then compare the change in CS activities between beneficiary firms (i.e., treatment firms) and non-beneficiary firms (i.e., control firms) from the pre- to post-enactment periods of gift taxes on RPS.

 My findings are summarized as follows. First, I find that beneficiary firms tend to exhibit more negative associations between unexpected core earnings and transitory non-operating expenses after 2012, compared with non-beneficiary firms. This provides evidence that beneficiary firms are less likely to engage in the operating-income-inflating CS activities after 2012, compared with

non-beneficiary firms. Second, this phenomenon is more prevalent for unlisted firms than for listed firms, further for unlisted firms without public debt than for those with public debt. These suggest that beneficiary firms that mostly communicate with interested parties through private channels have weaker concerns about how to report operating income, which induces such firms to prepare their financial reporting according to tax incentives. Third, my findings reveal that the negative association between unexpected core earnings and transitory non-operating expenses tends to be more pronounced when the percentage of shares owned by individual controlling shareholders is higher. The stronger incentives to reduce shareholder-level tax costs seem to deter managers from engaging in CS activities that inflate operating income. My results are robust to alternative definitions of unexpected core earnings and beneficiary firms. In addition, the insignificant differences in firm performance between beneficiary and non-beneficiary firms after 2012 indicate that my results are not driven by firm performance effects.

This study contributes to the literature on the effect of tax costs on a firm's financial reporting behavior (Dopuch and Pincus, 1988; Cushing and LeClere, 1992; Dhaliwal, Frankel, and Trezevant, 1994; Hunt, Moyer, and Shevlin, 1996). Due to the unique Korean setting where RPS transactions may incur gift tax costs to the ultimate individual controlling shareholders, which are estimated based on operating income, I provide evidence whether and how shareholder-level tax costs can influence a firm's financial reporting behavior. Especially, I examine a firm's behavior change in relation to CS in the income statement, which is evaluated as a new area of research in earnings management. Fan et al. (2010) call for more research on the extent, timing, and incentives under which

environment managers are more (less) likely to engage in CS. My findings document an important factor that influences a manager's CS activities by showing that beneficiary firms whose individual controlling shareholders should pay gift taxes based on their operating income are less likely to classify operating expenses as non-operating expenses. In addition, my findings can provide policy implications to the regulators. As tax strategies for gift taxes on RPS, regulators and researchers mostly focus on the following strategies: incorporating RPS into inside transactions within a firm through M&A, reducing the ratio of RPS to total sales, reducing the percentage of shares owned by individual controlling shareholders, and so on (Chae and Lee 2015; Lee et al. 2015a; Lee et al. 2015b). This paper presents one important viable tool of adjusting the tax base, which is the CS in the income statements.

This study proceeds as follows. Section II presents the related institutional background, discusses the prior literature and develops the hypotheses. Section III details sample selection and research design. Section IV lays out descriptive statistics, the main empirical results, and the results of sensitivity analyses. Finally, Section V sets forth my conclusion.

II. Institutional Background, Literature Review and Hypothesis Development

2.1. The enforcement of gift taxes on the benefits tunneled through abnormal related-party sales

Prior studies document that RPT are viable tools of transferring the wealth within a business group into the ultimate shareholders (Chang and Hong 2000; Liu et al. 2008; Jian and Wong

2010). Especially, in the products or services market, provided that buyers purchase their necessary inputs mostly from the related suppliers without any reasonable comparison for the quality or price of the products or services from non-related suppliers, the sellers can increase sales volume easily, which may in turn increase their operating income. And this benefit will finally contribute to boosting the wealth of their shareholders. Therefore, some business groups have exploited these transactions as a way to transfer the wealth within a business group into the ultimate shareholders. Accordingly, in order to impose a suitable tax on the transferred wealth through abnormal levels of RPS, Korean regulators introduced gift taxes on these benefits, which are levied to the ultimate individual controlling shareholders. And the taxable amount is calculated by multiplying the following three components: 1) after-tax operating income of beneficiary firms; 2) ratio of RPS to total sales above 30%; 3) percentage of shares owned by individual controlling shareholders above 3%. These imply that after-tax operating income generated by abnormal levels of RPS is regarded as the benefits tunneled to individual controlling shareholders as a result of these transactions.

2.2. The change in classification shifting behavior after the enforcement of gift taxes on RPS

As explained above, if a firm recognizes abnormal scales of RPS after 2012, it incurs tax costs to the individual controlling shareholders, which increases with its after-tax operating income. This implies that if a beneficiary firm manages operating income downward, the controlling shareholders can decrease (or avoid) gift tax liabilities resulting from RPS transactions. As a method to manage operating income, prior literature suggests three possible

tools: accrual management, the manipulation of real economic activities and the deliberate misclassification of items within the income statement (McVay 2006). Especially, considering that gift taxes on RPS are calculated based on operating income, not on net income, CS (e.g. classifying non-operating expenses as operating expenses) seems to be an efficient way to decrease operating income for the following reasons. First, when managers manipulate operating income downward through CS, it does not result in a decrease in bottom-line GAAP earnings. This is the strong point of CS, compared with other earnings management tools. Second, since GAAP earnings are not affected, auditors and regulators are less likely to scrutinize it (Nelson et al. 2002). Third, CS is the most cost-effective way among three earnings management tools in that 1) it does not incur a one-to-one cost of earnings reduction in the future compared with accrual-based earnings management. and 2) it does not sacrifice firms' future economic benefits, compared with the method of real activities management such as providing temporary price discounts to increase sales, overproducing inventory to reduce cost of goods sold, and cutting discretionary expenditures (Baber et al. 1991; Bushee 1998; Gunny 2005; Roychowdhury 2006; Cohen and Zarowin 2008).

However, prior studies argue that managers have an incentive to inflate core earnings for a financial reporting purpose. It is known that each income statement item has different information content for future earnings and that the closer a line item is to sales, the more permanent this item tends to be (e.g., Lipe 1986; Fairfield et al. 1996). Since investors tend to place a higher value on the permanent component of earnings (Beaver 1981; Beaver et al. 1980; Ramesh and Thiagarajan 1993), each line item in the income statement does not seem to be homogenously treated by them. For example, investors

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are documented to fixate on core earnings instead of bottom-line GAAP earnings (Bradshaw and Sloan 2002; Bhattacharya et al. 2004; Gu and Chen 2004). This focus of investors on core earnings suggests that managers will have an incentive to inflate upper-line income than bottom-line earnings. And as one way, prior literature documents the evidence of the third earnings management tool, CS. For example, McVay (2006) finds that managers tend to shift expenses from core expenses to special items, which induces core earnings to be overstated without any change in bottom-line earnings.[22] Fan et al. (2010) improve the core earnings expectation model developed by McVay (2006), and broadly support her findings by providing the conditions under which managers are more likely to engage in CS.[23] In addition, Lee et al. (2008) document that listed Korean firms tend to classify operating expenses (equivalent to core expenses) as transitory non-operating expenses (equivalent to special items), using the methodology of McVay (2006).

Given that managers tend to classify operating expenses as non-operating expenses in order to inflate operating income for a financial reporting purpose, managers of beneficiary firms will have conflicting incentives in CS activities after 2012. For example, it is plausible that controlling shareholders who should pay gift taxes

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22) Especially, this phenomenon is more pronounced, when the net benefits from CS are expected to be greater. For example, she finds that managers tend to engage in CS activities to meet the analyst forecast earnings benchmark, as special items are likely to be excluded from both pro forma and analyst earnings definitions.

23) Even though McVay(2006) finds the evidence of CS, she points out the limitation of her core earnings expectations model because her findings are susceptible to whether current accruals are dropped from the model, or not. Relatedly, Fan et al. (2010) use a core earnings expectation model that is not dependent on accrual of special items, and suggest the new methodology to identify CS. The details are explained in the subsection 3.2 of the paper.

based on operating income of beneficiary firms may pressure managers to lower it. Especially, considering that owner‐managers are common in chaebol firms, the tax concern of controlling shareholders can importantly influence such beneficiary firms' CS activities. Thus, I predict that beneficiary firms are less likely to engage in CS activities that inflate operating income after 2012, driven by the tax incentive of their largest shareholders. This can be expressed as the following hypothesis:

H1: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are less likely to classify operating expenses as non-operating expenses.

2.3. The cross-sectional differences in financial reporting incentives

I next consider whether a firm's financial reporting concern will influence its strategy to reduce operating income driven by the shareholder-level tax incentives. Prior studies argue that firms with different financing needs have differential incentives for public financial reporting (Diamond 1991; Bharath et al. 2008; Chen and Zhu 2013; Haw et al. 2014). First, privately held firms (hereafter, unlisted firms) and those with publicly traded equity securities (hereafter, listed firms) are known to face different demands for public accounting information. Specifically, arm's length equity investors of listed firms are known to rely heavily on public information because they do not have private channel to access to corporate information (Burgstahler et al. 2006). In contrast, unlisted firms that have concentrated and greater managerial ownership mostly communicate with interested parties privately, and thus, are less likely to use public financial information in contracting with lenders, managers and

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other parties (Chen et al. 2011). Accordingly, their financial reporting is generally known to be influenced by tax incentives (Ball and Shivakumar, 2005).

