Changes in Firm's Market Value and Discretionary Accruals with the adoption of IFRS in South Korea

JeongYeon Kim

***Abstract*—** This study examined Korean stock market reactions and firms' financial information changes to the adoption of International Financial Reporting Standards (IFRS) in South Korea. We checked the relationship between firm value and explanatory accounting variables' change with IFRS adoption. Also we reviewed the changes of discretionary accruals as indicator of financial information transparency.

However, we cannot find specific evidence that IFRS adoption generally increases firm's market value. We cannot see any statically significant changes in accounting information with IFRS adoption. As described in previous researches, it'd be very special cases where convergent benefits of IFRS adoption are clearly identified. We cannot find similar analysis results with financial reports of companies listed in South Korea capital market. Even though our data analysis has limitations of short period of data to generalize it to all companies adopting new accounting standards, it may indicate overall changes in financial information with new accounting standards.

***Keywords*—** IFRS; South Korea; market; valuation; accounting, discretionary accruals; modified Jones model

I. Introduction

With the globalization of the world economies, International Financial Reporting Standards (IFRS) has been attracted attentions as a unified language for worldwide business. Beginning with EU's IFRS adoption, we have many empirical researches on the impact of IFRS adoption in several countries[3,15]. Gassen & Shelhorn [13] analyzed German companies voluntarily adopted IFRS and reported that they have a tendency of conservative accounting. Another report from UNCTAD secretariat [27] on Turkey's incremental adoption described the step-by-step approach. The report pointed out the benefit of step-by-step adoption that experience of the early adopters can be helpful others during the transition period.

In 2007, South Korean government presented a roadmap for IFRS adoption and required all listed companies in Korean capital market to use IFRS from 2011. Government expected adoption of IFRS may reduce global companies' additional burdens caused by different financial standards. Also it may be helpful to increase the transparency of financial statements, which is related to international competitiveness of Korean companies.

Researches expect adoption of IFRS reduce information asymmetry risks. Investors can get more financial information of higher quality and easily compare company's financial status or performance across countries [23]. It helps capital market to lower the cost of capital and to be more competitive.

However, adoption of IFRS may have different effects on capital markets. IFRS are principle based financial standards instead of rule-based one, which permit firm's arbitrary decision with public announcements in many areas. Besides, IFRS evaluates firm's assets and liabilities based on market fair value. It may be abused for managerial discretion or earning management reducing the reliability of accounting information. If investors focused on negative side of IFRS adoption, they might have less accountability on firm's reporting accounting information for their investments, which leads accounting information failed to reflect firms' real values. In that case, transition costs associated with IFRS adoption might exceed its benefits described above [25].

This study investigates reaction of the Korean stock market to the adoption of IFRS by comparing firm-year data before and after 2011. We used Tobin's Q as a representative for firm valuation expecting some changes after IFRS adoption. Tobin's Q can be calculated by dividing firm's market value with the replacement cost of firm's assets. If adoption of IFRS effects on firm's book value, we can expect the relationship between Tobin's Q and other financial analytic variables will be changed. The result of regression described in following sections shows that importance of net profit is not changed. Besides, the relationship between the change of Sales and Tobin's Q becomes significant after IFRS adoption.

Also this study investigates the change of discretionary accruals with the adoption of IFRS. Kang [16] reported the survey result from people working with accounting system and showed the experts regard the improvement in transparency of accounting information as the most important positive effect of IFRS adoption. We reviewed the financial statements and check the changes in transparency of accounting information by

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First Author - JeongYeon Kim is with the College of Business Administration, SangMyoung University, 20 Hongjimun 2-gil, Jongno-gu, Seoul 110-743, Republic of Korea (phone +82-2-781-7526, fax +82-2-781-7526 email jykim@smu.ac.kr)

reviewing the changes of discretionary accruals and related financial indexes after introduction of K-IFRS. Based on previous researches on the characteristic of earning management companies [10, 9], we compared selected financial variables to check the transparency of accounting information before and after the adoption of IFRS.

