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IFRS Adoption and Accounting Conservatism of Japanese Firms with Governance System Transition

Konosuke Shimamoto[1] · **Fumiko Takeda**[1]

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Abstract This study examines whether there is a difference in the degree of accounting conservatism between firms that voluntarily adopt International Financial Reporting Standards (IFRS) and those that use local accounting standards in Japan, being a traditional code-law country that is undergoing changes in its governance system. The difference-in-difference approach reveals that the degree of conditional conservatism decreases for IFRS adopters and more sharply for Japanese accounting standards' users between 2009/2010 and 2018/2019, resulting in relatively larger conditional conservatism for IFRS adopters. The regression analysis shows that the change in conditional conservatism is positively associated with IFRS adopters having a high foreign shareholders ratio. This study makes several contributions to the related literature. First, to the best of our knowledge, this study is the first to provide a comparative analysis of IFRS and Japanese accounting standards with respect to conservatism. Second, additional evidence is provided on the relationship between conservatism and corporate governance.

Keywords Voluntary IFRS adoption · Conservatism · Japan · Corporate governance

JEL Classification M41 · M48

Introduction

This study examines whether there is a difference in the degree of accounting conservatism between firms that voluntarily adopt the International Financial Reporting

✉ Fumiko Takeda
ftakeda@g.ecc.u–tokyo.ac.jp

[1] Department of Technology Management for Innovation, University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-8656, Japan

Standards (IFRS) and those that use local accounting standards in Japan, being a traditional code-law country that is undergoing changes in its governance system. The sixth general principle of Japanese Generally Accepted Accounting Principles (J-GAAP) is the "principle of conservatism," which stipulates that firms should make prudent accounting choices and estimates when future events would have negative effects on their financial conditions. In other words, firms should adopt accounting treatment based on a careful judgment in preparation for foreseen future risks.

In the IFRS, neutrality is one of the three characteristics of faithful representation (QC12, 14). In addition, the International Accounting Standards Board (2018) (IASB) had not included prudence, a concept similar to conservatism, in the conceptual framework since 2010 (BC3.19) because it could lead to biased financial information and thus violate neutrality. Instead, the IASB gradually increased the application of fair value measurements (IFRS 13), which should be unbiased, to financial instruments (IFRS 9), investment property (IAS 40), and biological assets (IAS 41), as well as tangible fixed assets (IAS 16) and intangible assets (IAS 38) by allowing alternative treatment. However, as fair value accounting was blamed for exacerbating the severity of the 2008 global financial crisis (Laux and Leuz 2010), the IASB proposed reintroducing the notion of prudence in the Exposure Draft of a new Conceptual Framework in 2015. The revised 2018 Conceptual Framework emphasizes that prudence is neither inconsistent with neutrality nor asymmetric between assets (revenue) and liabilities (expenditure) (IASB 2018).

Against this backdrop, whether IFRS is more or less conservative than J-GAAP is *a priori* unclear. In recent years, studies on accounting conservatism often fall into two categories: 'conditional conservatism' and 'unconditional conservatism' (Basu 1997; Watts 2003; Beaver and Ryan 2005). Conditional conservatism refers to an accounting practice that records expenses and losses earlier and overstates them when firm value declines due to economic losses compared to profits when firm value improves due to economic benefits. Unconditional conservatism is an accounting process that proactively records expenses before firm value declines due to economic losses. The nature of these two types of conservatism differs significantly, as does their impact on financial reporting.

Previous research suggests that accounting practices vary across different institutional settings, typically divided between common-law countries characterized by a shareholder governance system and code-law countries that feature a stakeholder governance system. Unlike a shareholder governance system, the stakeholder governance system is characterized by debt financing; shareholders with affiliated interests; and interconnected networks among affiliated firms, their trading partners, and the main banks (Shleifer and Vishny 1997; Hoshi and Kashyap 2001). Since information asymmetry tends to be resolved in code-law countries through closer relations with major stakeholders, the degree of conditional conservatism is considered to be smaller in code-law countries than in common-law countries (Ball et al. 2000; Giner and Rees 2001). Instead, unconditional conservatism and income smoothing are more likely to be observed in code-law countries characterized by debt-financing (Gassen et al. 2006; Gassen and Fulbier 2015).

