An Empirical Assessment of IAS 40 Investment Property

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This study examines the value relevance of the fair value model versus the cost model for evaluating investment properties under IAS 40 Investment Property. Contrary to the popular belief that fair value is the most relevant measurement attribute, we find that the coefficient estimate of investment properties for Chinese companies that adopted IAS 40's fair value model is significantly smaller than its theoretical value, and is not significantly different from zero, suggesting that reported fair values are not value relevant as perceived by investors for the sample firms. Furthermore, investors tend to adjust the valuation of fair value companies' non-investment property assets downward. The findings do not support the claim that fair value is superior to historical cost for the investment property valuation. Our findings highlight the need for more implementation guidelines from the IASB to enhance the value relevance of fair value estimates under IAS 40.

Keywords: IFRS, IASB, investment property, fair value, China

INTRODUCTION

Investment property refers to land and/or buildings held either for capital appreciation or to earn rentals (or both). International Accounting Standard (IAS) 40, "Investment Property," allows companies to use either the cost model or the fair value model to evaluate investment properties subsequent to acquisition. Under the fair value model, investment properties are reported at fair value with corresponding changes in fair value recognized in profit or loss.

Unlike the valuation of financial assets, for which quoted prices are either available in active market or observable from comparable assets, the valuation of investment properties is more controversial and is subject to ongoing intense debate (Aboody et al., 1999; Lin & Peasnell, 2000). In most cases, active markets do not exist for investment properties. Instead, the fair value of investment properties is estimated based on

firm-generated inputs. Proponents of IAS 40's fair value model suggest that fair value provides users more timely and valuable information for making economic decisions. They argue that fair value provides a more complete representation of the underlying economic value (Eccher et al., 1996), and are less vulnerable to management manipulation (Barlev & Haddad, 2003; Hitz, 2007). On the other hand, critics of IAS 40's fair value model call attention to the lack of verifiable fair value information for most investment properties (Barth & Clinch, 1998). Critics argue that fair value estimates of investment properties are subject to greater estimation errors, more prone to management manipulation, and create an information asymmetry between investors and managers, which reduces the value relevance of reported accounting numbers (Penman, 2007; Ball, 2006; Benston, 2008; Song et al. 2010).

Instead of making yet another argument for or against IAS 40's fair value model, this study assesses empirically the value relevance of investment properties reported by Chinese companies that adopted IAS 40's fair value option. We choose Chinese companies for our study for three major reasons. First is the availability of data. Chinese Accounting Standards (CAS) and International Financial Reporting Standards (IFRS) substantially converged in 2007. Under the new CAS 3, which corresponds to IAS 40, Chinese companies are allowed, for the first time, to choose either the cost model or the fair value model to account for their investment properties. While only a small minority of firms (less than 5%) adopted the fair value model, we were able to identify 196 firm/year observations for our fair value sample from 2008 to 2013, allowing us to test the value relevance of investment properties. Second, Chinese companies provides an ideal setting for addressing critics' concerns regarding the reliability of fair value estimates. While there is little disagreement over the relevance of fair value information, the issue of whether fair value of investment properties can be reliably measured remains the heart of the debate. Given the large managerial discretion in estimating investment property's fair values and the lack of infrastructure to enforce securities regulations in China, concerns on measurement errors and intentional bias in implementing the fair value model are heightened in this setting. Finally, since the informational environment in China, where accounting plays more of a contracting role, is incompatible with that underlying IASB's conceptual framework (He et al, 2011), our results would shed light on the value relevance of fair value estimates in an incompatible informational environment.

This study assesses the value relevance of fair value estimates of investment properties under IAS 40 using a modified Ohlson (1995) model, which has been extensively used in the literature. Contrary to the popular belief that fair value is the most relevant measurement attribute, for the sample period of 2008 to 2013, the coefficient of fair value estimates of investment properties is 0.053, which is significantly less than its theoretical value of +1 and is not statistically different from zero, suggesting that reported fair values are not value relevant. Furthermore, investors adjust the valuation of fair value companies' non-investment property assets downward. Taken together, the findings do not support the claim that fair value is superior to historical cost for the valuation of investment property, and are consistent with the argument that investors are concerned about intrinsic measurement errors and management-induced bias in fair value estimates. Our results are robust to firm specific factors such as firm size and growth rate and are not sensitive to potential correlation across firms and over time in our panel data.