II. Prior Research

A. Accounting information with IFRS adoption

The status of IFRS adoption as a financial statement is different from country by country. Table 1 shows the current status of international IFRS adoption. EU already required listed company in capital market to use IFRS from 2005. Unites States don't require listed company to use IFRS, but allow foreign companies to use IFRS.

Table 1. international adoption of IFRS

Country		Adopt	Year	Target (Company)	Target (Financial Report)
EU	England	O	2005	Listed	Consolidated
	France	O	2005	Listed	Consolidated
	German	O	2005	Listed	Consolidated
US		Δ	-	-	-
Japan		-	2017	-	-
China		Δ	2007	Listed	-
Australia		O	2005	All	All
Korea		O	2011	Listed	All

With the comparison of financial reports based on IFRS and GAAP, the Korean Financial Supervisory Service summarized the effects of IFRS adoption according to the changes of financial reports of representative 2-3 companies from selected industry as table2.

Table 2. Changes of Financial variables and ratios with IFRS adoption (year of 2011, from Financial Supervisory service of Korean Government)

Item	Industry	Asset	Net profit	Debt ratio	ROA	ROE
Consolidated	automobile	-5.57%	-14.15%	-27%	0.04%	-1.33%
	Energy	37.26%	-68.01%	-14%	-0.03%	-0.03%
Individual	Shipbuilding	-2.5%	-17.95%	10%	-1.65%	-4.76%
	Electronics	0.44%	3.61%	1%	0.13%	0.11%
	Chemical	-2.68%	-19.01%	8%	-2.73%	-4.57%
	medical	2.61%	21.12%	12%	0.67%	2.23%
	Metal	2.86%	-9.89%	-1%	-0.98%	-1.78%
	Shipping	9.66%	56.33%	-23%	1.70%	6.09%
	aviation	-24.64%	-9.31%	176%	-0.29%	3.54%
	telecommunication	0.52%	30.26%	5%	2.00%	4.17%
	retail	-2.39%	-10.09%	3%	-0.65%	-0.92%
	Food	4.73%	-6.37%	1%	-0.65%	-0.92%
	Middle size	-1.17%	0.78%	5%	-0.07%	0.13%

Cf) debt ratio = debt / equity
ROA = net profit of term / average asset of term
Consolidated ROE = net profit of term / majority shareholder's average equity
Individual ROE = net profit of term / average equity

The biggest positive change with IFRS adoption was the Energy Sector (consolidated), where the asset increased 37.26% and the net profit decreased 68.0%. The biggest positive change in individual financial statement was shipping sector, where the asset increased 9.66% and the net profit also increased 56.33%. Fair value with IFRS may increase significantly the asset account, while fair value of debt and retirement benefit obligations may decreased it. The next sectors with big changes with IFRS adoption are automotive industry (consolidated) and aviation industry. Automobile industry had change of -5.57% and -14.15% in asset and net profit, while aviation industry had respectively, -24.6% and -9.3%. Other industries such as shipbuilding, electronics, chemicals, metals, tele-communications, retail, and food, the difference is not large.

For debt ratio, energy (14% p), the automobile sector (27% p) and shipping industry (23% p) has larger changes in the the debt-to-equity ratio while aviation sector's debt-to-equity ratio has 176% increase.

For ROA, chemicals, metals, retail, and food industry have been decreased while medical, shipping have been increased. Most of the ROA increases are related with net profit's increases.

For ROE, it may be increased if net profit increases or if asset decrease is greater than the net profit's decrease. Shipping, aviation, telecommunication sectors showed ROE increase.

The further analysis shows that total assets and total liabilities were increased in some industry. In addition, sales, gross profit and operating income were increased but income and loss before income taxes and net income were decreased on the income statements with IFRS. But the differences were not

statistically significant, which may imply fundamental consistency of two accounting standards.

B. Effects of IFRS Adoption

Related to the adoption of IFRS, Several studies [8,2] provided evidences of positive effect of IFRS adoption. However, the effects of IFRS adoption are different from country by country.