Furthermore, prior studies document that even unlisted firms face different demands for reported earnings according to their use of public financing in the debt market.[24] For example, bondholders and banks differ significantly in their ability to access and process information and renegotiate contracts. Specifically, while bondholders have limited access to the private information of borrowers and are therefore dependent on public information when making investment decisions, banks have private access to firm managers and can directly monitor the borrowers (Bharath et al. 2008; Haw et al. 2014). This suggests that unlisted firms with public debt will be more concerned about the presentation of their public financial information. In contrast, for unlisted firms without public debts, earnings play a minor role in communicating performance to outsiders, thus their reporting choices may be governed by other consideration such as the desire to minimize taxes (Burgstahler et al. 2006).

In sum, provided that public financial reporting is relatively less important in communicating with interested parties to firms that do not finance in the public market, it suggests that for these firms, a financial reporting incentive to inflate operating income can be dominated by the tax incentive to reduce it. These discussions lead to my second hypothesis:

H2: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are less likely to classify operating expenses as non-operating expenses when they do not finance in the public

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24) Even though unlisted firms cannot finance in the public equity market, they can use public financing by issuing corporate bonds.

market.

2.4. The cross-sectional differences in tax reporting incentives

I further examine whether or not the change in CS behaviors of beneficiary firms is influenced by managers' concerns over shareholder-level tax costs. I posit that the percentage of shares owned by individual controlling shareholders is an important factor to determine a manager's incentives to change the CS activities driven by the shareholder-level tax costs for the following reasons. First, higher individual controlling-shareholder ownership by itself indicates higher gift tax costs because the tax base is calculated by reflecting those percentages of shares as explained above. Second, higher individual controlling-shareholder ownership implies that those individual controlling shareholders can pressure managers to reduce operating income for their tax incentives. Accordingly, based on these discussions, I hypothesize as follows:

H3: After the enforcement of gift taxes on related-party sales in 2012, beneficiary firms are less likely to classify operating expenses as non-operating expenses when the percentage of shares owned by individual controlling shareholders is higher.

III. Sample and Research Design

3.1. Sample selection

My sample consists of firms affiliated with business group from 2010 to 2013 according to the Monopoly Regulation and Fair Trade Act, referred to as chaebols. They are large business groups where controlling shareholders exert control over all group affiliates

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through indirect pyramidal and circular ownership structure (La Porta et al. 1999; Almeida et al. 2011). RPS seem to be mostly arranged by these large conglomerate organizations as a way of tunneling or propping. Relatedly, National Tax Service (hereafter, NTS) provides the statistics that gift taxes on RPS have been mostly levied by individual controlling shareholders of such chaebol firms after its enactment.[25] Thus, I use chaebols to test my hypotheses.

I collect the list of chaebols from the OPNI website operated by Fair Trade Commission, and data on RPS and ownership structure from the DART website operated by Financial Supervisory Service. For financial information, I obtain data from the KIS-Value database, which is operated by the Korean Information Service (KIS). KIS is the largest credit rating agency in Korea and is affiliated with Moody's Investors Services. I only include firms audited by external auditors, following the Act on External Audit of Stock Companies, and exclude finance companies from the sample because their financial reporting environment differs from that of other companies. And I require a minimum of 10 observations per industry-year,[26] which ensures a sufficiently large sample to estimate expected core earnings. In addition, the difference-in-differences methodology employed for my hypotheses tests requires two-year observations immediately before and after such taxes are introduced, respectively. To test with balanced panel data before and after the year of 2012, it requires four consecutive years for a firm in the sample period. Furthermore, if a firm that is classified as a beneficiary in 2012

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25) According to the Korean NTS, KRW 186 billion and 124 billion were collected in years of 2012 and 2013 as gift taxes on RPS, respectively. Among those, 43.09% in 2012 and 82.53% in 2013 were collected from the individual controlling shareholders of chaebol.
26) Industry classifications are based on two-digit KSIC codes.

(2013) is classified as a non-beneficiary in 2013 (2012), I exclude the 2013 (2012) observation of that firm. Finally, the full sample consists of 1,460 firm-year observations.

Table 2 presents the number of observations by year for the full sample and the beneficiary sample. Among 1,460 observations, 228 firm-years are classified as beneficiary firms whose individual controlling shareholders should pay gift taxes on RPS after 2012. The ratio of beneficiary firms over total sample is about 15.62%, which is a little bit higher compared with 12.90% that NTS reports based on the actual gift tax return in 2012. However, considering that my classification for beneficiary firms is based on the ex-ante possibility that individual shareholders should have paid gift taxes in 2012 or 2013 if they had not engaged in CS, the higher ratio seems to be reasonable.[27]

[Insert Table 2 here]

3.2. Empirical model

To test CS in the income statement, I employ the methodology of McVay (2006) and Fan et al. (2010). The basic idea is that if a manager classifies core expenses as special item with intent to inflate core earnings, core earnings will be overstated in the

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27) Gift taxes on RPS are not levied when beneficiary firms report negative after-tax operating income. However, it is possible that if a beneficiary firm had not engaged in a tax strategy to reduce operating income, it could have reported a positive after-tax operating income. In order not to underestimate beneficiary firms, I do not exclude firms with negative after-tax operating income in the beneficiary sample. However, this classification may reversely overestimate beneficiary firms. In order to address this potential bias, I repeat all my analyses after I reclassify firms with negative after-tax operating income as non-beneficiary firms. My results are robust to the alternative definition of beneficiary firm sample.

year the special item is recognized. Based on this framework, she first develops a core earnings model by controlling for firm performance as well as macroeconomic and industry shocks, and then views the unexplained portion as a measure of abnormal performance, which is referred to as unexpected core earnings. In the next step, she regresses unexpected core earnings on special items. The positive association between unexpected core earnings and special items supports that managers may classify core expenses as special item, thereby confirming the existence of CS activities. Following this methodology, I first measure unexpected core earnings for firm j in the year t, by estimating the following model of Eq. (1) within each industry-year (McVay 2006; Fan et al. 2010).

$$
\begin{aligned}
CE_{jt} = {} & a_0 + a_1 CE_{jt-1} + a_2 ATO_{jt} + a_3 ACCRUALS_{jt-1} \\
& + a_4 \triangle SALES_{jt} + a_5 NEG\_\triangle SALES_{jt} + a_6 UROA_{jt} \\
& + a_7 UROA_{jt-1} + \varepsilon_{jt}
\end{aligned} \qquad (1)
$$

where, for firm j and year t, CE is core earnings, calculated as operating income including depreciation and amortization expenses divided by total sales; Other variables are as defined in Table 1. In the core earnings model, I include core earnings in the previous year (CE_{t-1}), asset turnover ratio (ATO), lagged accruals ($ACCRUALS_{t-1}$), percentage change in sales ($\triangle SALES$), negative percentage change in sales ($NEG\_\triangle SALES$), industry-adjusted profitability in the current year ($UROA$) and industry-adjusted profitability in the prior year ($UROA_{t-1}$). Lagged core earnings (CE_{t-1}) are included because core earnings will be persistent. For asset turnover ratio (ATO), Nissim and Penman (2001) document that it has been inversely related to profit margins. Considering that the definition of core earnings closely parallels profit margins, the association between ATO and CE is

expected to be negative. In relation to accruals, DeAngelo et al. (1994) argue that extreme performance is highly correlated with changes in accrual levels. In addition, Sloan (1996) finds that accrual levels explain future performance. Based on these studies, McVay(2006) includes the current and lagged year accruals in the model. However, Fan et al. (2010) point out that the core earnings model including current accruals as a control for performance may induce a mechanical relation between unexpected core earnings and special items because such items are mainly accrual-based. Thus, I only include lagged accruals ($ACCRUALS_{t-1}$) in the model. In addition, I control percentage change in sales ($\triangle SALES$) and allow different slopes for sales increases and decreases by including negative percentage change in sales ($NEG\_\triangle SALES$). Finally, in order to further control firm performance, I add the current and lagged industry-adjusted profitability to the model. Whereas Fan et al. (2010) use market return, my sample comprises both listed and unlisted firms. Thus, I instead use the ratio of net income to total assets subtracting its industry-year median value. By regressing Eq. (1) within each industry-year, I obtain unexpected core earnings (UCE), calculated as the differences between reported and predicted core earnings.

