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Implications of Special Items for Future Earnings

*by Seung-Yeon Lim**

This study examines the implications of special items (SI) for future earnings using quarterly Korean data over the period from 2011 to 2014. Due to the lack of identification of SI in Korea, I choose several items as special items if they are material and non-recurring items following prior studies. Then I regressed seasonally-differenced future earnings on positive and negative SI and found that their effects on future earnings were different. While negative SI are explained by inter-period expense transfer, positive SI are not well-described by traditional prototypes. Next, I regressed seasonally-differenced future earnings on negative SI sub-types as they are heterogeneous in nature and have differing implications for future earnings. While PPE impairments and intangibles impairments are partly explained by the inter-period expense transfer, unspecified loss of other loss items are not. Interestingly, these effects are attenuated or disappear in the Kosdaq market when the markets are divided into the Kospi and Kosdaq markets.

Keywords *: Special Items, Inter-Period Expense Transfer, Transitory Item, Future Earnings*

Ⅰ. Introduction

The term special items (SI) has been used in academic literature to refer to a broad range of non-recurring economic phenomena. The Compust at specifically identifies non-recurring items from the income statement and its footnotes and provides a manual on SI, which are determined by Compustat's own definition. SI identified by Compust at comprise non-recurring items, such as any significant non-recurring items, natural disaster losses, impairment of goodwill, restructuring charges, non-recurring profit or loss on the sale of assets, and write-downs or write-offs of receivables and intangibles. Furthermore, *Accounting Principles Board 30-Reporting the Results of Operations* defines SI as charges that are infrequent or unusual in nature. While existing research has examined issues regarding SI, such as market reactions at the release of SI or earnings management using SI in the US, no research has been conducted within the Korean context on SI due to a lack of identi-

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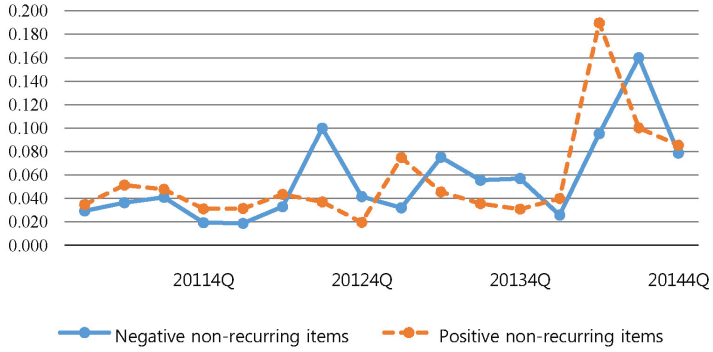
fication of SI. Since 2011, it is obligatory for all companies listed on the Korean Stock Exchange (KSE) to comply with the Korean version of International Financial Reporting Standards (K-IFRS). The K-IFRS prohibits the presentation of any extraordinary item in the statement of comprehensive income because an item that occurs irregularly or infrequently would be a result of normal business operations and, hence, there is no need to separately report them as "extraordinary" or "non-recurring" items.

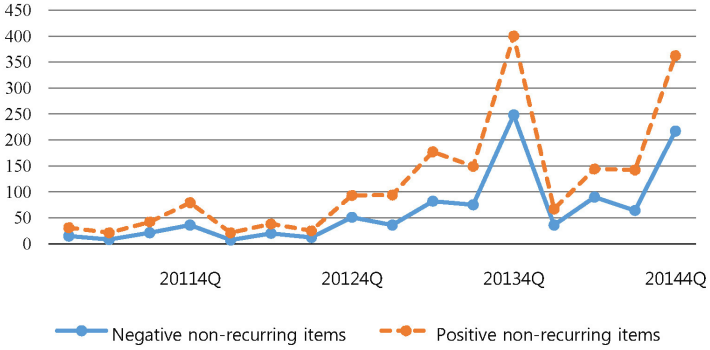
After adopting K-IFRS, however, I still need to understand the implication of earnings components (material and non-recurring items) for future earnings because the material and non-recurring items are commonly viewed as transitory in contrast to the persistent properties of aggregate earnings. Fairfield, Sweeney, and Yohn (1996) suggest that the disaggregation of earnings into core and special (non-recurring) ones helps in improving the predictive content of reported earnings. Burgstahler, Jiambalvo, and Shevlin (2002) also argue that prices reflect relatively more of the effects of SI compared to other earning components. Riedl and Srinivasan (2010) provide evidence that a disaggregation of earnings components with differing implications for firm performance improves the information set about the firms. Furthermore, they show that SI have been increasing in magnitude and frequency over time. Figure 1 shows that the material and non-recurring items that are SI, which were newly identified in this paper, have also been increasing in magnitude and frequency. I use the terms SI, material non-recurring items, and material