Karamanou & Nishiotis [17] analyzed target companies in European countries and reported individual companies adopted IFRS showed positive price changes in capital market. Armstrong et al. [6] analyzed 3265 companies from 17 countries of the EU. In terms of economic benefits of IFRS adoption, they investigated the costs of money and reported various results according each firm's situation. Aisbitt [2] analyzed the impact of the transition to IFRS on the balance sheet of the UK's top 100 companies. With the transition, overall net assets of them did not change significantly. However, the detail items of balance sheet making up firm assets fluctuate significantly according to each company.

C. Account information transparency

As we already described in previous sections, most of accounting experts insist that the most important benefits of IFRS adoption in Korea is the increase of accounting information transparency and decrease of earning management activities.

Besides earnings management through discretionary accruals, many researches describe earning management through real activities manipulation [24]. Cohen et al. [11] insisted they can substitute each other and Zang [28] showed negative correlation between them. Through a survey of corporate executives, Graham et al [14] proved they prefer earning management through real activities manipulation. However, other results show most managers use both of them [19,1]. Park [21] measured the quality of financial information with the size of the discretionary accruals and showed a significant relationship between quality of financial information and probability of delist from capital market.

We can find another approach using financial ratios to identify the earning management activities. Choi [10] reviewed the financial characteristics of companies classified with high possibility of earning management and itemized to score for transparency of accounting information. She selected discretionary accruals, debt-to-equity ratio, net profit margin to sales ratio, and accounts receivable ratio as monitoring factors. Beneish [9] analyzed the relationship between financial statements and reported higher increase of accounts receivable and discretionary accruals. Kim [18] pointed out the possibility of accounting transparency decrease and economic loss with lack of preparations in early stage of adopting of K-IFRS. Powmall & Schipper [22] identified transparency of accounting information and complete public disclosure as indicators of new accounting standards' success.

III. HYPOTHESIS DEVELOPMENT

With above changes with IFRS transition, investors might also react positively if they expect positive cash flow effects such as reduced contracting costs or convergence benefits [7]. For firms with higher agency costs, their market value, reflected in Tobin's Q, increased after the passage of EU regulations intended to converge financial reporting [20].

This study is investigating if we can identify the change of relationship between Tobin's Q and other important accounting information after IFRS adoption. If the Tobin's Q increases after IFRS adoption or IFRS effects on related accounting information without significant business changes, we can identify the change of relationships between firm valuation and finance variables. Market fair value of assets or liability might change related items in financial reports and result in the change on firm valuation methods.

Hypothesis 1: The coefficients from the regression with Tobin's Q and other accounting variables in Korea Capital Market are significantly changed after the IFRS adoption.

Most experts in Korea regards the most important benefit of IFRS adoption is the improvement in transparency of accounting information. We assume that the discretionary accrual is the indicator of earning management. It means adoption of IFRS should reduce the size of the discretionary accruals. We reviewed the financial statements and check the changes in transparency of accounting information by reviewing the changes of discretionary accruals.

Hypothesis 2: IFRS adoption reduces the firms' size of discretionary accruals.

We already showed several researches insist suspicious companies of earning management have some characteristics of financial data. If it is correct, if would be more effective for finding earning management activities to investigate over certain companies having similar characteristics as suspicious company of earning management. However, IFRS makes some changes in financial information as described in table2. For example, if asset increases with IFRS adoption, we'd better to change the criteria of choosing suspicious company of earning management also should be changed. In addition to discretionary accrual, we review the change of other accounting information related to earning management activities.

Based on the precious researches, we selected Debt-to-equity ratio, changes of sales, and ROE as accounting information related to earning management activities. If our assumptions on the effects of IFRS adaptation are right, the size of discretionary accruals will be changed with IFRS adoption, but its' effects on those financial variables are not clear.

Hypothesis 3: IFRS adoption induces change of accounting information, such as debt-to-equity ratio and ROE.