This study contributes to the IFRS literature. The widespread adoption of IFRS has stirred up numerous studies to examine the value relevance of IFRS-based financial statements. However, despite the on-going debate regarding IAS 40's fair value model, there is little direct evidence on the value relevance of fair value estimates of investment properties under IFRS. This study contributes to the literature in that it documents significant evidence regarding the value relevance of fair value estimates under IAS 40, "investment property." The findings don't support the argument that the fair value model produces more value relevant information than the cost model for the valuation of investment properties. Instead, the evidence is more consistent with critics' concerns regarding measurement errors, intentional bias, and the information asymmetry created by the fair value model. Our findings are consistent with Khurana and Kim (2003) who find that fair value measures of not actively traded loans and deposits were less informative than historical cost measures. They are also consistent with Song et al. (2010) who find fair value estimates based on firm-generated inputs (tier 3 estimates) of financial assets and liabilities in the banking industry are less value relevant than tier 1 and tier 2 fair value estimates. Finally, the findings are also consistent

with Pinto (2013), who found that Portuguese real estate fund managers chose the cost versus fair value model opportunistically. Given that many of IASB's constituents are developing economies, our findings regarding the lack of value relevance of fair value estimates in China, a major developing economy, have direct policy implications. Specifically, the findings highlight the need for more detailed implementation guidelines from IASB to improve the value relevance of investment properties under IAS 40's fair value model (Busso, 2014).

Our findings differ from some prior fair value studies of non-financial assets (e.g., Barth & Clinch, 1998; Dietrich et al., 2000). We attribute the difference to two significant differences in research settings. First, we examine the relevance of fair value estimates under IAS 40, whereas Barth and Clinch (1998) and Dietrich et al. (2000) studied fair value reporting under Australia and UK GAAP, respectively. It is worth noting that there is a critical difference between IAS 40 and the corresponding UK and Australia GAAP: changes in fair value are recognized in profit or loss under IFRS, whereas under the UK and Australia GAAP they were recognized as revaluation reserve in equity. Second, both the UK and Australia are developed economies and have a common law legal origin with high investor protection, while China is a developing economy and has a code law legal origin with low investor protection (Ball et al., 2003; Eccher & Healy, 2003; He et al, 2011). Prior studies suggest that accounting quality differs concerning stages of economic development, legal origins, and levels of investor protection (e.g., Street & Gray, 2001; Ball et al., 2003; Barth et al., 2012; Yip & Young, 2012). Future studies may investigate the value relevance of investment properties in more countries with different legal origins and levels of investor protection to shed further insight on how legal origin and level of investor protection affect the value relevance of fair value estimates under IAS 40.

The rest of the study is organized as follows. Section 2 discusses issues related to IAS 40's fair value controversy and develops the model. Section 3 describes sample selection and the data. Section 4 presents empirical tests and results. The last section summarizes and concludes the paper.

LITERATURE REVIEW AND MODEL DEVELOPMENT

Over the last two decades, both IASB and FASB have moved toward greater use of fair values in assets and liability measurement for financial reporting (Dichev, 2007). Under IAS 40, companies may use either the cost or fair value models to account for their investment properties. Fair value is defined as the amount for which the investment property can be exchanged between knowledgeable, willing parties in an arm's length transaction. Proponents of the fair value model argue that information under the cost model does not reflect current market conditions nor incorporate aspects of future values, and is therefore meaningless to investors. In contrast, the up-to-date information under the fair value model improves investors' and regulators' abilities to make informed decisions and, therefore, is the most relevant measurement attribute of investment properties (Hitz, 2007).

There is little disagreement regarding the relevance of fair value attributes when observable price exists in an active market. However, in most cases, there are no active markets for investment properties, and companies that adopt the fair value model often have to use estimates based on firm-generated inputs (tier 3 fair value estimates). Reliance on firm-generated inputs introduces both "intrinsic measurement errors" (noise) and "management-induced errors" (bias) into the reporting system (Song et al. 2010). Critics of IAS 40's fair value model argue that firm-generated inputs create an information asymmetry between investors and managers, which reduces the value relevance of reported accounting numbers (Penman, 2007; Landsman, 2007).

Rather than making yet another argument for or against the fair value model, this study empirically assesses the value relevance of fair value estimates of investment properties reported by Chinese companies under CAS 3, which corresponds to IAS 40 under converged Chinese Accounting Standards. Accounting information is considered value-relevant if it is reflected in share prices (Barth et al. 2001). Using the aforementioned approach, several studies find that fair values of financial assets of banks are value-relevant (Barth 1994; Petroni and Wahlen 1995; Barth et al. 1996; Eccher et al. 1996; Carroll et al. 2003). The evidence is mixed when actively traded market prices of financial assets and liabilities are unavailable

(Barth et al. 1996; Nelson 1996; Song et al. 2010). Despite the significant controversies surrounding IAS 40's fair value model, there is little direct evidence on the value relevance of fair value estimates of investment properties under IAS 40.