I then use the following model of Eq. (2) to estimate the association between unexpected core earnings and transitory non-operating expenses (McVay 2006; Fan et al. 2010).

$$UCE_{jt} = a_0 + a_1 TNOE_{jt} + \varepsilon_{jt} \qquad (2)$$

where, for firm j and year t, UCE is unexpected core earnings, calculated as the reported core earnings minus the predicted core

earnings estimated by using Eq. (1); *TNOE* is transitory non-operating expenses divided by total sales, where transitory non-operating expenses are the amount of non-operating expenses excluding interest expenses and losses from equity method. A positive α_1 indicates that unexpected core earnings increase with transitory non-operating expenses. This supports the possibility that firms classify operating expenses as non-operating expenses to inflate core earnings.

However, prior studies document that firms incurring large write-offs or corporate restructuring charges tend to be poor performers (Elliott and Shaw 1988; DeAngelo et al. 1994; Carter 2000). This implies that although firms manage earnings through CS from operating expenses to non-operating expenses, the association between unexpected core earnings and transitory non-operating expenses can be shown to be negative due to performance effects. Thus, in order to identify the existence of CS through the relation between unexpected core earnings and transitory non-operating expenses, Fan et al. (2010) suggest using comparative analyses by showing relative shifting behaviors between firm-groups that are *a priori* more versus less likely to manage core earnings. Specifically, they view that although the overall relation between unexpected core earnings and special items includes both the effects of CS and firm performance, the CS effect may be more prevalent for certain firms because of greater managerial incentives or opportunities. Thus, they suggest breaking down the observations into two groups according to the different levels of managerial incentives and opportunities, and then comparing the relations between unexpected core earnings and transitory non-operating expenses of the two groups. They argue that more positive (or less negative) association in firms with

stronger incentives to inflate operating income than in those with weaker incentives to inflate operating income can be the evidence of CS that classifies operating expenses as non-operating expenses.

Following Fan et al. (2010), I divide my sample into two groups, beneficiary and non-beneficiary firms. H1 predicts that beneficiary firms are less likely to classify operating expenses as non-operating expenses in order not to inflate operating income after the enforcement of gift taxes on RPS in 2012, compared with non-beneficiary firms. To test this prediction, I use difference in differences approach and compare the change in CS behaviors between beneficiary and non-beneficiary firms after 2012 by estimating the following model of Eq. (3).

$$
\begin{aligned}
UCE_{jt} = \ & \beta_1 BF_{jt} + \beta_2 NBF_{jt} + \beta_3 TNOE_{jt}*BF_{jt} + \beta_4 TNOE_{jt}*NBF_{jt} \\
& + \beta_5 BF*POST_{jt} + \beta_6 NBF*POST_{jt} + \beta_7 TNOE_{jt}*BF_{jt}*POST_{jt} \\
& + \beta_8 TNOE_{jt}*NBF_{jt}*POST_{jt} + \varepsilon_{jt} \qquad\qquad (3)
\end{aligned}
$$

where for firm j and year t, BF (NBF) is an indicator variable that equals one if the firm's ultimate individual controlling shareholders are (aren't) expected to pay gift taxes on RPS after 2012, and zero otherwise. Gift taxes on RPS will be levied if the following conditions are satisfied: 1) the firm has positive after-tax operating income, 2) the ratio of RPS over total sales exceeds 30%, and 3) the percentage of shares owned by any individual controlling shareholder is over 3%. In relation to the first condition, the amount of operating income reported in financial statement is ex-post number that already reflects the firm's CS activities. This implies that if I determine beneficiary firms based on ex-post operating income, there is a potential bias to underestimate the beneficiary sample. In order to test my hypotheses, beneficiary firms should consist of firms whose individual controlling

shareholders should have paid gift taxes on RPS if they had not managed operating income using CS. Thus, when I classify firms into beneficiary and non-beneficiary firms, I only consider the last two conditions.[28]; *POST* is an indicator if the firm-year falls in or after 2012, and zero otherwise; all other variables are as defined previously. Based on the framework of Fan et al. (2010), the significantly negative coefficient on *TNOE*BF*POST* indicates that beneficiary firms are less likely to classify operating expenses as non-operating expenses after 2012 than they were before 2012. Furthermore, if the coefficient on *TNOE*BF*POST* is more negative than that on *TNOE*NBF*POST*, and the difference is statistically significant, it indicates that beneficiary firms are less likely to shift operating expenses to non-operating expenses after 2012 than non-beneficiary firms, which is consistent with the prediction of H1.

My second hypothesis is that the mitigated CS activities of beneficiary firms after 2012 will be more pronounced when firms do not finance in the public market. To test this prediction, I estimate the above model of Eq. (3) for the subsamples according to a firm's use of public financing. If β_7 is more negative than β_8, and the difference is significant only in the unlisted firm sample, not in the listed firm sample, it will be consistent with the prediction of H2. Furthermore, if this phenomenon is most prevalent in the sample of unlisted firms without public debt, it will strongly support H2.

Lastly, my third prediction is that the mitigated CS activities of beneficiary firms after 2012 will be more prevalent when the percentage of shares owned by individual controlling shareholders is higher. For the test, I estimate the following model of Eq. (4) for the

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28) As a robustness test, although I exclude firms with negative after-tax operating income from the beneficiary sample, the results are qualitatively similar.

beneficiary firm sample.

$$UCE_{jt} = \beta_1 HSHARE_{jt} + \beta_2 LSHARE_{jt} + \beta_3 TNOE_{jt}*HSHARE_{jt}$$
$$+ \beta_4 TNOE_{jt}*LSHARE_{jt} + \beta_5 HSHARE*POST_{jt}$$
$$+ \beta_6 LSHARE*POST_{jt} + \beta_7 TNOE_{jt}*HSHARE_{jt}*POST_{jt}$$
$$+ \beta_8 TNOE_{jt}*LSHARE_{jt}*POST_{jt} + \varepsilon_{jt}, \qquad (4)$$

where for firm j and year t, *HSHARE* (*LSHARE*) is an indicator variable that equals one if the percentage of shares owned by individual controlling shareholders is the above 25% (the below 75%); all other variables are as defined previously. If the coefficient on *TNOE*HSHARE*POST* is more negative than that on *TNOE*LSHARE*POST*, and the difference is statistically significant, it indicates that beneficiary firms are less likely to classify operating expenses as non-operating expenses when the shareholding rate of largest shareholders is higher, consistent with H3.

IV. Empirical Results

4.1. Descriptive statistics

Table 3 presents descriptive statistics for the variables used in my hypothesis tests. The mean (median) value of core earnings divided by total sales (*CE*) is 0.105 (0.056). The mean (median) of unexpected core earnings divided by total sales (*UCE*) is 0.006 (0.000). Transitory non-operating expenses scaled by total sales (*TNOE*) have a mean (median) of 0.041 (0.012). *BF* has a mean value of 0.156, which indicates that about 15.6% of the sample firms are classified as beneficiary firms whose individual controlling shareholders should pay gift taxes on RPS after 2012. The mean

value of *LISTED* (*DPUB*) is 0.334 (0.353), which indicates that 33.4% (35.3%) of observations finances in the public equity (debt) market.

[Insert Table 3 here]

Table 4 reports the Pearson correlations among the variables employed in my hypotheses tests. The correlation between *CE* and *CELAG* is positive (coefficient = 0.78) and significant ($p < 0.01$), confirming the persistence of firm performance. *UCE* is positively correlated with *TNOE* (coefficient = 0.00), but it is statistically insignificant, probably due to the mixed effects of firm performance and CS, suggesting the use of comparative analyses to identify the existence of CS (Fan et al. 2010). *BF* is negatively correlated with *LISTED* and *DPUB* ($p < 0.05$ and $p < 0.01$, respectively), indicating that beneficiary firms mostly consist of firms that do not finance in the public market.

[Insert Table 4 here]

Table 6 shows the regression results of Eq. (2).[29] As discussed, the association between unexpected core earnings (*UCE*) and transitory non-operating expenses (*TNOE*) can be either positive or negative according to the relative dominance between firm performance and CS effects. Similar to Fan et al. (2010), in order to examine how controlling for performance effects in Eq. (2) affects such relations, I present a model that does not provide any controls for performance in Column (1) and then progressively add more controls through Columns (2)–(4). First, when unexpected core

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29) Table 6 is similar to Table 4 of Fan et al. (2010). Note that I use clustered standard errors by firm to calculate t-values for all regression analyses reported in this study.

earnings are defined as core earnings which means that the expected core earnings model do not control for performance (Column (1)), I find the significantly negative coefficient on *TNOE* (p < 0.10). In Columns (2)–(4), unexpected core earnings are calculated using the coefficients from Eqs. (5), (6) and (1), respectively, within each industry–year. Eq. (5) assumes that expected core earnings in the current year are a function of only core earnings in the previous year. Eq. (6) is the one used in McVay (2006), except that it excludes current–year accruals.

$$CE_{jt} = a_0 + a_1 CE_{jt-1} + \varepsilon_{jt} \tag{5}$$

$$CE_{jt} = a_0 + a_1 CE_{jt-1} + a_2 ATO_{jt} + a_3 ACCRUALS_{jt-1}$$
$$+ a_4 \triangle SALES_{jt} + a_5 NEG\_\triangle SALES_{jt} + \varepsilon_{jt} \tag{6}$$

In Table 6, the negative coefficient on *TNOE* decreases from –0.1523 in Column (1) to –0.0947 in Column (2), and its statistical significance disappears. Furthermore, when I add more controls for firm performance to the model in the next two Columns, the coefficient on *TNOE* becomes to be less negative in Column (3) and is changed to be positive in Column (4), even though it is statistically insignificant. In sum, these results suggest that the negative relation between *UCE* and *TNOE* driven by performance effect tends to diminish if I provide additional controls for performance. These are consistent with the findings of Fan et al. (2010).