We have seen the accounting item changes described in table 2, but we hope to check the changes are consistent and general to all manufacturing companies.

IV. Regression and Results

A. Regression model and expectation

To review the given hypothesis, Tobin's Q is selected as a representative of firm market value (Weston and Allayannis, 2001) and other explanatory financial variables influencing in firm value estimation methods are selected. Known explanatory variables for firm valuation methods are company size, growth, profitability, stability, and the ownership structure variables. Total assets as a company size indicator, revenue growth as a growth indicator, the return on equity (ROE) as a profitability indicator and debt-to-equity ratio as a stability indicator are selected. Following equations shows the relationship between Tobin's Q and described financial variables.

$$\text{Tobin's } Q = \beta_0 + \beta_1 * \ln(\text{ASSET}) + \beta_2 * \Delta \text{ SALES} + \beta_3 * \text{ROE} + \beta_4 * \text{DEBT} + \varepsilon \quad (1)$$

$$\text{Tobin's } Q = \beta_0 + \beta_1 * \ln(\text{ASSET}) + \beta_2 * \Delta \text{ SALES} + \beta_3 * \text{ROE} + \beta_4 * \text{DEBT} + \beta_5 * \text{Dummy} + \varepsilon \quad (2)$$

Cf) ln(ASSET) : natural log of Assets
Δ Sales : change of sales
ROE : return on equity
DEBT : debt to asset ratio
Dummy : indicator of IFRS

We can expect the coefficient of ASSET / ΔSALES / ROE would be positive while coefficient of DEBT would be negative from equation (1). We will apply the regression equation on firm-year data before and after IFRS adoption separately to see the changes of coefficients. We will apply equation (2) to whole data after that to see if adoption of IFRS increase firm value represented with Tobin's Q.

To check the transparency of accounting information before and after IFRS adoption, we assume that the indicator of earnings management activities is discretionary accruals. If the adoption of IFRS improves transparency of accounting information, the size of discretionary accruals should be smaller after IFRS adoption based on our assumptions.

We use the modified Jones model [12] to get estimate of discretionary accruals. Equation (3) and equation (4) summarize the modified Jones model obtaining the estimate of discretionary accruals by subtracting the estimate of non-discretionary accruals from total accruals.

$$\frac{NDA_t}{A_{t-1}} = \hat{a}_0 \left[\frac{1}{A_{t-1}}\right] + \hat{a}_1 \left[\frac{(\Delta REV_t - \Delta AR_t)}{A_{t-1}}\right] + \hat{a}_2 \left[\frac{PPE_t}{A_{t-1}}\right] + \varepsilon_t \quad (3)$$

Cf) NDA_k = non-discretionary accruals in time t
A_t= natural log of company asset amount in time t
ΔREV_t = revenue change in time t
ΔAR_t = accounts receivable change in time t
PPE_t = tangible assets in time t

$$DA_t = \frac{TA_t}{A_{t-1}} - \left(\hat{a}_0 \left[\frac{1}{A_{t-1}}\right] + \hat{a}_1 \left[\frac{(\Delta REV_t - \Delta AR_t)}{A_{t-1}}\right] + \hat{a}_2 \left[\frac{PPE_t}{A_{t-1}}\right] \right) \quad (4)$$

Cf) TA_t = Total Accruals in time t
DA_t = Discretionary Accruals in time t

With equation (3) and financial data during non-IFRS period, we can estimate each coefficient. Given coefficients of equation (3) and data during IFRS period, we can get estimated discretionary accruals with equation (4). Based on the statistics of estimated discretionary accruals, we can decide the discretionary accruals are reduced with IFRS adoption.

Applying similar approaches on accounting data, we can check their changes after IFRS adoption. If the accounting data is decided as changed, we should revise the criteria for identifying earning management suspicious companies.