Following prior studies, we test the value relevance of fair value estimates of investment properties using a modified Ohlson (1995) model, which has been extensively used in the literature. Specifically, the following regression equation is used:

$$\frac{MVE_{i,t}}{NSO_{i,t}} = b_0 + b_1 \frac{INV_{i,t}}{NSO_{i,t}} + b_2 \frac{NINVA_{i,t}}{NSO_{i,t}} + b_3 \frac{LIAB_{i,t}}{NSO_{i,t}} + b_4 \frac{NI_{i,t}}{NSO_{i,t}} + e_{i,t} \quad (1)$$

where MVE is the market value of the firm's equity; INV is the reported investment properties; NINVA is the firm's total assets other than investment properties; LIAB is the firm's total liabilities; NI is the firm's net income; and NSO is the number of shares outstanding. We use NSO as the scaling factor to mitigate the heteroscedasticity problem of regression variables. We use a price model rather than a return model because our research question is to determine how investment properties' fair value is reflected in firm value, rather than how it is reflected in changes in firm value (Barth 2001; Song et al. 2010).

The theoretical values of the coefficient estimates of INV, NINVA, and LIAB, namely b_1, b_2, and b_3, are +1, +1, and –1, respectively (Landsman 1986; Song et al. 2010). Our primary focus is on the coefficient estimate of investment properties, b_1. If fair value estimates of investment properties are unbiased and reflect the underlying economic value of investment properties, as suggested by proponents of IAS 40's fair value model, the coefficient estimate of investment properties should be close to its theoretical value of +1. If, on the other hand, the subjective nature of fair value estimates of investment properties introduces both intrinsic measurement errors (noise) and management-induced errors (bias) into the financial reporting system, investors are expected to adjust reported investment properties downward in valuation. Consequently, critics would predict the coefficient of fair value estimates of investment properties to be significantly less than its theoretical value of +1. Given the fair value controversies discussed above, we make no prediction regarding the coefficient of investment properties and view it as an empirical issue.

Previous studies document intentional bias in management estimates when the measurement is highly subjective and managers have a high degree of discretion (e.g., Aboody et al. 2006; Bartov et al. 2007; Alaryan et al. 2014; Dong et al. 2020). Suppose investors are concerned with the intentional bias in fair value estimates of investment properties. In that case, they are likely to also adjust downward the valuation of fair value companies' non-investment property assets. Therefore, a significantly lower coefficient of investment properties is likely to be accompanied by a significantly lower coefficient for non-investment property assets.

SAMPLE SELECTION AND DATA

Our initial sample is obtained from the China Securities Market and Accounting (CSMAR) database. The sample period is from 2008 to 2013. Chinese companies were allowed to use fair value to evaluate investment properties in 2007 when Chinese Accounting Standards converged with IFRS. Our sample period starts in 2008 instead of 2007 to avoid issues associated with the transitional year. Prior to 2007, investment properties were not reported as a separate category. Therefore, data are not available for investment properties before 2007. Financial data and pricing data are collected from the CSMAR database. Fair value data are collected manually. After excluding firms that didn't report investment properties in the sample period, we divide the observations into the fair value model subsample and the cost (non-fair value) model subsample. We exclude insurance firms from the sample because they have special operating characteristics and are subject to special accounting rules and additional regulations. We also deleted observations from our non-fair value subsample if no fair value firms existed in the same industry. This procedure yields 196 firm/year observations for our fair value subsample, and 4,323 firm/year observations for our non-fair value subsample. Sample distribution by accounting model and year is reported in Table 1.

TABLE 1
SAMPLE DISTRIBUTION

Year	Fair Value Subsample	Non-Fair Value Subsample	Total
2008	20	575	
2009	26	608	
2010	26	649	
2011	30	758	
2012	44	829	
2013	50	904	
Total	196	4,232	4,428
(%)	(4.4%)	(95.6%)	

From Table 1, it is evident that even though companies are allowed to use either the cost model or the fair value model, the majority of companies (over 95%) choose the cost model. Only 5% selected the fair value model, which is consistent with prior studies on companies' choice between the two models in other countries (e.g., Devalle and Rizzito 2011; Christensen and Nikolaev 2013). In addition, fair value companies have lower sales growth rates and high debt to equity ratios, consistent with findings in prior studies (Hlaing and Pourjalali, 2012; Missonier-Piera, 2007).

Sample descriptive statistics of all regression variables for the fair value and non-fair value subsamples are presented in Panel A and Panel B of Table 2, respectively. To mitigate the influence of outliers, all regression variables in our final sample were winsorized at 1% and 99% levels. Though not reported, our conclusions are substantially the same when the variables were winsorized at 5% and 95% levels.