[Insert Table 6 here]

4.2. Main results

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4.2.1. Test of H1

Table 7 shows the results on whether a beneficiary firm changes its CS activities after the enactment of gift taxes on RPS in 2012. H1 predicts that individual controlling shareholders subject to gift taxes on RPS after 2012 will deter managers from classifying operating expenses as non-operating expenses with an intention of reducing their gift tax liabilities. To test this prediction, I classify the full sample into beneficiary and non-beneficiary sample, depending on whether or not any individual controlling shareholders are expected to pay gift taxes on RPS after 2012. As a dependent variable, UCE, I use the error term from the full model of Eq. (1) in Column (1). The regression results show that the coefficient on $TNOE*BF*POST$ (-0.7747) is significantly negative (p < 0.01) while that on $TNOE*NBF*POST$ (-0.0052) is insignificant. And the difference between the two estimated coefficients (-0.7695) is statistically significant (p < 0.01). These results suggest that beneficiary firms are less likely to classify operating expenses as non-operating expenses after 2012, compared with non-beneficiary firms. Next, in Column (2), I repeat the analysis by using alternative measure for the dependent variable, UCE, which is estimated based on the McVay's (2006) model of Eq. (6) excluding current-year accruals. However, the results are qualitatively similar to those presented in Column (1). The coefficient on $TNOE*BF*POST$ (-0.2839) is more negative than that on $TNOE*NBF*POST$ (0.0559), and the difference (-0.3398) is also statistically significant (p < 0.05). These results suggest that beneficiary firms are less likely to engage in CS that inflates operating income after 2012, compared with non-beneficiary firms.[30]

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30) As a result of the mitigated CS activities, a beneficiary firm is estimated to reduce the gift tax liability of their controlling shareholders on average by 107 million, which is about 5% of the estimated gift taxes

Individual controlling shareholders who should pay gift taxes on RPS based on operating income seem to deter managers from engaging in CS activities.

[Insert Table 7 here]

4.2.2. Test of H2

In Table 8, I examine whether the findings discovered in Table 7 rely on firms′ financial reporting incentives. While Panel A shows the effect of public equity financing, Panel B examines that of public debt financing. In Panel A, I split the sample into listed and unlisted firms, and then repeat the analysis of Eq. (3) for these two subsamples. Whereas Columns (1) and (2) present the regression results for the listed firms, Columns (3) and (4) show those for the unlisted firms. As a dependent variable, *UCE*, I use the error term from the full model of Eq. (1) (Columns (1) and (3)), and that from the McVay's (2006) model of Eq. (6) excluding current-year accruals (Columns (2) and (4)). In the sample of listed firms (Columns (1) and (2)), a more negative coefficient on *TNOE*BF*POST* than that on *TNOE*NBF*POST* disappears, and the difference of those coefficients is not statistically significant. On the other hand, in the sample of unlisted firms (Columns (3) and (4)), the coefficient on *TNOE*BF*POST* is still more negative than that on *TNOE*NBF*POST*, and the difference is significant (both, p < 0.01). These results suggest that beneficiary firms tend to reduce the operating-income-inflating CS activities after the enforcement of gift taxes on RPS compared with non-beneficiary firms, especially when they do not finance in the public equity market, which is consistent with the prediction of H2.

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payable.

Next, in Panel B, I divide unlisted firms into firms with public debt and those without public debt, and then repeat the analyses of Eq. (3) for these two subsamples. In the sample of unlisted firms with public debt (Column (1) and (2)), I find that beneficiary firms are not likely to change their CS behaviors after 2012 compared with non-beneficiary firms. Both the coefficients on *TNOE*BF*POST* and on *TNOE*NBF*POST* are not significant, and the difference of these coefficients is not significant, neither. However, when I use the sample of unlisted firms without public debt (Columns (3) and (4)), I find that the coefficient on *TNOE*BF*POST* is more negative than that on *TNOE*NBF*POST*, and the difference is statistically significant ($p < 0.01$ and $p < 0.05$, respectively in Columns (3) and (4)). These results indicate that unlisted beneficiary firms that do not use public financing even in the debt market are likely to reduce operating-income-inflating CS after 2012 compared with non-beneficiary firms. On the other hand, unlisted beneficiary firms that use public financing through the debt market do not reveal any change in their CS behaviors after 2012.

Taken together, the results of Panels A and B in Table 8 suggest that the tax incentives to reduce operating income seem to be more pronounced, especially when firms do not finance in the public market.

[Insert Table 8 here]

4.2.3. Test of H3

Table 9 presents the regression results of my third hypothesis. It predicts that beneficiary firms are less likely to manage earnings upward after 2012 compared with non-beneficiary firms, especially when the individual controlling shareholders have higher

percentage of ownership. To test this prediction, I use the beneficiary sample, and split the sample into two groups according to the individual controlling-shareholder ownership. While high ownership group consists of firms with the above 25% of the individual controlling-shareholder ownership in Columns (1) and (2), it comprises the above 10% in Columns (3) and (4). Low ownership group consists of the observations which do not belong to the high ownership group. In Columns (1) and (2), the coefficients on *TNOE*HSHARE*POST* (-0.8632 and -0.5600, respectively) are more negative than those on *TNOE*LSHARE*POST* (-0.3735 and 0.7317, respectively). But the difference is only significant in Column (2), probably due to low power of the tests driven by the small sample. Next, in Columns (3) and (4), I also find that the coefficients on *TNOE*HSHARE*POST* (-0.9304 and -0.4503, respectively) are more negative than those on *TNOE*LSHARE*POST* (-0.5824 and 0.0230, respectively). And the difference is significant only in Column (3). Overall, the evidence supports the prediction of H3 that beneficiary firms tend to reduce operating-income-inflating CS activities after 2012 compared with non-beneficiary firms, especially when the percentage of shares owned by individual controlling shareholders is higher.

[Insert Table 9 here]

4.3. Sensitivity tests and additional analyses
4.3.1. Sensitivity tests for firm performance effects

In the main analyses, I find that beneficiary firms tend to exhibit the negative association between unexpected core earnings and transitory non-operating expenses after 2012, compared with non-beneficiary firms. I attribute these results to the reduction in

operating-income-inflating CS activities because the individual controlling shareholders of these beneficiary firms should pay gift taxes on RPS based on their operating income from that year. However, as an alternative explanation, one can argue that the worsened performance of beneficiary firms after 2012 may induce such a negative association. In order to address this possibility, I examine how the performance of beneficiary firms is changed before and after 2012, compared with that of non-beneficiary firms. As a proxy for firm performance, I use core earnings (CE), which is operating income plus depreciation and amortization expenses divided by total sales. The test shows that in the beneficiary sample (N = 228), the mean value of CE after 2012 (0.0533) is lower than the mean of CE before 2012 (0.0544), but the difference (-0.0010) is not significant (p = 0.96). In addition, the change in the mean value of CE before and after 2012 is not significant (p = 0.96) in the non-beneficiary sample (N = 1,232), neither. Above all, the difference in changes of the mean of CE before and after 2012 between the two groups (0.0005) is not significant (p = 0.99). These suggest that the negative relation between unexpected core earnings and transitory non-operating expenses is not driven by firm performance, strongly supporting H1.

4.3.2. Alternative definitions of variables

Next, in order to mitigate the concern that beneficiary firms with negative after-tax operating income may drive the results, I repeat all my analyses after reclassifying beneficiary firms with negative after-tax operating income as non-beneficiary firms. As a result, 22 firm-year observations are reclassified from beneficiary group to non-beneficiary group. Untabulate results reveal that for the

full sample, the coefficient on *TNOE*BF*POST* (-0.6258) is more negative than that on *TNOE*NBF*POST* (-0.0051), and the difference is statistically significant ($p < 0.01$). I also find that these phenomena are most prevalent in the subsample of unlisted firms without public debt. In that sample, the coefficient on *TNOE*BF*POST* (-0.7615) is more negative than that on *TNOE*NBF*POST* (0.0831), and the difference is statistically significant ($p < 0.01$). Next, with regard to the effect of differential tax incentive, it is revealed that the coefficient on *TNOE*HSHARE*POST* (-0.8245) is more negative than that on *TNOE*LSHARE*POST* (-0.3508), and the difference is statistically significant ($p < 0.10$). In sum, these results show that my main test results are robust to whether or not I include firms with negative after-tax operating income as beneficiary firms.