Japan provides a unique institutional setting to examine the effect of a change in the corporate governance system on accounting practice. Conventionally, Japan has been classified as a code-law country whose firms typically have a stakeholder governance system (La Porta et al. 1998; Ball et al. 2000). However, after the collapse of the

economic bubble in the early 1990s, Japanese firms experienced a change in their corporate governance system from the so-called main-bank system to a system with more emphasis on shareholder governance (Miyajima 2014). These changes indicate a decrease in income smoothing and unconditional conservatism.

In addition, Japanese accounting standards also changed in the last decade. Following the EU's mandatory adoption of IFRS in 2005, the IASB and the Accounting Standards Board of Japan (ASBJ) started a joint project to eliminate differences between IFRS and Japanese GAAP. At the same time, the voluntary adoption of IFRS was approved in 2010, and the number of firms adopting IFRS began to increase since 2013. As of June 2019, 198 firms adopted IFRS and 27 more announced their decision or plan to adopt it. The total market capitalization of these firms at the end of June 2019 was about 225 trillion yen, which is equivalent to about 36% of the total market capitalization of firms listed on the Tokyo Stock Exchange (Japan Exchange Group 2019).

Several prior studies that used European data report a decrease in conditional conservatism under IFRS (Zeghal et al. 2012; Ahmed et al. 2013; Andre et al. 2015; Piot et al. 2015).[1] Nonetheless, to the best of our knowledge, almost no studies provide a comparative analysis of IFRS and J-GAAP with respect to conservatism. Therefore, this study examines whether there is a difference in the degree of conditional conservatism between firms that adopted IFRS and those that use J-GAAP. It is noteworthy that voluntary IFRS adoption may generate a self-selection bias attributable to firm-level reporting incentives. To reduce this potential self-selection bias, this study employs a propensity score matching (PSM) approach and chooses control firms with a high probability of adopting IFRS, but that continue to use J-GAAP instead. Based on the difference-in-difference approach, the degree of conditional conservatism was compared between 2009/2010 (pre-IFRS adoption) and 2018/2019 (post-IFRS adoption) and between IFRS adopters and J-GAAP users.

Difference between J-GAAP and IFRS

The J-GAAP to IFRS convergence has been an on-going process and, by now, most of the major differences have been eliminated between the two standards. However, the remaining differences are related to conservatism. On one hand, IFRS includes conditional conservatism elements, such as recognition of contingent liabilities and non-recognition of contingent assets (IAS 37), the lower of the cost or net realizable values for inventories (IAS 2), and impairment of financial assets and long-lived assets (IFRS 9 and IAS 36).

The last impairment loss means that when the firm makes an investment it cannot expect to recover due to the decline in profitability, it records an impairment loss. Both IFRS and J-GAAP require that firms record the impairment loss. However, whether a reversal of the impairment loss is allowed when economic conditions change is one of the important remaining differences between IFRS and J-GAAP. Under J-GAAP, even

[1] Previous studies using data from other countries reported the opposite results (Barth et al. 2008; Chua et al. 2012). Kim (2016) recently showed that both users of Russian local accounting standards and IFRS users before mandatory adoption had a lower degree of conditional conservatism than those that adopted IFRS when adoption became mandatory.

if the firm expects profitability to improve later, in principle, it cannot reverse this impairment loss (ASBJ 2009).[2] By contrast, under IFRS, the firm can reverse the impairment to the extent that the recoverable amount is measured and this recoverable amount exceeds the book value after impairment (IAS 36). This contrast applies to tangible fixed assets (IAS 36.110), financial assets except for trading securities (IFRS 9.5.5.8), and inventory (IAS 2.33).

However, this difference in the reverse of impairment loss does not necessarily mean that IFRS has less conditionally conservative elements. It is reasonable to expect that IFRS adopters will more frequently and willingly record impairment loss than J-GAAP users, who must make sure that the impairment is permanent because it cannot be reversed once recognized. If IFRS adopters are more likely to record impairment loss, IFRS should have stronger conditional conservatism elements than J-GAAP does.