Figure 1
Magnitude and Frequency of Non-Recurring Items: 20111Q ~ 20144Q

Panel A: Magnitude of material non-recurring items



Panel B: Frequency of material non-recurring items



extraordinary items interchangeably.

In light of findings from previous studies documenting that SI are different from aggregate earnings and the separate presentation of them improve the prediction of future earnings, a natural question arises: why does K-IFRS prohibit the presentation of any extraordinary items in the statement of comprehensive income? While the material and non-recurring items may reflect firm performance, they can be exploited by an opportunistic motivation. Cready, Lopez, and Sisneros (2012) maintain that earnings management in the form of an inter-period (expense) transfer is the primary motivating factor for managers in recognizing negative SI. In other words, the inter-period transfer of expense is assumed to be a device for earnings management through expediting the recognition of future expenses into current ones and also increasing future earnings.

I address three aspects to further our understanding of SI implications for future earnings because SI are still economically significant earnings components whose nature should be well understood by investors in the market. First, I selected several candidates for SI from the earnings components. While candidates for negative SI include long-lived asset impairments, goodwill impairments, and restructuring charges, which are widely examined in prior literature, the candidates for positive SI are unclear. Given the data availability, this paper classifies the sum of property, plant, and equipment (PPE) impairments, intangible impairments, and unspecified loss of other loss as negative SI and unspecified income of other income as positive SI (Francis, Hanna, and Vincent, 1996; Riedl and Srinivasan, 2010; Cready et al., 2012) if their seasonally-differenced amounts divided by market value at t-4 are greater than 1 percent (Burgstahler et al., 2002). Since there is no identification of SI in Korea, I try to identify material and non-recurring items as SI following prior literature. Francis et al. (1996) examined the management discretion about amount and timing of asset write-offs. Riedl and Srinivasan (2010) presented that assets write-offs were 6.5 percent and other SI sub-types were 5.3 percent of total assets among SI. Cready et al. (2012) analyzed three negative SI: restructuring charges, PPE impairments, and goodwill impairments. I assumed that ifseasonally-differenced amounts of candidate items used in prior literature, such as PPE impairments, are divided by market value at t-4 are greater than 1 percent, the items will then be classified as material items. Burgstahler et al. (2002) focused on material SI whose amounts divided by market value at t-4 are greater than 1 percent. Riedl and Srinivasan (2010) stated that restructuring charges, assets write-offs, and other SI sub-types are main components of SI. Furthermore, I expect unspecified losses or income to include unspecified items that are non-recurring in nature. Second, I examined the sub-types of negative SI because they have different implications for future earnings. If the PPE asset's recoverable costs are lower than the book value of a respective asset, an asset impairment occurs. The PPE impairment transfers future depreciation expense into the current period expense as a special item. Intangible impairments have different properties by themselves. While some intangibles have a definite useful life and are amortized over this period, other intangibles, including goodwill, have an indefinite useful life and are therefore not amortized. Cready et al. (2010) confirmed that goodwill impairment is merely a write-off of goodwill and has little relation to future earnings. Unspecified loss of other loss items includes non-recurring expenses such as unexpected legal fees. They tend to be transitory and are not related to the transfer of future expenses into current ones.

Finally, I divided the market into Kospi and Kosdaq markets. Kospi is a representative market in Korea since 1983 and Kosdaq is a stock market comprising small and medium sized businesses and start-up companies operating since 1996. Although the Kosdaq market was modelled after the Nasdaq in the US, it has failed to add innovative technology firms to the bourse.

While a difference between Nasdaq and NYSE in the US is the type of industries or businesses of the listed companies, Kospi and Kosdaq are different in size of the firms. Prior literature indicates that the information asymmetry is higher in Kosdaq firms because they are small in size than Kospi firms (Lee, 2013). Furthermore, earnings management and opportunistic behaviors are more prevalent in the Kosdaq than in Kospi markets (Yoon, 2005; Baik, Kim, Kim, and Shim, 2011; Jung and Choi, 2013; Park, 2015). In this regard, the study in question determines whether the implications of SI for future earnings are different between respective firms in the Kospi and Kosdaq markets.