With the results of previous researches, we can expect the estimated discretionary accruals reduced because IFRS helps transparency of accounting information. However, it is very hard to expect the effect of IFRS on suggested accounting information. The fair value of assets may increase it and ROE or ROA should be reduced as denominator may increase. Debt also can be increased with fair value evaluation and retirement benefit obligations. The increase ratio of assets and debts mainly affects overall accounting information. Besides, the effect can be clearly identified as described in table 2, but it's depends on economic environment of industry sector and each company's specific situation.

B. Data

We use financial reports during 2009 – 2012 for companies listed in KOSPI market and included in KOSPI 200 index. Also we exclude companies included in other industry instead of manufacturing industry. They are selected as secured items with reliability. The selected firm-year data can be divided into two groups – before IFRS adoption during 2009-2010 and after IFRS adoption during 2011-2012.

Table 3. firm-year data

Group	Company	Firm-Year
KOSPI 200 index	137	534 (274 with IFRS)

The distribution and correlation between variables used in equations are presented in table 4. ROE variable has wide range because some of the companies are listed recently and their old data has small amount of assets compared to others. They can be eliminated, but overall results with modified company groups are not changed.

Table 4. distribution of variables

Variable	Average	SD	Med	Min	Max
ln(ASSET)	21.19	1.38	21.03	16.67	25.62
ΔSALES	0.12	0.27	0.08	-0.99	2.14
ROE	5.68	28.99	9.0	-203.69	307.11
DEBT	0.44	0.18	0.44	0.04	1.06
Tobin's Q	1.34	0.73	1.13	0.51	6.42

With the result of Pearson correlation test described in table 5, we can assume the variables are mostly independent.

Table 5. Pearson Correlation test

	Ln(ASSET)	DEBT	ΔSALES	ROE
Tobin's Q	-0.168 (0.0005)	-0.042 (0.15)	0.117 (0.0025)	0.016 (0.23)
ln(ASSET)		0.211 (0.000)	-0.107 (0.01)	0.034 (0.000)
DEBT			0.002 (0.4)	-0.255 (0.000)
ΔSALES				-0.242 (0.000)

Cf) p-value in ( ) N=534;
* p < .05, ** p < .01, *** p < .001.

C. Regression result for firm market value

According to the results of the regression with equation (1) for non-IFRS firm-year data described in Table 6, variables of sales-increase, and ROE have expected coefficient signs, while asset variable has negative coefficient value. Most reliable stocks included in KOSPI 200 have lower Tobin's Q value if it has more assets. Although the result of overall regression is not fit to linear, it is interesting that asset and debt have unexpected coefficient sign. Besides, only intercept and asset variable are significant. We guess the influence of asset over Tobin's Q is clear.

The results of regression using equation (1) for IFRS firm-year data described in second column of Table 6, shows only DEBT variable has different coefficient sign compared to results for non IFRS data. DEBT and Asset variables have negative coefficients while sales-increase and ROE have positive coefficients. In addition to intercept and asset variable, sales-increase variable is also significant.

Those coefficient sign changes and significant relationship with adoption of IFRS support our hypothesis. It would be an interesting question why sales- increase is more significant after the adoption of IFRS, but we leave it as another next research topic.

Finally, the result of regression using equation (2) for whole data described in last column of table 6, shows there was no increase of Tobin's Q value after adoption of IFRS. Though it's not significant, the sign of dummy value's coefficient is negative. We can assume that firm's market value get lower or firm's book value get higher after IFRS adoption if the firm has same conditions.

As pointed out in research review, Tobin's Q increased cases found among firms with higher agency costs. Higher agency cost is not common in Korea and we guess South Korean companies have different area for convergence benefits with IFRS adoption. With checking more financial report for Korean listed companies, we can find it in following researches.

Except the dummy variable, the signs of coefficients in 3rd column are same as the result of second column. Also intercept, asset and increase of sales are the significant variables for companies' Tobin's Q.