4.3.3. Controlling for the effect of change in accounting standards

One can argue that the mitigated operating-income-inflating CS activities may be driven by the change in accounting standards in relation to the presentation and definition of operating income. Specifically, with the adoption of the International Financial Reporting Standards (IFRS) in 2011, a firm could have discretion about whether and how to report operating income in the income statement. However, since this discretion might deteriorate financial information comparability across firms, regulators revised the relevant accounting standards, and as a result, a firm should report operating income in the income statement from 2012. Especially, operating income came to be defined with the amount of sales margins minus selling, general and administrative expenses from 2013. These changes in accounting

standards suggest that my test results may be driven by the changes in accounting standards. Specifically, the adoption of the K-IFRS may induce CS activities more practicable after 2011. And then with the revision of the K-IFRS that requires to disclose operating income in 2012, CS activities may be limited. Furthermore, according that the operating income came to be defined in late 2012, CS activities might be more restricted. In order to mitigate these concerns, I employ the following two approaches.

First, I repeat all my analyses after deleting the observations of 2013. The results are presented in Panel A of Table 10. Column (1) shows that although I exclude the observations of 2012, the coefficient on *TNOE*BF*POST* is more negative than that on *TNOE*NBF*POST*, and the difference is statistically significant (p < 0.10), consistent with the results in the main analyses.

Second, I repeat main tests for the sample of K-GAAP users, who are not affected by the change in accounting standards. The adoption of K-IFRS in 2011 is mandatory for listed firms, but it is a voluntary option for unlisted firms. My sample comprises both listed and unlisted firms. Whereas all the listed firms are K-IFRS adopters, 363 observations in the unlisted firms (N=972) remain as K-GAAP users. In Panel A of Table 10, Columns (2) and (3) present the regression results for K-IFRS adopters and K-GAAP users, respectively. I find that a more negative coefficient on *TNOE*BF*POST* than than on *TNOE*NBF*POST* is only pronounced in the K-GAAP sample, not in the K-IFRS sample. These suggest that my findings are not driven by the change in accounting standards in relation to the presentation and definition of operating income, thereby strongly supporting my hypotheses.

4.3.4. Sensitivity tests for financial reporting costs

My second analysis hypothesizes that the mitigated CS activities will be more pronounced when a beneficiary firm has lower financial reporting concerns to inflate operating income. In the main analyses, as a proxy for financial reporting costs, I use whether firms finance in the public market in the main analyses. As alternative proxies for financial reporting concerns, I additionally use leverage and financial distress measure (Altman's Z-score) (Watts and Zimmerman 1986; Bartov 1993). High/low leverage and distressed/non-distressed firms are identified based on the years of 2012 and 2013. Panel B of Table 10 shows that the mitigated CS activities of beneficiary firms after 2012 are only pronounced in the samples of firms with low leverage or those without financial distress. These suggest that highly leveraged firms and financially distressed firms are more concerned about how to present their operating income, which seems to deter those firms from engaging in operating-income-deflating CS activities.

4.3.5. Trade-off between RPS-reducing decision and earnings management using CS

In my first essay, I find that beneficiary firms tend to engage in RPS-reducing decision to counter the enforcement of gift taxes on RPS. In this section, I examine how managers combine the two strategies of RPS-reducing decision and operating-income-deflating CS activities in order to reduce the gift tax liability of their controlling shareholders. First, with regard to the sequence of the two decisions, RPS-reducing decisions will have to be executed and realized by the fiscal year-end. And after these decisions, managers can still adjust such gift tax amounts by managing operating income

downward using CS. Thus, managers are likely to compare the relative costs of the two decisions, and then to decide which strategy they will engage in. Specifically, RPS-reducing decisions are expected to be much more costly compared to the decisions of CS. And according to the argument of my first essay, RPS-reducing decisions will be much more costly for firms that engage in RPS transactions in a normal business process to enhance business efficiencies rather than those that have tunneling purposes. Thus, I predict that firms with efficiency-enhancing purposes through RPS transactions are more likely to engage in operating-income-deflating CS activities instead of reducing RPS. In addition, firms that did not reduce RPS sufficiently by the fiscal year-end will have stronger incentives to engage in operating-income-deflating CS activities. In order to test these predictions, I repeat my main analyses by using the following subsamples, 1) firms with positive versus negative abnormal RPS and 2) firms reducing RPS sufficiently or not.

Panel C of Table 10 presents the regression results for the above mentioned four subsamples. It reveals that the mitigated operating-income-inflating CS activities of beneficiary firms after 2012 are more pronounced when they have negative abnormal RPS (Column (2)) or when they do not reduce RPS transactions sufficiently (Column (4)). These suggest that managers seem to trade off the two strategies based on their relative costs, and adjust their CS activities according to the RPS reduction realized.

[Insert Table 10 here]

V. Conclusions

This paper examines whether and how managers change their

financial reporting behaviors to counter the enforcement of gift taxes on RPS. In Korea, if a firm recognizes abnormal levels of RPS after 2012, its ultimate individual controlling shareholders should pay gift taxes, based on after-tax operating income generated by them. Thus, in the paper, I posit that beneficiary firms whose controlling shareholders are expected to pay gift taxes on RPS may have incentives to manipulate operating income downward. Especially, prior studies suggest that among earnings management tools, the CS of items within the income statement provides the opportunity to manipulate operating income without any change in bottom line GAAP earnings. However, prior studies also document that investors tend to fixate on operating income instead of GAAP-earnings, thus managers have incentives to inflate operating income for a financial reporting purpose. These suggest that beneficiary firms will have competing incentives in engaging in the CS activities from the financial and tax reporting perspectives after 2012. In order to examine a firm's CS activities in the income statement, I follow the methodology of McVay (2006) and Fan et al. (2010). They view that the positive relation between unexpected core earnings and special item provides the possibility that operating expenses may be shifted to special items.

Using the sample of Korean chaebols, I document that beneficiary firms exhibit the negative association between unexpected core earnings and transitory non-operating expenses after 2012 compared with non-beneficiary firms. This suggests that beneficiary firms are less likely to classify operating expenses as non-operating expenses after 2012 compared with non-beneficiary firms, presumably in order not to increase the shareholder-level gift tax costs. Furthermore, this phenomenon is more prevalent when they do not

finance in the public market, or when the percentage of shares owned by individual controlling shareholders is higher. These suggest that tax incentives to decrease operating income can dominate the financial reporting incentives to inflate it when there are lower financial reporting concerns or higher tax incentives. Additionally, I show that my results are not driven by the worsened performance of beneficiary firms after 2012 and the change in accounting standards. Furthermore, my test results are robust to the alternative definitions of beneficiary firms, unexpected core earnings and financial reporting costs. I hope that my findings will enlarge the understanding of CS activities in chaebols before and after 2012 and provide regulators with the implication that the CS in the income statement can be a viable tool of reducing gift taxes on RPS.

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Table 1 Variable Definitions

Variable Name	Definition
CE	Core earnings, calculated as (total sales – cost of goods sold – selling, general, and administrative expenses + depreciation + amortization)/total sales;
UCE	Unexpected core earnings, calculated as reported core earnings (*CE*) minus expected core earnings from the following model regressed by industry-year: $CE_{jt} = a_0 + a_1 CE_{jt-1} + a_2 ATO_{jt} + a_3 ACCRUALS_{jt-1} + a_4 \triangle SALES_{jt} + a_5 NEG\_\triangle SALES_{jt} + a_6 UROA_{jt} + a_7 UROA_{jt-1} + \varepsilon_{jt};$
TNOE	Transitory non-operating expenses divided by total sales, calculated as (non-operating expenses – interest expenses – losses from equity method)/total sales;
ATO	Asset turnover ratio, defined as total sales/[(NOA$_t$+NOA$_{t-1}$)/2], where NOA or net operating assets, is equal to the difference between operating assets and operating liabilities. Operating assets are calculated as total assets less cash and short-term investments. Operating liabilities are calculated as total liabilities less total debt. Average NOA is required to be positive;
ACCRUALS	Accruals, calculated as (net income – cash from operations)/sales;
△SALES	Percentage change in sales, calculated as (sales$_t$–sales$_{t-1}$)/sales$_{t-1}$;
NEG_△SALES	Percentage change in sales (*△SALES*) if *△SALES* is less than zero, and zero otherwise;
UROA	ROA minus the industry-year median ROA, where ROA is calculated as net income divided by total assets;
BF	Indicator variable that equals one if any individual controlling shareholder of the firm should pay gift taxes on RPS after 2012, and zero otherwise. It can be determined whether 1) ratio of RPS over total sales exceeds 30%, and 2) the percentage of shares owned by any individual controlling shareholder is above 3%;
POST	Indicator variable that equals one if the firm-year falls in or after 2012;
LISTED	Indicator variable that equals one if the firm is listed in the capital stock market, and zero otherwise;
DPUB	Indicator variable that equals one if the firm finances in the public debt market, and zero otherwise.