I conducted two sets of analyses examining the implication of SI on future earnings using data spanning the period from 2011 to 2014 for a sample of non-financial public firms in Korea: I examined the effect of SI on future earnings by regressing seasonally adjusted future earnings on positive and negative SI. As a result, I found that the effects of positive and negative SI on future earnings are different. Negative SI are followed by earnings of the opposite sign in subsequent quarters, which represent the inter-period transfer prototype. However, positive SI are not transitory and do not represent an inter-period transfer. In the context of market division assumption, negative SI of Kospi firms reflect the inter-period transfer prototype more explicitly than Kosdaq firms.

Next, I examined the effects of three negative SI sub-types (PPE impairments, intangible impairments, and unspecified loss of other loss) on future earnings. From the analyses on the implication of three negative SI sub-types for future earnings, I found that while the PPE impairments and the impairment of intangibles tend to reflect inter-period transfer prototype, unspecified loss of other loss (OSI) items do not. However, once the markets are divided into the Kospi and Kosdaq markets, I acquired varying results suggesting that any sub-types are not well-described by an inter-period transfer prototype. Only the impairments of intangibles represent the transitory prototype in the Kosdaq market. The impairments of intangibles not only include impairments of intangible assets but also impairment of goodwill. Whereas some intangible assets are amortizable, others, as well as goodwill, are not amortized due to the fact that their useful life is indefinite. Cready et al. (2012) show that while write-offs of depreciable PPE are well characterized by inter-period transfer prototype, the goodwill impairment only represents a transitory prototype. I conjecture that firms in the Kosdaq market may have more non-amortizable assets than those in the Kospi market.

This study contributes to the accounting literature in three primary ways. First, it sheds light on the importance of SI that are not defined under the K-IFRS. Even though the K-IFRS does not allow the separate presentation of SI in the financial statements, some examples of SI in Korea are economically significantones, whose separate reporting would help investors better understand significant implication of SI for future earnings. Second, the results support prior literature suggesting that SI are heterogeneous and hence have different implications for future earnings. Finally, I found that the unspecified loss of other loss items have some implications for future earnings even though they are not any one of four prototypes. The unspecified loss of other loss items should be detailed to provide investors with relevant information if they come under the material and non-recurring items' categories.

The rest of this study proceeds as follows. Section 2 summarizes prior literature and develops empirical prediction. Section 3 describes the empirical research models. Section 4 and 5 presents our sample and empirical results. Finally, Section 6 concludes the paper.

Ⅱ. Literature Review and Empirical Prediction

SI are referred to as non-recurring ones, and hence are commonly recognized as

transitory. Bradshaw and Sloan (2002) indicated a dramatic increase in the value relevance of street earnings that excluded SI from GAAP earnings while there was a decline in the value relevance of GAAP earnings (Collins, Maydew, and Weiss, 1997; Francis and Schipper, 1999; Bhattacharya, Black, Christensen, and Larson, 2003; Doyle, Lundholm, and Soliman, 2003; Lougee and Marquardt, 2004; Bhattacharya, Black, Christensen, and Mergenthaler, 2007). Street earnings are interchangeably used with pro forma earnings and core earnings. They suggested that markets reactdifferently to the street versus GAAP earnings due to transitory SI.

Furthermore, several papers examined if managers present SI with opportunistic motivations to bias investors' perceptions of a firm's economic performance versus informational motivations to help information users fully comprehend the economic significance of SI. While McVay (2006) arguedthat managers try to overstate core earnings by opportunistically reporting recurring core expenses as transitory SI, Riedl and Srinivasan (2010) provided evidence that the disaggregation of earnings elements with differing implications for a firm's performance improves the informational environment around the firms consistent with informational motivations. In Korean literature, Kim and Kim (2003) documented that the division of earnings into ordinary and extraordinary items is not an appropriate presentation of income statements since most non-operating gains and losses that are ordinary items are also non-recurring and transitory. The disaggregation, thus, may bias the investors' understanding the firm performance.