Table 6. Regression results with equation (1) & (2)

	Equation (1) with non-IFRS	Equation (1) with IFRS	Equation(2) with whole data
intercept	3.115 (0.000)***	3.003 (0.000) ***	3.077 (0.000) ***
ln(ASSET)	-0.088 (0.009) ***	-0.078 (0.019) **	-0.082 (0.000) ***
DEBT	0.161 (0.533)	-0.175 (0.500)	-0.027 (0.880)
ΔSALES	0.186 (0.201)	0.438 (0.027)**	0.265 (0.023)**
ROE	0.000 (0.980)	0.001 (0.350)	0.000 (0.860)
Dummy			-0.024 (0.699)
F value	2.37	3.536	4.228
Adj R^2	0.020	0.0358	0.0294

Cf) p-value in ( ) N=534;
* p < .05, ** p < .01, *** p < .001.

D. Regression result for Discretionary Accruals

The statistics of variables in equation (3) during 2009-2010 are summarized in table 7.

Table 7. statistics for veriables in equation (3) (2009-2010, unit: 1,000KRW)

	NDA_t	$1/A_{t-1}$	$(\Delta REV_t - \Delta AR_t)/A_{t-1}$	PPE_t / A_{t-1}
Average	-2460.392	0.048	12742.649	64766.13
STD	28991.80	0.003	63144.167	149293.0
Mid	-578.261	0.048	2642.257	20908.74
Min	-193284.8	0.039	-264295.170	35.824
Max	161509.36	0.059	605965.693	1524106.7

With the data described in table 7, we did regression analysis based on equation (3). The result of regression is summarized in table 8.

T**able 8.** result of regression with equation (3)

	Coefficient	Std	t-stat	P-Value
$1/A_{t-1}$	55797.45	35634.13	1.57	0.12
$(\Delta REV_t - \Delta AR_t)/A_{t-1}$	-0.06	0.04	-1.70	0.09*
PPE_t/A_{t-1}	-0.07	0.01	-4.74	0.00***
F value	6.15E-15			
Adj R^2	0.222			

Cf) * p < .05, ** p < .01, *** p < .001.

The adjusted R^2 is quite lower but we can improve the fitness of regression separate the data considering the industry sectors. As we have seen in table 2, there are many differences caused by characteristics of industry after IFRS adoption. However, the purpose of this research is overview of changes in capital market, so we just accept the current regression result to create estimated discretionary accruals.

The statistical summary of financial variables including estimated discretionary accrual is listed in table 9.

T**able 9.** Statistics of Estimated Dicretionary Accurals & related financial variables (unit: 1,000KRW)

Period	Variables	Ave	SD	Med	Min	Max
Before K-IFRS	TA	-58914.5	692799.2	-12203.7	-4909003.0	3832347.5
	Asset	4349441.6	10469371.2	1270679.7	23472.2	107179000.0
	Debt	1922879.6	3656141.1	452073.7	9680.3	27211835.0
	Δ Sales	406166.4	1960607.5	65133.8	-5576339.5	22476641.0
	ROE	0.4%	8.0%	1.2%	-120.4%	16.6%
After K-IFRS	TA	-135127.2	787407.0	-20831.9	-8097272.0	2580851.0
	Asset	5173840.4	13052698.4	1492508.7	100904.7	133264000.0
	Debt	2185333.5	4065941.0	632174.2	17998.1	29142943.0
	Δ Sales	626640.4	2150857.6	107640.7	-1274933.0	22476641.0
	ROE	0.7%	3.0%	0.7%	-14.2%	39.7%
	Estimated DA	-2469.8	29046.1	-592.99	-193285	161509

With the statistics in table 9, we can have t-statistics to compare samples from two financial standards.

First, we set a null hypothesis that the average of estimated discretionary accrual is zero to check if discretionary accruals under IFRS are reduced. The average of estimated discretionary accruals has negative sign. We can interpret the fact as transparency of accounting information increased and earning management activities are minimized with financial standard changes. Otherwise, we can interpret the fact as companies decide to reserve current increased profit.

Even though we cannot exactly interpret the meaning of average below 0, we can check the null hypothesis with the statistics. Current t-statistics of discretionary accrual is 1.41 and we cannot reject the null hypothesis under 5% significance level. Therefore, we can say that the discretionary accruals are not reduced or increased with IFRS adoption.