Table 2 Sample Distribution

Year	Total Sample			Beneficiary Firms			B/A
	Total (A)	Listed Firms	Unlisted Firms	Sub Total (B)	Listed Firms	Unlisted Firms	
2010	368	123	245	60	13	47	16.30%
2011	368	123	245	60	13	47	16.30%
2012	361	121	240	53	11	42	14.68%
2013	363	121	242	55	11	44	15.15%
Total	1,460	488	972	228	48	180	15.62%

Table 2 reports distribution of the sample to test my hypotheses. Total sample consists of 1,460 firm-years that belong to business group under the Monopoly Regulation and Fair Trade Act in the years of 2012 and 2013. Among these, 228 firm-years are classified as beneficiary firms whose individual controlling shareholders are expected to pay gift taxes on RPS after 2012.

Table 3 Descriptive Statistics (N=1,460)

Variables	Mean	SD	Q1	Median	Q3
CE	0.105	0.204	0.017	0.056	0.135
CELAG	0.103	0.197	0.020	0.059	0.138
ATO	2.614	3.479	0.679	1.505	3.130
ACCRUALSLAG	−0.017	0.415	−0.088	−0.021	0.026
△SALES	0.168	0.532	−0.026	0.085	0.215
NEG_△SALES	−0.049	0.127	−0.026	0.000	0.000
UROA	−0.001	0.079	−0.024	0.001	0.031
UROALAG	0.005	0.076	−0.020	0.003	0.037
UCE	0.006	0.130	−0.020	0.000	0.021
TNOE	0.041	0.117	0.004	0.012	0.032
BF	0.156	0.363	0.000	0.000	0.000
POST	0.496	0.500	0.000	0.000	1.000
LISTED	0.334	0.472	0.000	0.000	1.000
DPUB	0.353	0.478	0.000	0.000	1.000

Table 3 reports descriptive statistics for the regression variables used in the hypotheses tests. All variables are winsorized at 1st and 99th percentile. For the definitions of variables, refer to Table 1.

Table 4 Pearson Correlation Matrix (N=1,460)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CE	1.00											
(2) CELAG	0.78***											
(3) ATO	−0.20***	−0.20***										
(4)ACCRUALS−LAG	0.10***	0.18***	0.01									
(5) △SALES	0.06**	−0.14***	0.04	−0.09***								
(6) NEG_−△SALES	−0.03	−0.12***	0.15***	−0.03	0.40***							
(7) UROA	0.36***	0.25***	0.09***	0.12***	0.06**	0.09***						
(8) UROALAG	0.26***	0.36***	0.06**	0.37***	−0.09***	0.00	0.50***					
(9) UCE	0.24***	−0.01	−0.04	−0.02	−0.08***	−0.16***	−0.09***	0.00				
(10) TNOE	−0.09***	−0.07**	−0.15***	0.10***	−0.07**	−0.14***	−0.26***	−0.09***	0.00			
(11) BF	−0.11***	−0.10***	0.11***	−0.02	0.01	−0.01	−0.04	−0.03	0.04	0.07**		
(12) POST	0.00	0.03	−0.03	−0.01	−0.19***	−0.07**	−0.03	−0.02	−0.01	0.06**	−0.02	
(13) LISTED	0.04	0.05*	−0.15***	0.04*	−0.09***	−0.02	0.04	0.04	0.02	0.03	−0.11***	0.00
(14) DPUB	−0.01	0.00	−0.16***	−0.01	−0.05*	0.02	−0.06**	−0.07**	0.04	0.02	−0.13***	−0.02

Table 4 reports pearson correlation matrix for the regression variables used in the hypotheses tests. For the definitions of variables, refer to Table 1. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 5 Univariate Tests between Beneficiary and Non-beneficiary Firms

Variables	Beneficiary Firms (N = 228)		Non-beneficiary Firms (N = 1,232)		Difference (A)−(B)	T-Statistics
	Mean (A)	STD	Mean (B)	STD		
CE	0.054	0.146	0.114	0.212	−0.060	−4.10***
CELAG	0.055	0.137	0.112	0.205	−0.057	−4.03***
ATO	3.484	4.570	2.452	3.213	1.031	4.13***
ACCRUALS−LAG	−0.034	0.520	−0.014	0.393	−0.021	−0.69
△SALES	0.181	0.435	0.166	0.548	0.015	0.40
NEG_−△SALES	−0.052	0.129	−0.048	0.127	−0.003	−0.37
UROA	−0.008	0.089	0.000	0.077	−0.008	−1.38
UROALAG	0.000	0.080	0.005	0.075	−0.006	−1.07
UCE	0.018	0.150	0.003	0.126	0.014	1.52
TNOE	0.061	0.168	0.038	0.104	0.024	2.81***
POST	0.474	0.500	0.500	0.500	−0.026	−0.73
SIZE	25.778	1.571	26.470	1.510	−0.692	−6.32***
LISTED	0.211	0.409	0.357	0.479	−0.147	−4.34***
DPUB	0.206	0.405	0.380	0.486	−0.174	−5.08***
Big4	0.825	0.381	0.881	0.323	−0.057	−2.37**
AGE	2.857	0.634	3.000	0.698	−0.143	−2.81***
TOP10	0.561	0.497	0.429	0.495	0.133	3.72***
MANUFAC−TURE	0.268	0.444	0.370	0.483	−0.102	2.98***
SERVICE	0.592	0.493	0.347	0.476	0.245	7.09***

Table 5 reports the univariate test results between beneficiary and non-beneficiary firms for the variables used in the hypotheses tests. For the definitions of variables, refer to Table 1. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 6 Regression of Unexpected Core Earnings on Transitory Non-Operating Expenses as a Percentage of Sales Using Alternative Measures of Expected Core Earnings

Variables	Dependent Variable = UCE = CE − E(CE)			
	E(CE)=0	E(CE) =f(CE_lag1)	E(CE) =f(McVay model)	E(CE) =f(full model)
	(1)	(2)	(3)	(4)
TNOE	−0.1523*	−0.0947	−0.0286	0.0009
	(−1.91)	(−1.31)	(−0.53)	(0.02)
Intercept	0.1109***	0.0184***	0.0043	0.0055*
	(11.53)	(4.20)	(1.26)	(1.75)
Observations	1,460	1,460	1,460	1,460
Adjusted R^2	0.0069	0.0039	0.0001	0.0007

Table 6 reports the association between unexpected core earnings and transitory non-operating expenses (similar to Table 4 of Fan et al. (2010)). As dependent variables, unexpected core earnings, I use four different measures in Columns (1)-(4), respectively, in order to examine how the association differs according to the extent that firm performance effects are controlled. For example, in Column (1), unexpected core earnings are defined as core earnings while they are defined as core earnings minus expected core earnings in Columns (2)-(4). In Columns (2)-(4), expected core earnings are calculated using the coefficients from the models shown below, respectively, estimated for each industry-year:

Eq. (5): $CE_{jt} = a_0 + a_1CE_{jt-1} + \varepsilon_{jt}$,

Eq. (6): $CE_{jt} = a_0 + a_1CE_{jt-1} + a_2ATO_{jt} + a_3ACCRUALS_{jt-1} + a_4\triangle SALES_{jt}$
$+ a_5NEG\_\triangle SALES_{jt} + \varepsilon_{jt}$.

Eq. (1): $CE_{jt} = a_0 + a_1CE_{jt-1} + a_2ATO_{jt} + a_3ACCRUALS_{jt-1} + a_4\triangle SALES_{jt}$
$+ a_5NEG\_\triangle SALES_{jt} + a_6UROA_{jt} + a_7UROA_{jt-1} + \varepsilon_{jt}$.

where the definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 7 The Change in Classification Shifting Behavior to Counter the Enforcement of Gift Taxes on the Benefits Tunneled through Abnormal RPS: Hypothesis 1

Variables	Dependent Variable = UCE	
	E(CE) = f(full model)	E(CE) = f(McVay model)
	(1)	(2)
BF	−0.0210*	−0.0192
	(−1.95)	(−1.35)
NBF	0.0083	0.0111*
	(1.48)	(1.91)
$TNOE*BF$	0.7608***	0.3158***
	(7.50)	(3.04)
$TNOE*NBF$	−0.0891	−0.1269**
	(−1.16)	(−1.99)
$BF*POST$	0.0341*	0.0108
	(1.75)	(0.52)
$NBF*POST$	−0.0031	−0.0081
	(−0.37)	(−0.99)
$TNOE*BF*POST$ (A)	−0.7747***	−0.2839**
	(−8.63)	(−2.34)
$TNOE*NBF*POST$ (B)	−0.0052	0.0559
	(−0.06)	(0.72)
F−Test for A < B (H1)	39.75	5.56
(p−value)	0.0000	0.0185
Observations	1,460	1,460
Adjusted R^2	0.0409	0.0068

Table 7 reports the change in classification shifting behavior after the enforcement of gift taxes on RPS. It presents the regression results of Eq. (3):

Eq. (3): $UCE_{jt} = \beta_1 BF_{jt} + \beta_2 NBF_{jt} + \beta_3 TNOE_{jt}*BF_{jt} + \beta_4 TNOE_{jt}*NBF_{jt} + \beta_5 BF*POST_{jt} + \beta_6 NBF*POST_{jt} + \beta_7 TNOE_{jt}*BF_{jt}*POST_{jt} + \beta_8 TNOE_{jt}*NBF_{jt}*POST_{jt} + \varepsilon_{jt,}$

where the definitions of variables are defined as Table 1. As a dependent variable, UCE, I use the error term from the full model (Eq. (1)) and the McVay's (2006) model excluding current−year accruals (Eq. (6)), in Columns (1) and (2), respectively. In all analyses, I correct for heteroskedasticity following White (1980), and report t−statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two−tailed tests.