On the other hand, IFRS has stronger unconditional conservatism elements than J-GAAP does for retirement benefits, as the actuarial difference is not deferred under IFRS (IAS 19.122), while expenses are recorded over a period of time under J-GAAP (ASBJ 2012). However, there are also cases in which J-GAAP has stronger unconditional conservatism elements, such as for goodwill and research and development (R&D) expenses (ASBJ 2008, 2013). Goodwill is the difference between the consideration paid and the fair value of the identifiable net assets. Under J-GAAP, goodwill is recorded as an intangible asset and amortized using the straight-line method over a period of 5–20 years; however, it is not amortized under IFRS and is subject to an impairment test every term (IAS 38.107, 108).

R&D expenses in J-GAAP must be recorded as expenses when incurred (accounting standards related to R&D expenses, etc.), including software development costs that fall under R&D. However, research expenses under IFRS are recorded as expenses (IAS 38.54), while development expenses are recognized as intangible assets only when certain requirements such as technical feasibility and the company's intent to use or sell them can be proven (IAS 38.57). Furthermore, under IFRS, in-process R&D resulting from other firms' R&D activities is a potential asset that the firm buys based on its expected economic benefits, and is capitalized accordingly (IAS 38.34). However, it is charged as an immediate expense under J-GAAP.

To summarize, whether IFRS is more or less conservative compared to J-GAAP is *a priori* unclear. On the one hand, IFRS attaches importance to neutrality in order to improve comparability, so there should be no differences in handling income and expenses when firm value improves and when it declines. On the other hand, IFRS surely has conservative elements. The comparison between these two standards reveals that in general, J-GAAP is likely to have more (less) elements of unconditional (conditional) conservatism than IFRS is. The next section develops hypotheses that are tested in the rest of this study.

Hypotheses Development

As Beaver and Ryan (2005) discussed, the two types of conservatism have an inverse relationship with each other. That is, as firms become more unconditionally

[2] The US-GAAP also prohibits the reversal of impairment loss (SFAS 144).

conservative, conditional conservatism becomes invalidated or suppressed. If bad news occurs at some point and the profitability of assets is expected to deteriorate, impairment is carried out. However, when amortizing assets in a situation of strong unconditional conservatism, the impairment amount will be small, because the book value before impairment is smaller than the book value amortized in a situation of no unconditional conservatism. In contrast, if amortizing under an accounting policy with a low degree of unconditional conservatism, the effect of conditional conservatism when the bad news occurs is significant.

In addition, the model of Beaver and Ryan (2005) needs lagged variables for 10 years. Perhaps this is one of the reasons why most of the previous empirical studies on the relationship between IFRS and accounting conservatism have focused on conditional conservatism. Considering that IFRS adoption was only approved after 2010 in Japan, most of the Japanese adopters do not have a sufficiently long period of data to estimate the degree of unconditional conservatism. Thus, the present study focuses only on conditional conservatism.

As discussed in the previous sections, Japan's conventional institutional setting as a code-law country indicates a high degree of unconditional conservatism and a low degree of conditional conservatism. The same pattern is suggested by the detailed comparison between J-GAAP and IFRS, particularly as seen in the differences in goodwill accounting and R&D expenses. Therefore, the following hypothesis is formulated.

> H1: *Firms that adopted IFRS have a higher degree of conditional conservatism than those that use J-GAAP.*

At the same time, Japanese firms have been undergoing changes in corporate governance from the main-bank system to a system with more emphasis on shareholders. Because the bank-centered system tends to be associated with unconditional conservatism, the decline in bank financing suggests a decline in unconditional conservatism and a relative increase in conditional conservatism. By considering foreign shareholders as representative of outsiders and leverage as representative of creditors, the following hypothesis is developed:

> H2: *The change in the degree of conditional conservatism is positively associated with the foreign shareholders ratio and negatively associated with the leverage ratio.*

H2 is consistent with previous findings by Shuto and Takada (2010), which report that the degree of conditional conservatism is higher for firms with a low ratio of shareholding by management.