Recent studies examine the heterogeneous nature of SI and their effect on future earnings. Burgstahler et al. (2002) suggested that while positive SI are almost transitory, negative SI represent an inter-period transfer of future expenses into current ones. Inter-period transfer of expense is assumed to be a device for earnings management via recognition of future expenses into current ones and subsequently increasing future earnings. Furthermore, Burgstahler et al. (2002) documented that prices reflect relatively more of the effects of a component of earnings (SI) in comparison with other earnings components, even though the implications of SI are not fully impounded in prices. Cready et al. (2012) further developed Burgstahler et al.'s study and examined the negative special sub-items of asset write-down, goodwill impairment, and restructuring charges in detail. They demonstrated that the negative special sub-items, such as restructuring charges, contribute to future performance enhancements in addition to the inter-period expense transfer. The current study investigates if the candidates for SI, identified in this paper, have some implications for future earnings using Korean data. To interpret the acquired empirical results, one needs to first understand prototypical relations between SI and future earnings.

Burgstahler et al. (2002) described four prototypical relations between SI in current quarter t and expectations of seasonally-differenced earnings in subsequent quarters (quarter t+1 through quarter t+4), which was developed by Bernard and Thomas (1990). They assume that the effect of a $1.00 in earnings innovation in quarter t on the expected subsequent quarter earnings is the same as that of SI on the expected seasonally-differenced earnings for quarters t+1 through t+4. The first is a non-seasonal random work prototype representing a permanent effect, where the entire innovation carries over to all subsequent quarters. The second is a seasonal random work prototype representing a permanent effect where the entire innovation carries over to only the corresponding quarters of subsequent years. The third is a "transitory prototype" representinga temporary effect where the expected earnings for subsequent quarters are not affected by the entire innovation and therefore its effects on expectations of seasonally-differenced earnings in quarter t+1 through t+4 are 0.00, 0.00, 0.00, and -1.00, respectively. The fourth is the "inter-period transfer prototype," which serves as the real-

location of the effect of the innovation in quarter t among subsequent quarters. With the assumption that a $1.00 in earnings innovation in quarter t would have been reallocatedevenly over the next twenty quarters, its effects on expectations of seasonally-differenced earnings in quarter t+1 through t+4 are -0.05, -0.05, -0.05, and -1.05, respectively (Burgstahler et al., 2002, see Figure 1).

In their empirical results, Burgstahler et al. (2002) showed that the effect of positive SI on subsequent seasonally-differenced earnings is similar to the transitory prototype, similarly as the effect of negative SI on subsequent seasonally-differenced earnings is comparable to the inter-period transfer prototype. In the absence of explicit classification of SI under the K-IFRS, the current study identifies material and non-recurring items and assumes that they are similar to the SI under USGAAP. To satisfy the definition of SI, they should be non-recurring and material items. The current study regards the candidates as SI if their seasonally-differenced amounts divided by market value at t-4 are greater than 1 percent, as the seasonally-differenced amounts that are material in magnitude are assumed to be non-recurring. Further, this study attempts to find out which prototype best characterizes these items.

SI are quite heterogeneous, especially in negative SI. Francis et al. (1996) documented that the market reactions to SI rely on their nature by showing negative reactions to inventory write-offs and positive ones to restructuring charges. Riedl and Srinivasan (2010) detailed the types of SI. They reported that restructuring charges are, on average, 4.8 percent of total assets, while assets write-offs are 6.5 percent and other SI sub-types are 5.3 percent of total assets. They showed that restructuring charges, assets write-offs, and other SI sub-types are main items among the SI. Cready et al. argued that SIsub-types have different implications for future earnings. They extended Burgstahler et al.'s (2002) study and documented that the effect of SI sub-types on subsequent seasonally-differenced earnings is different in nature. While asset write-downs among negative SI are well described by the inter-period transfer prototype, goodwill impairments are best explained by the transitory prototype; furthermore, restructuring charges tend to reflect real future performance improvements, which is not limited to the four prototypical relations.

Under the K-IFRS, a restructuring charge is not shown on the statement of comprehensive income as an explicit expense. The current study chooses PPE impairments, intangible impairments, and unspecified loss of other loss as candidates for negative SI and unspecified gain of other gain as a candidate for positive SI (Riedl, 2004; Francis et al., 1996; Riedl and Srinivasan, 2010; Cready et al., 2012). I predict PPE impairments to reflect the inter-period transfer prototype as they are usually regarded as the acceleration of depreciation expense. Ido not expect either impairment of intangibles or unspecified loss of other loss (OSI) to reflect the inter-period transfer prototype as they consist of various items in nature.