Table 8 The Effect of Public Financing on the Change in Classification Shifting Behavior: Hypothesis 2

Panel A: The effect of public equity financing

Variables	Dependent Variable = UCE			
	Listed Firms		Unlisted Firms	
	E(CE) = f(full model)	E(CE) = f(McVay model)	E(CE) = f(full model)	E(CE) = f(McVay model)
	(1)	(2)	(3)	(4)
BF	−0.0390	−0.0266	−0.0063	−0.0106
	(−1.50)	(−1.26)	(−0.56)	(−0.66)
NBF	0.0144	0.0080	0.0012	0.0068
	(1.32)	(0.57)	(0.18)	(0.97)
TNOE*BF	0.1820	0.1347	0.7856***	0.3225***
	(1.04)	(1.11)	(7.51)	(3.03)
TNOE*NBF	0.1908	0.2909	−0.1884***	−0.2638***
	(1.08)	(0.90)	(−3.88)	(−3.63)
BF*POST	0.0735*	0.0181	0.0114	0.0009
	(1.73)	(0.68)	(0.54)	(0.04)
NBF*POST	−0.0221	−0.0215	0.0087	0.0010
	(−1.43)	(−1.29)	(0.90)	(0.10)
TNOE*BF*POST (A)	−0.0615	0.0049	−0.8156***	−0.3052**
	(−0.35)	(0.04)	(−11.03)	(−2.44)
TNOE*NBF*POST (B)	−0.1407	−0.1079	0.0549	0.1216
	(−0.65)	(−0.33)	(0.74)	(1.37)
F-Test for A < B (H2)	0.08	0.10	69.23	7.74
(p-value)	0.7773	0.7488	0.0000	0.0055
Observations	488	488	972	972
Adjusted R^2	0.0097	0.0147	0.0681	0.0239

Panel B: The effect of public debt financing

Variables	Dependent Variable = UCE			
	Unlisted firms with public debt		Unlisted firms without public debt	
	E(CE) = f(full model)	E(CE) = f(McVay model)	E(CE) = f(full model)	E(CE) = f(McVay model)
	(1)	(2)	(3)	(4)
BF	−0.0263*	−0.0262*	−0.0012	−0.0064
	(−1.77)	(−1.79)	(−0.09)	(−0.36)
NBF	0.0056	0.0129	−0.0016	0.0039
	(0.67)	(1.20)	(−0.20)	(0.49)
$TNOE*BF$	0.8919***	0.6533***	0.7535***	0.2018
	(7.56)	(6.17)	(6.37)	(1.60)
$TNOE*NBF$	0.0935	−0.0238	−0.2181***	−0.2895***
	(0.97)	(−0.43)	(−4.50)	(−3.75)
$BF*POST$	0.1098	0.1033	−0.0101	−0.0195
	(1.44)	(1.28)	(−0.49)	(−0.76)
$NBF*POST$	−0.0092	−0.0266	0.0145	0.0061
	(−0.67)	(−1.62)	(1.26)	(0.55)
$TNOE*BF*POST$ (A)	−0.1719	0.2675	−0.8282***	−0.2390*
	(−0.96)	(1.43)	(−10.30)	(−1.66)
$TNOE*NBF*POST$ (B)	−0.2256	0.3128	0.0831	0.1435
	(−0.68)	(0.81)	(1.07)	(1.54)
F−Test for A < B (H2)	0.02	0.01	66.47	4.98
(p−value)	0.8868	0.9164	0.0000	0.0259
Observations	177	177	795	795
Adjusted R^2	0.2175	0.1790	0.0614	0.0244

Table 8 presents whether the change in classification shifting behavior is influenced by whether the firm finances in the public market. While Panel A covers the effect of public equity financing, Panel B is about the effect of public debt financing for the unlisted firm sample. For the test, Eq. (3) is used as follows:

$$Eq. (3): UCE_{jt} = \beta_1 BF_{jt} + \beta_2 NBF_{jt} + \beta_3 TNOE_{jt}*BF_{jt} + \beta_4 TNOE_{jt}*NBF_{jt}$$
$$+ \beta_5 BF*POST_{jt} + \beta_6 NBF*POST_{jt} + \beta_7 TNOE_{jt}*BF_{jt}*POST_{jt}$$
$$+ \beta_8 TNOE_{jt}*NBF_{jt}*POST_{jt} + \varepsilon_{jt},$$

where the definitions of variables are defined as Table 1. In all analyses, I correct for heteroskedasticity following White (1980), and report t−statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two−tailed tests.

Table 9 The Effect of Individual Controlling-shareholder Ownership on the Change in Classification Shifting Behavior: Hypothesis 3

Variables	Dependent Variable = UCE			
	The above 25% ownership		The above 10% ownership	
	E(CE) = f(full model)	E(CE) =f(McVay model)	E(CE) = f(full model)	E(CE) =f(McVay model)
	(1)	(2)	(3)	(4)
HSHARE	0.0147	−0.0234	−0.0391	0.0064
	(0.48)	(−0.48)	(−0.80)	(0.13)
LSHARE	−0.0110	0.0116	−0.0082	−0.0059
	(−1.28)	(0.73)	(−0.83)	(−0.35)
TNOE* HSHARE	0.8050***	0.5053***	0.8223***	0.4102**
	(7.45)	(4.67)	(8.18)	(2.39)
TNOE* LSHARE	0.4146	−0.6610	0.7301***	0.1557
	(1.50)	(−1.11)	(3.89)	(0.79)
HSHARE *POST	0.0278	0.0661	0.0510	−0.0310
	(0.55)	(0.72)	(0.69)	(−0.41)
LSHARE *POST	0.0246	−0.0336	0.0238	−0.0008
	(1.53)	(−1.39)	(1.33)	(−0.03)
TNOE*HSHARE*POST (A)	−0.8632***	−0.5600***	−0.9304***	−0.4503**
	(−8.46)	(−3.44)	(−7.37)	(−2.16)
TNOE*LSHARE*POST (B)	−0.3735	0.7317	−0.5824***	0.0230
	(−1.33)	(1.21)	(−3.81)	(0.10)
F−Test for A < B (H3)	2.67	4.25	3.08	2.35
(p−value)	0.1076	0.0436	0.0844	0.127
Observations	228	228	228	228
Adjusted R^2	0.1771	0.0671	0.1871	0.0176

Table 9 presents whether individual controlling ownership influences the change in classification shifting behavior after the enforcement of gift taxes on RPS. For the test, Eq. (4) is used for the beneficiary firm sample as follows:

$$UCE_{jt} = \beta_1 HSHARE_{jt} + \beta_2 LSHARE_{jt} + \beta_3 TNOE_{jt}*HSHARE_{jt}$$
$$+ \beta_4 TNOE_{jt}*LSHARE_{jt} + \beta_5 HSHARE*POST_{jt} + \beta_6 LSHARE*POST_{jt}$$
$$+ \beta_7 TNOE_{jt}*HSHARE_{jt}*POST_{jt} + \beta_8 TNOE_{jt}*LSHARE_{jt}*POST_{jt} + \varepsilon_{jt},$$

Eq. (4):

where the definitions of variables are defined as Table 1. *HSHARE* (*LSHARE*) is an indicator that equals one when the sum of percentages of individual controlling shareholder ownership is the above 25% (the below 75%) in the beneficiary sample Columns (1) and (2), and the above 10% (the below 90%) in Columns (3) and (4),

respectively. In all analyses, I correct for heteroskedasticity following White (1980), and report t-statistics based on standard errors clustered by firm in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests.