Research Design

Degree of Conditional Conservatism

To estimate the degree of conditional conservatism, this study employed Khan and Watts' (2009) model, which is an extension of Basu's (1997) model. Specifically, the following equation was estimated for IFRS adopters (treatment firms) and J-

GAAP users (control firms) separately using cross-sectional data based on financial statements of the fiscal year-end for 2009/2010 (pre-IFRS adoption) and 2018/2019 (post-IFRS adoption).

$$X_i = \beta_1 + \beta_2 D_i + R_i(\mu_1 + \mu_2 MK_i + \mu_3 MTB_i + \mu_4 LEV_i) + D_i R_i(\lambda_1 + \lambda_2 MK_i + \lambda_3 MTB_i + \lambda_4 LEV_i) + (\delta_1 MK_i + \delta_2 MTB_i + \delta_3 LEV_i + \delta_4 D_i MK_i + \delta_5 D_i MTB_i + \delta_6 D_i LEV_i) + \varepsilon_i \quad (1)$$

where X is the pre-tax net income divided by net assets; D is a dummy variable that takes the value of 1 if R is negative and 0 otherwise; R is the annual stock return; MK is the natural logarithm of market capitalization; MTB is the market to book ratio, and LEV is the ratio of total debts over total assets.

The coefficient on D measures the incremental timeliness of earnings with respect to negative return generated by bad news. This coefficient indicates the asymmetric timeliness of earnings, as it represents the difference in the sensitivity of earnings to good news and bad news. The coefficient on DR measures the degree of accounting conservatism, which is the primary concern. Following Basu (1997), the stock return R was calculated between the three months after the beginning of the fiscal year and three months after the fiscal year-end. The reason for leaving the three months is to avoid the effect of annual earnings announcement on stock returns (Givoly and Palmon 1982; Easton and Harris 1991). This study used cross-sectional data for two periods, 2009/2010 and 2018/2019. The year 2010 is when the voluntary adoption was approved and 2019 is the most recent year.

The degree of conditional conservatism was proxied by the incremental timeliness of bad news, or a *C_Score*, and the timeliness of good news by a *G_Score*. The *C_Score* and *G_Score* are calculated as follows:

$$\text{C\_Score} = \lambda_1 + \lambda_2 MK_i + \lambda_3 MTB_i + \lambda_4 LEV_i. \quad (2)$$

$$\text{G\_Score} = \mu_1 + \mu_2 MK_i + \mu_3 MTB_i + \mu_4 LEV_i. \quad (3)$$

Selection of Control Firms

To investigate the effect of voluntary IFRS adoption on the degree of conservatism, the degree of conditional conservatism was compared between firms that voluntarily adopt IFRS (treatment firms) and firms that do not (control firms). Specifically, propensity score matching (PSM) was employed to select control firms that have a high probability of IFRS adoption. The use of PSM was to mitigate potential self-selection bias attributable to firm-level reporting incentives generated by voluntary IFRS adoption.

Since this study focuses on the relationship between IFRS and corporate governance, the probit model presented by Sato and Takeda (2017) was

estimated for all firms listed on the Japanese stock exchanges in 2019, except for banks, as follows:

$$P_r(IFRS = 1) = F\left(\begin{array}{l}\alpha + \beta_1 Foreign + \beta_2 Auditor + \beta_3 Leverage + \beta_4 JPX400 \\ + \beta_5 NominatingCommittee + \beta_6 Size + \beta_7 ROA + \beta_8 Loss \\ + \beta_9 Age + \beta_{10} ElectricAppliance + \beta_{11} Information\&Communication \\ + \beta_{12} Service + \beta_{13} Pharmaceutical + \beta_{14} TransportEquipment \\ + \beta_{15} Chemical + \beta_{16} WholesaleTrade.\end{array}\right) \quad (4)$$