Also we can compare the asset sizes between before and after IFRS adoption. The average of Assets is increased after IFRS adoption from 4,349,441,600 KRW to 5,173,840,400 KRW. The null hypothesis is that there is no difference caused by IFRS adoption. T-statistic of assets is 0.8125 and we cannot reject the null hypothesis under 5% significance level.

Therefore, we can conclude that there are no big changes in finance variables overall capital market in Korea after IFRS adoption, even though we can see some differences in asset or other finance variables in certain industry as described in table 2.

Table 10. Pearson corelation coefficents between variables (2011-2012)

Var.	DA	TA	Asset	Debt	Δ Sales	ROE
DA	1.00	**0.877**	-0.008	-0.050	-0.176	0.313
TA		1.00	-0.469	-0.457	-0.607	0.215
Asset			1.00	0.907	0.917	0.027
Debt				1.00	0.751	-0.004
Δ Sales					1.00	0.040
ROE						1.00

Table 10 shows the correlation between selected financial variables and estimated discretionary accrual. We cannot see any highly corresponding financial variables with discretional accruals. The highest values of correlation coefficients are related assets.

V. Conclusion

This study investigates the effects of IFRS adoption on firm's market value and financial information including discretionary accrual.

Prior researches pointed out IFRS adoption helps accounting information transparency and capital market's competitiveness.

To verify the effect of IFRS adoption, we select Tobin's Q as representative of firm market value and other firm value explanatory variables such as asset, debt, ROE and sales increase. Also we assume discretionary accrual as indicator of accounting information transparency. Therefore, we may expect positive effect of IFRS adoption on firm market value because of the introduction of market fair value for assets or liabilities. We also may expect less discretionary accrual after IFRS adoption.

Besides we review the relationship between discretionary accruals and other financial variables such as debt-to-equity ratio, change of sales, and ROA, which are highly correlated with earning management activities.

Obtained conclusions through data analysis follow.

First, we can verify that the results of regression between Tobin's Q and selected explanatory accounting information are different according to data set. Regression results with Non IFRS data show only assets are significant and its sign of coefficient is negative. The regression results with IFRS data shows assets and increase of sales are significant. The sign of DEBT variable's coefficient is changed in the second regression, too. We reviewed the influence of explanatory variables on Tobin's Q is clearly expressed after IFRS adoption.

Second, we cannot find a proof that IFRS adoption increases firm value with regression results for whole data. Dummy variable's coefficient is not statistically significant. It means just IFRS adoption is not helpful for firm value increase. We have to identify criteria of those with more investigations.

Third, discretionary accruals and other accounting variables have differences in average, but the differences are not statistically significant. It means we cannot expect dramatic changes of accounting information even after IFRS adoption in near future. Also the increase of accounting information transparency cannot be identified. Most accounting experts have anticipated it though.

Forth, we cannot identify specific correlation between discretionary accruals and other accounting variables. ROE has higher correlation coefficient than other selected accounting variables. We can interpret the fact that discretionary accrual is more used to reserve net profit instead of recovering shortage of planned earning.

Current empirical results show the relationship changes between firm valuation methods and related accounting information. Unfortunately all the changes with IFRS adoption are not statistically significant though.

However, the results on firm market value could be applicable in a wide range of firm valuations. Besides, we need more theoretical discussion on the additional results and more data review for better model fit for regression. The additional research is required to identify industry in Korea where IFRS adoption shows convergent benefits such as reducing high agency costs.

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JeongYeon Kim is a professor at Department of Business Administration, Sangmyung University. She was a Researcher of United Technology Institute, Financial consulting director of SEIO Co. and SERIN Co. Now, She is a Director of Korea Accounting Information association, The Korean Research Association for the Business Education, The Korea Academy of International Business Education and The Korean Association for Research of Industrial Security. She is interested in the analysis of the accounting information, information security and forecasting.