Ⅲ. Research Design

The main research model in this study is a single-state cross-sectional regression to estimate the coefficients relating SI to subsequent seasonally-differenced future earnings. While Burgstahler et al. (2002) adjusted SI using the top statutory tax rates to link them to after-tax income, Cready et al. (2012) asserted that SI and pre-tax income are needed to examine the implications of SI for future earnings because the assumed tax rates for SI introduce a substantial bias into our coefficient estimates from Equation (1) this is consistent with Beaver, McNichols, and Nelson (2006) study.

Specifically, I estimate the following equation for k = 1, 2, 3, and 4:

$$(PTE_{t+k} - PTE_{t+k-4}) = b_{ak} + b_{1k}SI_t + b_{2k}(PTE_t - SI_t - PTE_{t-4}) + e_{tk} \quad (1)$$

where

PTE_{t+k} = pre-tax incomein quarter t+k (where k = 1, 2, 3, and 4) divided by the market value of equity (MV) in quarter t-4; and

SI_t = pre-tax SInewly identified in the paper in quarter t divided by the market value of equity (MV) in quarter t-4.

I focus on b_{1k}, the coefficient of SIt. Burgstahler et al. (2002) expected that the effect of SI on seasonally-differenced earnings in subsequent quarters should be accounted for to move the coefficient for lag 1, 2, and 3 toward 0 and the coefficient for lag 4 toward -1 if these SI are transitory in nature. Meanwhile, if SI represent an accelerated recognition of future expenses into current expenses, the coefficients at lags 1, 2, and 3 are significantly negative and the coefficient at lag 4 is significantly more negative than -1.

Further, the negative SI are to be disaggregated into sub-types that are expected to have differing implications for future earnings. To investigate the extent to which these negative special sub-types are related to future earnings, the following equation is estimated for k = 1, 2, 3, and 4:

$$(PTE_{t-k} - PTE_{t+k-4}) = b_{0k} + b_{11k}PSI_t + b_{12k}ISI_t + b_{13k}OSI_t + b_{2k}(PTE_t - SI_t - PTE_{t-4}) + e_{tk} \quad (2)$$

where

PTE_{t+k} and SI_t are as previously defined;

PSI_t = pre-tax property, plant, and equipment (PPE) impairments in quarter t divided by the market value of equity (MV) in quarter t-4;

ISI_t = pre-tax intangible impairments in quarter t divided by the market value of equity (MV) in quarter t-4; and

OSI_t = pre-tax unspecified loss of other loss in quarter t divided by the market value of equity (MV) in quarter t-4.

This study focuses on b_{11k}, b_{12k}, and b_{13k}, which are the coefficients of PSIt, ISIt, and OSIt, respectively. Cready et al. (2012) expect that PPE impairments are related to inter-period expense transfer, goodwill impairment to transitory nature, and restructuring charges to real improvements. Negative SIsub-types include PPE impairment, intangibles impairments, and unspecified loss of other loss after considering data availability. While it is predicted that the PPE impairments are related to the inter-period expense transfer, other two sub-types are empirical questions here.

IV. Sample and Descriptive Statistics

The sample includes firm-quarter observations of firms listed on the KSE (Korea Stock Exchange) and KOSDAQ (Korea Securities Dealers Automated Quotations) from the period from 2011 to 2014 drawn from the FnGuide. The analysis begins with 2011 because of the adoption of the K-IFRS.

Table 1, Panel A, reports that a total of 17,948 firm-quarter observations are available on FnGuide with non-missing pre-tax earnings (PTE) and SI over the period from 2011 to 2014. They are non-financial service firms with a December fiscal year-end. Positive SI are non-zero for 15,680 of these observations, while negative SI are non-zero for 2,026. In the US, the SI can be explicitly defined and extracted from the Compustat; however, this is not the case for Korea. Therefore, I assume that an unspecified income of other income would be a positive SI if its seasonally-differenced amount is in excess of 1 percent of market value. I include firm-quarter observations with non-missing market value of equity at quarter t-4 as pre-tax earnings and SI are scaled by the market value of equity at quarter t-4. For estimation purposes, I requiredpre-tax earnings in nine contiguous quarters surrounding quarter t (from the fourth quarter before quarter t to the fourth quarter after quarter t). Further, I eliminated observations