IFRS is an indicator variable that takes the value of 1 if the firm announces voluntary IFRS adoption and 0 otherwise. The next five variables (*Foreign*, *Auditor*, *Leverage*, *JPX400*, and *NominatingCommittee*) are related to corporate governance. *Foreign* is the ratio of foreign shareholders among total shareholders. *Leverage* is a ratio of debt over assets, which shows the relative importance of creditors and shareholders in the firm's financing. *Auditor* is a dummy variable that takes the value of 1 if the firm is audited by a Big Two audit firm, namely, Ernst & Young ShinNihon LLC or Deloitte Touche Tohmatsu LLC, which is not directly related to the accounting fraud of Olympus in 2011 and 0 otherwise. *JPX400* is a dummy variable that takes the value of 1 if the firm is included in the JPX-Nikkei Index 400 and 0 otherwise. *NominatingCommittee* is a dummy variable that takes the value of 1 if the firm has a nominating committee and 0 otherwise. Following Takeda and Watanabe (2016) and Sato and Takeda (2017), positive coefficients were expected on these variables except for *Leverage* because firms that no longer adopt the traditional governance system are more likely to adopt IFRS.

Size is the natural logarithm of total assets. *ROA* is return on assets (%). *Loss* is a dummy variable, which takes 1 if the firm has negative net income and 0 otherwise. Large and profitable firms are more likely to have sufficient resources to prepare for a change in accounting standards and thus to adopt IFRS than small firms are. Consequently, a negative coefficient was predicted for *Loss,* while positive coefficients were predicted for *Size* and *ROA*. These predictions are consistent with results in Takeda and Watanabe (2016) and Sato and Takeda (2017). *Age* was also included, which is the natural logarithm of the number of years the firm has been in business, to control for the possible effect arising from firms' business experiences.

The remaining seven variables were dummy variables for industries that had the largest number of IFRS adopters. Using the estimated coefficients (β_k; $k = 0, \ldots, 16$), the propensity score of voluntary IFRS adoption was calculated. Based on the score, 300 control firms were selected which had the highest score but did not adopt IFRS. This selection of control firms was not one-to-one matching, which has been criticized by prior studies (Shipman et al. 2017).

Hypotheses Testing

To test H1, a difference-in-difference (DID) approach was employed. First, univariate analyses were conducted to compare the degree of conditional conservatism (*C-Score*) between the periods 2009/2010 and 2018/2019 and between treatment firms

(IFRS adopters) and control firms (J-GAAP users) by using Welch's t-test. Second, a regression analysis was conducted for treatment and control firms based on the following model:

$$C{-}Score = \alpha + \beta_1 IFRS + \beta_2 Year + \beta_3 IFRS{*}Year + \varepsilon. \quad (5)$$

The dependent variable is the degree of conditional conservatism (*C-Score*). *IFRS* is an indicator variable that takes the value of 1 if the firm voluntarily adopted IFRS and 0 otherwise. *Year* is a dummy variable that takes the value of 1 for variables used to estimate the degree of conservatism in 2018/2019 and 0 otherwise. For reference, Eq. (5) was estimated using the timeliness of good news (*G-Score*) as the dependent variable.

To test H2, the following model was estimated where Δ indicates the change between the periods 2009/2010 and 2018/2019. For other variables, this study used the value of the 2018/2019 period.

$$\Delta C{-}Score = \alpha + \beta_1 IFRS + \beta_2 Foreign + \beta_3 Foreign{*}IFRS + \beta_4 \Delta Foreign + \beta_5 Leverage + \beta_6 Leverage{*}IFRS + \beta_7 \Delta Leverage + \varepsilon. \quad (6)$$

It is noteworthy that $Foreign * IFRS$ is an interaction term between the foreign shareholders ratio and the IFRS dummy variable, and $Leverage * IFRS$ is an interaction term between the leverage and the IFRS dummy variable. Based on H2, a positive coefficient was expected for *Foreign*, $Foreign * IFRS$, and $\Delta Foreign$, and a negative coefficient for *Leverage*, $Leverage * IFRS$, and $\Delta Leverage$.

Selection of Treatment and Control Samples

The list of firms that adopted IFRS was provided by the Japan Exchange Group (2020). The initial sample consisted of 167 firms that disclosed IFRS-based financial statements by March 2019. To estimate the degree of conditional conservatism (*C-Score*), 17 firms were excluded that changed accounting standards from US-GAAP and 22 firms that lacked any variables in Eq. (1) for both the 2009/2010 and 2018/2019 periods. Thus, the final treatment sample consisted of 128 listed firms for the *C-Score*.