Table 10 Sensitivity Tests and Additional Analyses

Panel A: Controlling for the Effect of the Change in Accounting Standards

Variables	Dependent Variable = *UCE*		
	Sample excluding the year of 2013	*K–IFRS adopters*	*K–GAAP users*
	(1)	(2)	(3)
BF	−0.0210*	−0.0091	−0.0323
	(−1.95)	(−0.64)	(−1.56)
NBF	0.0083	0.0039	0.0157
	(1.48)	(0.67)	(1.07)
TNOE∗BF	0.7608***	0.5190*	0.8057***
	(7.49)	(1.88)	(7.36)
TNOE∗NBF	−0.0891	0.0183	−0.1912***
	(−1.16)	(0.15)	(−3.83)
BF∗POST	0.0245	0.0023	0.0709*
	(1.13)	(0.14)	(1.88)
NBF∗POST	0.0063	−0.0016	−0.0025
	(0.58)	(−0.17)	(−0.13)
TNOE∗BF∗POST (A)	−0.7783***	−0.3663	−0.8817***
	(−5.93)	(−1.33)	(−10.90)
TNOE∗NBF∗POST (B)	−0.0546	−0.0851	0.0551
	(−0.47)	(−0.60)	(0.82)
F–Test for A < B (H1)	39.75	0.82	79.69
(p–value)	(0.0000)	(0.3657)	(0.0000)
Observations	1,097	1,097	363
Adjusted R^2	0.0455	0.0011	0.1006

Panel B: Sensitivity Tests for Financial Reporting Costs

Variables	Dependent Variable = *UCE*			
	Leverage		*Altman's Z-score*	
	Highest 25%	Lowest 75%	Lowest 25%	Highest 75%
	(1)	(2)	(3)	(4)
BF	−0.0193	−0.0287**	−0.0026	−0.0272
	(−1.02)	(−2.02)	(−0.11)	(−1.45)
NBF	0.0237*	0.0030	0.0011	0.0122*
	(1.79)	(0.49)	(0.06)	(1.80)
TNOE∗BF	0.8844***	0.6882***	−3.0706*	0.7624***
	(4.98)	(11.43)	(−1.90)	(9.59)
TNOE∗NBF	0.0294	−0.1042	−0.9324**	−0.0441
	(0.35)	(−1.29)	(−2.06)	(−0.32)
BF∗POST	0.0218	0.0259	0.0183	0.0258
	(0.92)	(1.11)	(0.76)	(0.97)
NBF∗POST	−0.0101	−0.0001	0.0055	−0.0147**
	(−0.79)	(−0.01)	(0.25)	(−2.04)
TNOE∗BF∗POST (A)	−0.3048	−0.7873***	3.0117*	−0.7277***
	(−1.34)	(−6.65)	(1.86)	(−9.09)
TNOE∗NBF∗POST (B)	−0.1883*	0.0193	0.9293**	−0.0258
	(−1.90)	(0.22)	(2.35)	(−0.16)
F-Test for A < B (H1)	0.22	29.97	1.58	17.45
(p-value)	(0.6399)	(0.000)	(0.2136)	(0.0001)
Observations	379	1,081	379	1,081
Adjusted R^2	0.1062	0.0299	0.0176	0.0573

Panel C: Trade-off between RPS-reducing Decisions and Operating-income Management Using CS

Variables	Dependent Variable = *UCE*			
	Sign of Abnormal RPS		*More than 1%p reduction in RPS*	
	Positive	Negative	Yes	No
	(1)	(2)	(3)	(4)
BF	0.0221	−0.0389**	−0.0030	−0.0164
	(1.10)	(−2.19)	(−0.09)	(−1.31)
NBF	−0.0044	0.0078	0.0074	0.0055
	(−0.53)	(0.95)	(0.69)	(1.08)
*TNOE*BF*	0.5512	0.8098***	0.0767	0.7805***
	(1.31)	(10.10)	(0.45)	(10.22)
*TNOE*NBF*	0.4165	−0.1127	0.1210	−0.0994
	(1.30)	(−1.57)	(0.49)	(−1.26)
*BF*POST*	−0.0194	0.0636*	0.0178	0.0225
	(−0.87)	(1.90)	(0.54)	(1.02)
*NBF*POST*	0.0082	−0.0050	−0.0085	−0.0003
	(0.67)	(−0.44)	(−0.73)	(−0.04)
*TNOE*BF*POST* (A)	−0.4019	−0.8709***	−0.2611*	−0.6457***
	(−0.98)	(−8.86)	(−1.89)	(−7.90)
*TNOE*NBF*POST* (B)	−0.4297	0.0470	−0.1357	0.0447
	(−1.16)	(0.83)	(−0.55)	(0.52)
F-Test for A < B (H1)	0.00	70.68	0.19	33.23
(p-value)	(0.9589)	(0.0000)	(0.6616)	(0.000)
Observations	568	867	373	1,062
Adjusted R^2	0.0066	0.0615	−0.0037	0.0535

국문초록

일감몰아주기 증여세 과세 도입에 대응한 기업의 전략에 대한 연구

본 학위논문은 일감몰아주기 증여세 과세 도입에 대응한 기업의 전략을 살펴보는 두 편의 논문으로 구성되어 있다. 관계회사에게 일감을 몰아주는 경우 그 수혜기업의 주주는 2012년부터 증여세를 납부해야 한다. 이러한 증여세는 관계회사간 과도한 매출·매입거래가 지배주주의 부의 증식수단으로 이용되는 것을 막아 부의 불평등 문제를 해소하고 공정거래를 촉진한다는 측면에서 도입되었다. 그러나 수혜기업들은 지배주주의 조세부담을 낮출 목적으로 조세전략을 취할 가능성이 있으므로 본 학위논문에서는 이를 살펴보았다

첫 번째 논문에서는 일감몰아주기 증여세 과세 도입에 대응하여 수혜기업 중 어떠한 기업들이 관계회사 매출비중을 줄이는 의사결정을 했는지 살펴보았다. 관계회사간 거래 목적에 대해 선행연구에서는 크게 두 가지 상충된 견해를 제시하고 있다. 구체적으로, 효율성 추구 관점에서는 관계회사간 거래가 거래비용을 줄일 의도로 이루어지고 있다고 주장하고 있는 반면, 터널링 관점에서는 기업집단이 그 부를 지배주주에게 이전하는 수단으로 관계회사간 거래를 이용하고 있다고 주장하고 있다. 일감몰아주기에 대한 증여세 과세는 후자의 터널링 관점에서 도입되었으며, 해당 증여세는 관계회사 매출비중이 커질수록 증가한다. 이에 따라 수혜기업은 지배주주의 증여세를 줄여줄 목적으로 관계회사 매출비중을 줄일 유인이 있을 수 있다. 그러나 이러한 조세유인은 관계회사간 거래를 통해 효율성을 추구하려는 유인과 상충한다. 2010년부터 2013년까지 1,456개의 재벌기업-연을 대상으로 분석한 결과, 수혜기업들은 비수혜기업과 비교하여 2012년 이후 관계회사 매출비중을 줄이는 것으로 나타났다. 그런데 이러한 현상은 Jian and Wong(2010)의 방법을 적용하여 계

산한 비정상적 관계회사 매출비중에서만 확인되었으며, 정상적 관계회사 매출비중에서는 두 그룹간 통계적으로 유의한 변동의 차이가 발견되지 않았다. 더 나아가, 수혜기업들은 경쟁시장에 있을수록, 또는 그 지배주주의 지분율이 높을수록 관계회사 매출비중을 줄이는 것으로 나타났다. 이러한 분석결과는 수혜기업들이 일감몰아주기 증여세 과세 도입에 대응하여 관계회사 매출비중을 줄이는 의사결정을 할 때 조세비용과 비조세비용을 모두 고려하고 있음을 시사한다.

두 번째 논문에서는 일감몰아주기 증여세 과세 도입에 대응하여 수혜기업들이 영업이익을 조정하는지, 특히 그 수단으로 손익계산서상 분류조정을 활용했는지 살펴보았다. 경영자는 영업이익을 높일 의도로 영업비용을 영업외비용으로 전환하는 경향이 있는 것으로 알려져 있다. 그런데 수혜기업의 경우 그 지배주주는 과도한 관계회사 매출거래로 인해 증가한 영업이익에 대해 증여세를 납부해야 하므로, 영업이익을 하향 조정하려는 유인이 있을 수 있다. 특히, 손익계산서상 분류조정을 이용할 경우 보고이익에는 변동없이 영업이익을 줄이는 것이 가능하다. 그런데 이러한 조세유인은 영업이익을 높이려는 재무보고 유인과 상충한다. 2010년부터 2013년까지 1,460개의 재벌기업-연을 대상으로 분석한 결과, 수혜기업들은 비수혜기업과 비교하여 영업이익을 높이는 분류조정을 덜 하는 것으로 나타났다. 특히, 이러한 현상은 수혜기업이 공개시장에서 자금을 조달하지 않거나, 지배주주 지분율이 높을수록 더욱 두드러지게 나타났다. 이러한 분석결과는 수혜기업이 일감몰아주기 증여세 과세 도입에 대응하여 손익계산서상 분류조정 이용하고 있으며, 이 때 관련 조세비용 뿐만 아니라, 재무보고비용 역시 고려하고 있음을 시사한다.

주요어: 특수관계자 매출, 터널링, 증여세, 거래비용, 손익계산서, 분류조정, 영업이익

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