with extreme values of earnings where the absolute value of pre-tax earnings is greater than the market value of equity at quarter t-4. Finally, I restricted our sample to only include observations where SIare material in magnitude following Burgstahler et al. (2002). Burgstahler et al. (2002) restricted their sample into the observations which have SI with absolute value in excess of 1 percent of market value. That is, I assumed that if the seasonally-differenced amounts of SI (SI_t-SI_{t-4}) exceed the market value of equity at t-4, such SI are regarded as material ones in amount and are included in our sample. This eliminated 8,609 observations with positive SI and 34 observations with negative SI where SI take on non-zero but immaterial values. Such sample selection criteria reduced the sample to 867 having positive and material SI and 1,018 having negative and material SI.

Table 1, Panel B, shows the frequencies and mean values of material SI by quarter for the final sample of 10,659 observations. Material non-recurring SI occurred more frequently during quarters later in the fiscal year. I found that the positive and negative SI in the fourth quarter are 14.17 and 20.57 percent of all observations, respectively; this is greater than those in the interim quarters. However, the mean SI scaled by the market value at quarter t-4 are not larger in the fourth quarter relative to interim quarters. While the overall mean of positive SI is 0.062, the mean of positive SI in the fourth quarter is 0.050. Likewise, while the overall mean of negative SI is -0.064, the mean of negative SI in the fourth quarter is -0.055.

Table 1
Descriptive Statistics

Panel A: Sample Selection Criteria	Total	Positive SI Non-zero	Negative SI Non-zero
Quarterly observations of PTEt and SIt for sample period 2011～2014	17,948	15,680	2,026
1. Less: Market value unavailable for t-4	929		
	17,019	14,882	1,907
2. Less: One or more contiguous PTEt-4 to PTEt+4 missing	6,345		
	10,674	9,488	1,055
3. Less: Scaled absolute value of PTEt greater than 1	15		
	10,659	9,476	1,052
4. Non-zero but immaterial SI		8,609	34
Final sample	10,659	867	1,018

Panel B: Final Sample Observations and Mean Positive and Negative SI by Fiscal Year

	Total		Material SI > 0			Material SI < 0		
Quarter	N	Percent of All Qtrs	N	Percent of Row	Mean SI	N	Percent of Row	Mean SI
1	2,654	24.90	120	4.52	0.055	95	3.58	-0.028
2	2,656	24.92	180	6.78	0.089	199	7.49	-0.077
3	2,661	24.96	186	6.99	0.064	171	6.43	-0.096
4	2,688	25.22	381	14.17	0.050	553	20.57	-0.055
Total	10,659	100%	867	8.13%	0.062	1,018	9.55%	-0.064

Notes: PTE_t = pre-tax income for firms in quarter t divided by the market value of equity (MV) in quarter t-4
Positive SI = unclassified income of other income divided by the market value of equity (MV) in quarter t-4.
Negative SI = sum of unclassified loss of other loss, impairments of PPE, and impairments of intangibles divided by the market value of equity (MV) in quarter t-4.
Material SI = If absolute value of ΔSI divided by market value of equity in t-4 is greater than 1%, the SI is called material.

V. Results

I separately estimated Equation (1) for observations with positive and negative SI. In all regression estimations, the t-statistics relied on are based on robust-standard errors using one-way clustering by firm to control for time-series dependence and quarter-year dummy to control for cross-sectional dependence (Gow, Ormazabal, and Taylor, 2010). The results from the estimation of Equation (1) are reported in Table 2.

Table 2, Panel A, provides evidence on the implications of SI for future earnings and on differences between positive and negative SI. Regarding negative SI, the coefficients at lags 1, 2, and 3 are small and insignificant and the coefficient at lag 4 is -1.160 and significantly less than -1 (two-tailed $p < 0.01$). These coefficients suggest that the effects of negative SI are largely (but not completely) similar to the inter-period expense transfer prototype. However, positive SI are not well-described by any of the four prototypes.