Table 1 Average *C-Score*s of IFRS adopters and J-GAAP users

	No.	C-Score 2009/2010	C-Score 2018/2019	Difference	
				C-Score	t-stat
IFRS adopters (A)	128	0.156	0.082	−0.073	−2.438 **
J-GAAP users (B)	252	0.619	−0.128	−0.748	−12.887 ***
Difference: (A)-(B)		−0.464	0.210	0.674	12.679 ***
t-stat		−15.391 ***	3.628 ***		

Source: Own calculations using data from Kaisha Shikiho (Toyo Keizai 2010, 2019). Notes: *** and ** indicate statistical significance at the 1% and 5% levels, respectively

Table 2 Average *G-Score*s of IFRS adopters and J-GAAP users

	No.	2009/2010 G-Score	2018/2019 2018/2019	Difference	
				C-Score	t-stat
IFRS adopters (A)	128	−0.013	0.049	0.063	5.042 ***
J-GAAP users (B)	252	−0.175	−0.011	0.164	7.421 ***
Difference: (A)-(B)		0.162	0.060	−0.102	−4.873 ***
t-stat		26.125 ***	2.439 ***		

Source: Own calculations using data from Kaisha Shikiho (Toyo Keizai 2010, 2019). Notes: *** indicates statistical significance at the 1% level

The selection of control firms was similar. Based on the propensity score of voluntary IFRS adoption, 300 listed firms were selected which had the highest score but did not adopt IFRS. Then 48 firms were deleted which used US-GAAP or lacked variables included in Eq. (1). The final control sample consisted of 252 listed firms. Stock price data were retrieved from Yahoo! Finance Japan (2019) and financial data from Toyo Keizai (2010, 2019).

Empirical Results

Table 1 reports the average *C_Score* of IFRS adopters and J-GAAP users for the periods 2009/2010 and 2018/2019. In 2009/2010, J-GAAP users' *C-Score* was significantly larger than that of the IFRS adopters at the 1% level. Between the two periods, both of them reduced their *C-Scores* significantly. Because the reduction of *C-Score* was larger for J-GAAP users than for IFRS adopters, in 2018/2019, IFRS adopters' *C-Score* was significantly larger than that of the J-GAAP users at the 1% level.

Table 3 Difference-in-Differences estimation results for *C-Score* and *G-Score* (N = 760)

Variable	*C-Score*		*G-Score*	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Constant	0.619	17.925 ***	−0.175	−13.189 ***
IFRS	−0.464	−7.791 ***	0.162	7.069 ***
Year	−0.748	−15.295 ***	0.164	8.758 ***
*IFRS*Year*	0.674	8.007 ***	−0.102	−3.139 ***
Adjusted R^2	0.241		0.143	
S.E. of regression	0.549		0.211	
Akaike info criterion	1.642		−0.271	
F-statistic	81.386 ***		43.139 ***	

Source: Own calculations using data from Kaisha Shikiho (Toyo Keizai 2010, 2019). Notes: *** indicates statistical significance at the 1% level

Table 4 Relationship between conditional conservatism and corporate governance (N = 380)

	Model 1		Model 2		Model 3		Model 4	
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Constant	−0.425	−3.942 ***	−0.408	−3.606 ***	−0.424	−2.949 ***	−0.427	−3.921 ***
IFRS	0.390	2.477 **	0.399	2.516 **	0.370	1.583 **	0.393	2.471 **
Foreign	−0.011	−3.219 ***	−0.012	−2.880 ***	−0.011	−3.210 ***	−0.011	−3.217 ***
*Foreign*IFRS*	0.010	1.809 *	0.010	1.818 *	0.010	1.806 *	0.010	1.808 *
Δ *Foreign*			0.001	0.516				
Leverage					0.000	−0.018		
*Leverage*IFRS*					0.000	0.120		
Δ *Leverage*							0.000	0.136
Adjusted R^2	0.210		0.209		0.206		0.208	
S.E. of regression	0.643		0.644		0.645		0.644	
Akaike info criterion	1.965		1.969		1.975		1.970	
F-statistic	34.622 ***		25.982 ***		20.667 ***		25.903 ***	