Once the market was divided into the Kospi and Kosdaq markets, I acquired quite diverse results. Table 2, Panel B, shows that by focusing on the negative SI in the Kospi market, the coefficients at all lags are negative and significantly different from zero. Furthermore, the fourth lag coefficient is -1.127 and significantly less than -1 (two-tailed $p < 0.01$). These results support the evidence that, in the Kospi market, the coefficients relating the negative SI in quarter t with seasonally-differenced earnings are broadly consistent with the inter-period expense transfer prototype. However, positive

Table 2
Relation between SIs and Seasonally Adjusted Future Pre-Tax Earnings (PTE) Estimated b1k from Equation (1):

$$(PTE_{t+k} - PTE_{t+k-4}) = b_{0k} + b_{1k}SI_t + b_{2k}(PTE_t - SI_t - PTE_{t-4}) + e_{tk} \quad (1)$$

Panel A: Both Kospi and Kosdaq market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{1k}					
SI > 0	-0.485	0.297	-0.118	0.225^{++}	867
SI < 0	-0.084	-0.326	-0.088	-1.160^{**+}	1,018
Panel B: Kospi market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{1k}					
SI > 0	-0.984^{**}	0.071	-0.121	-0.086^{++}	388
SI < 0	-0.068	-0.053^{*}	-0.252^{**}	-1.127^{**+}	457
Panel C: Kosdaq market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{1k}					
SI > 0	0.317^{**}	0.747^{**}	-0.171^{**}	0.753^{**++}	479
SI < 0	0.037	-1.107^{**}	0.461	-1.825^{**++}	561

Notes: *, ** Significantly different from zero at the 0.05 and 0.01 levels, respectively, in two-tailed tests.
$^{+}$, $^{++}$ Significantly different from -1 at the 0.05 and 0.01 levels, respectively, in two-tailed tests which apply only for estimates of b1 at k = 4.
In all regression tests, the t-statistics I rely on are based on robust-standard errors using one-way clustering by firm to control for time-series dependence and quarter-year dummy to control for cross-sectional dependence.
SI = material positive/negative non-recurring items.

SI in the Kospi market are not well-described by any one of the four prototypes. Table 2, Panel C, shows that all SI in the Kosdaq market are not described by any of the four prototypes. Depending on the market type, the results were found to be different.

Further, to examine the relation between negative SI sub-types and seasonally-differenced future earnings, I estimated Equation (2) because I expected the negative SI sub-types to have differing implications for future earnings.

Table 3 reports the coefficients from the estimation of Equation (2). As shown in Table 3, Panel A, the effect of PPE impairments on future earnings is explained by the inter-period expense transfer, consistent with our expectation. Such an effect, however, is attenuated when the market is divided into the Kospi and Kosdaq markets. Panels B and C of Table 3 do not support the inter-period expense transfer prototype in terms of the effect of PPE impairments.

Table 3, Panel A also suggests that our results with respect to intangibles impairments (ISI) are similar to inter-period expense transfer. Since ISI includes amortizable intangible assets as well as non-amortizable

Table 3
Relation between Negative SIs and Seasonally Adjusted Future Pre-Tax Earnings (PTE) Estimated b11k–b13k from Equation (2):

$$(PTE_{t-k} - PTE_{t+k-4}) = b_{0k} + b_{11k}PSI_t + b_{12k}ISI_t + b_{13k}OSI_t + b_{2k}(PTE_t - SI_t - PTE_{t-4}) + e_{tk} \quad (2)$$

Panel A: Both Kospi and Kosdaq market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{11k} - b_{13k}					
PSI	-0.126	-0.298	-0.822**	-1.141**+	1,018
ISI	-0.663	-0.232	-0.398	-1.498**++	
OSI	-0.028	-0.341	0.116	-1.138**+	
Panel B: Kospi market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{11k} - b_{13k}					
PSI	-0.094	-0.057**	-0.908**	-1.036**	457
ISI	-2.497	-0.523	-1.386*	-3.259**++	
OSI	0.003	-0.038**	0.002	-1.102**+	
Panel C: Kosdaq market					
	k = 1	k = 2	k = 3	k = 4	n
Estimates of b_{11k} - b_{13k}					
PSI	0.207	0.975	-1.899	-7.050**++	561
ISI	-0.012	-0.055	-0.049	-1.055**	
OSI	0.041	-1.530**	0.752*	-1.705**++	

Notes: *, ** Significantly different from zero at the 0.05 and 0.01 levels, respectively, in two-tailed tests.
+, ++ Significantly different from -1 at the 0.05 and 0.01 levels, respectively, in two-tailed tests which apply only for estimates of b1 at k = 4.
In all regression tests, the t-statistics Irely on are based on robust-standard errors using one-way clustering by firm to control for time-series dependence and quarter-year dummy to control for cross-sectional dependence.
PSI = material impairments of property, plant, and equipment (PPE) divided by the market value of equity (MV) in quarter t-4.
ISI = material impairments of intangibles divided by the market value of equity (MV) in quarter t-4.
OSI = material and unspecified loss of other loss, divided by the market value of equity (MV) in quarter t-4.

goodwill, seemingly different results were obtained by Cready et al. (2012) where the effect of goodwill impairment was transitory in nature. However, in the Kosdaq market, the effect of ISI is well-described by a transitory prototype. It is possible that firms in the Kosdaq market have more non-amortizable assets than those in the Kospi market.

Interestingly, the coefficient in the fourth lag of unspecified loss of other loss (OSI) are negative and significantly less than -1 (two-tailed $p < 0.01$) regardless of the market type. Although the impact of OSI on future earnings is not explained by any traditional prototypes, the implication of OSI on future earnings is significantly meaningful. Unspecified loss of other loss items are literally unspecified items; however they should be focused and detailed if their amounts are material and non-recurring because this information is very useful and crucial to investors.

VI. Discussion and Conclusion

This paper aimed to provide implication of material non-recurring items for future earnings. Our findings provide several important points. First, the magnitude and frequency of material non-recurring items have increased since the adoption of IFRS. These results are timely and should be of a great importance to regulators as they deliberate on the future of accounting standards. The analysis also illustrated the importance of SI sub-types. Specifically, unspecified loss of other loss items have meaningful implications for future earnings when they are collectively presented in the income statement. If their amounts are material and non-recurring, they should be separately listed or with more detailed footnotes. Not surprisingly, I found that the implications of SI on future earnings were different depending on the market type.

Ourstudy is subject to several limitations. First, our results are based on a sample covering a relatively short period from 2011 to 2014. Such a sample provides an appropriate setting to test for the effect of SI on future earnings since the adoption of the K-IFRS however, the results may not be generalizable and fully applicable to samples of firms with a longer time series. Furthermore, the sample period is short to extend the analysis in post-SI beyond the four quarters considered in Cready et al. (2012). Second, I focus on the material and non-recurring items chosen by the current study. Such a choice can be ad-hoc and restrict this study to those SI candidates that are not everything of real SI. It is possible that other candidates for SI are more important than those examined in this study. Besides these limitations, this study highlights the economic prominence of SI. I believe that our analysis can be used as a guideline to examine additional issues related to SI in Korea.

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특별손익항목이 미래 이익에 미치는 영향

임승연*

본 연구는 국내 데이터를 이용하여 2011~2014년 간 특별손익항목이 미래 이익에 미치는 영향에 대해 연구하였다. 국내에서는 특별손익항목에 대한 분류가 없기 때문에 본 연구에서는 선행연구를 따라서 금액이 크고 비반복적으로 발생하는 항목을 특별손익항목으로 지정하고 분석하였다. 우선, 미래 이익과 양(+)과 음(-)의 특별손익항목간의 관계를 검토하는 회귀식을 통하여 본 연구에서는 양(+)과 음(-)의 특별손익항목이 미래 이익에 미치는 영향이 다름을 제시하였다. 음(-)의 특별손익항목은 기간 간 비용을 이전하는데 활용되어 미래 비용이 현재 비용으로 이전됨으로써 미래 이익을 증가시키는 데 기여하는 반면 양(+)의 특별손익항목은 전형적인 이론으로는 설명이 안 되는 비정형적인 특성을 보였다. 다음으로 본 연구에서는 음(-)의 특별손익항목을 세분화하여 미래 이익에 미치는 영향에 대해서 검토한 결과, 유형자산 손상차손과 무형자산 손상차손이 부분적으로 기간 간 비용 이전으로 설명이 가능한 데 반하여, 기타 비용항목은 기간 간 비용이전으로 설명되지 않는 것으로 나타났다. 마지막으로 주식시장을 코스피와 코스닥 시장으로 나눠서 검토했을 때, 코스닥시장에서는 기존의 결과들이 약화되거나 사라지는 것을 확인하였다.

주제어 : 특별항목, 기간 간 비용 이전, 일시적인 영향을 주는 항목, 미래이익

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