Source: Own calculations using data from Kaisha Shikiho (Toyo Keizai 2010, 2019). Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively

Table 2 reports the average *G_Score* of IFRS adopters and J-GAAP users for the two periods. The results were almost opposite to the *C-Score*'s results. In 2009/2010, IFRS adopters' *G-Score* was significantly larger than that of J-GAAP users at the 1% level. Between the two periods, both of them increased their *G-Scores* significantly at the 1% level. Because the increase in the *G-Score* is larger for J-GAAP users than for IFRS adopters, in 2018/2019, IFRS adopters' *G-Score* was significantly smaller than that of J-GAAP users at the 1% level.

Table 3 shows the estimated results of Eq. (5) for the *C-Score* and *G-Score*. The results are consistent with those of the univariate analyses presented in Tables 1 and 2. The three tables show that J-GAAP users disclosed bad news earlier and good news later than IFRS adopters did for the 2009/2010 period. Because the decrease in the degree of conditional conservatism was larger for J-GAAP users than for IFRS adopters, the degree of conditional conservatism became larger for IFRS adopters than for J-GAAP users in 2018/2019. Instead, the increase in the timeliness of good news was smaller for IFRS adopters than for J-GAAP users and the degree of the timeliness of good news became smaller for IFRS adopters than for J-GAAP users in 2018/2019.

The next question is what brings down the degree of conditional conservatism between the 2009/2010 and 2018/2019 periods, and why IFRS adopters tend to have relatively larger degrees of conditional conservatism in 2018/2019. Since Japanese firms experience on-going changes in corporate governance, this study examined the relationship between the change in conditional conservatism and corporate governance by estimating Eq. (6). The results are presented in Table 4, in which the VIFs are less than five for all models.

For all models, *IFRS*, *Foreign*, and *Foreign*IFRS* were statistically significant. Both *IFRS* and its interaction with *Foreign* had significant, positive coefficients at the 5% and 10% levels, respectively. The results indicate that IFRS adopters tend to have a higher degree of conditional conservatism, and this tendency becomes more intense when a firm has a high foreign shareholders ratio. Because firms with a high foreign shareholders ratio are less likely to be influenced by their main banks, they are expected to have a low degree of unconditional conservatism and thus, a relatively high conditional conservatism. The coefficients of *Foreign* were significantly negative at the 1% level. This means that J-GAAP users with high foreign shareholders ratios tend to reduce the degree of conditional conservatism, indicating that J-GAAP contains more unconditionally conservative elements than IFRS does.

Concluding Remarks

The present study investigated whether there is a difference in the degree of accounting conservatism between firms that voluntarily adopt IFRS and those that use local GAAP in Japan, being a traditional code-law country that is undergoing changes in its governance system. The difference-in-difference approach reveals that the degree of conditional conservatism decreases for IFRS adopters and more sharply for Japanese GAAP users between the periods of 2009/2010 and 2018/2019, resulting in a relatively larger conditional conservatism for IFRS adopters. This study also shows that the change in conditional conservatism is positively associated with IFRS adopters having a high foreign shareholders ratio. The results are consistent with the notion that in

general, IFRS is more conditionally conservative and less unconditionally conservative than J-GAAP is, and firms that have a governance system that focuses more on shareholders tend to have a higher degree of conditional conservatism than those that have a bank-centered governance system.

While to the best of our knowledge, this study is the first to provide a comparative analysis of IFRS and J-GAAP with respect to conservatism, it is not exempt from several limitations. Although the sample size of firms that announced IFRS adoption is sufficient for statistical analysis, it still consists of only a small portion of all listed firms in Japan. In particular, data covering a longer period would enable researchers to estimate the degree of unconditional conservatism based on Beaver and Ryan (2005). Probably this limitation will become less problematic as the cumulative number of Japanese firms adopting IFRS continues to increase.

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