TABLE 2
SAMPLE DESCRIPTIVE STATISTICS*

Variable	Obs	Mean	SD	1% percentile	25% percentile	50% percentile	75% percentile	99% percentile
Panel A: Fair Value Subsample								
P	196	8.57	5.60	2.13	4.72	6.87	10.35	34.68
INV	196	1.56	4.90	0.00	0.11	0.52	1.57	11.37
NINVA	196	24.09	40.09	0.16	4.62	7.88	20.57	208.63
LIAB	196	21.33	38.28	0.52	2.79	4.87	19.17	199.17
NI	196	0.55	2.34	-0.93	0.07	0.25	0.67	2.03
INTANG	196	0.26	0.56	0.00	0.02	0.06	0.27	3.14
TA	196	23.83	40.12	0.13	4.42	7.85	20.14	208.57
SIZE	196	23.11	2.57	18.93	21.59	22.21	24.34	30.17
GROWTH	196	-1.10	17.93	-23.38	-0.63	0.12	0.42	12.50

Panel B: Non-Fair Value Subsample								
P	4323	10.94	9.02	2.01	5.52	8.42	13.24	45.29
INV	4323	0.26	0.62	0.00	0.02	0.07	0.25	3.05
NINVA	4323	11.20	21.47	1.04	4.70	7.60	12.03	59.36
LIAB	4323	7.23	19.81	0.17	1.82	3.74	7.51	48.85
NI	4323	0.39	0.62	-0.80	0.09	0.27	0.55	2.70
INTANG	4323	0.43	0.92	0.00	0.07	0.21	0.45	4.00
TA	4323	10.76	21.29	0.94	4.37	7.23	11.48	56.28
SIZE	4323	22.11	1.42	19.26	21.15	21.89	22.87	26.51
GROWTH	4323	0.09	21.66	-21.84	-0.45	0.05	0.39	15.59

where P is price per share; INV is investment properties; NINVA is total assets other than investment properties; LIAB is total liabilities; NI is net income; INTANG is intangible assets; TA is total assets other than investment property and intangible assets; SIZE is firm size; and GROWTH is sales growth rate.
* All variables are scaled by the number of shares outstanding (NSO).

EMPIRICAL TESTS AND RESULTS

Equation 1 is used to assess the value relevance of fair value estimates of investment properties under IAS 40. Consistent with the discussion in Section 2, if the coefficient of investment properties is close to its theoretical value of +1 for the fair value subsample, it would suggest that fair value estimates reflect the economic value of the underlying investment properties, and thus can be view as supporting evidence to IAS 40's fair value model. However, a coefficient greater than zero, but significantly less than its theoretical value of +1 would indicate that fair value estimates of investment properties are value relevant, but are discounted by investors. Finally, if the coefficient of investment properties under IAS 40's fair value model is not significantly different from zero, it would indicate that the fair value estimates are not value relevant, and would justify critics' concerns regarding the intrinsic measurement errors and intentional bias under the fair value model. The regression results using fixed effect model with standard error clustered by firm for the fair value subsample are reported in Table 3

TABLE 3
REGRESSION RESULTS – FAIR VALUE SUBSAMPLE [a]

Variable	*Predicted Sign*	*Coefficient Estimates*	*t-statistic*	*Level of Significance* [b]
Intercept	?	5.772	2.28	**
INV	+	0.053	0.08	
NINVA	+	0.700	1.72	*
LIAB	-	-0.732	-1.75	*
NI	+	0.789	0.62	
Adj R^2	0.791			
No. of observations	196			

[a] Fixed effect model was used with standard error clustered by firm
[b] *, **, *** denote significance levels of 0.1, 0.05, and 0.01, respectively

All coefficient estimates in Table 3 have the predicted signs. The four independent variables explained 79.1 percent of the cross-sectional variations in the market value of sample firms' equities. However, the coefficient of fair value estimates of investment properties is 0.053, which is significantly less than its theoretical value of +1, and is not statistically different from zero at 0.1 significance level. Furthermore, the

coefficient of fair value companies' non-investment property assets is 0.7, which is also significantly less than its theoretical value of +1 (significantly greater than zero though), suggesting that investors adjusted the valuation of non-investment property assets downward. The findings suggest that investors are concerned about the measurement errors and intentional bias in fair value estimates. Contrary to the popular belief that fair value is the most relevant measurement attribute, the results in Table 3 are more consistent with critics' argument that fair value estimates of investment properties are subject to greater measurement errors and are prone to management manipulation. This result is also consistent with Song et al. (2010) who find fair value estimates of financial assets and liabilities based on firm-generated inputs are less value relevant because fair value estimates based on firm-generated inputs create an information asymmetry between investors and managers, which further reduces the value relevance of the reported fair value estimates (Song et al. 2010).

Even though Chinese companies are allowed to use either the cost model or the fair value model to account for their investment properties under CAS 3, over 95% of them choose the cost model (see Table 1). To examine whether the fair value model produces more value-relevant information than the cost model, regression using Equation 1 is also performed for the non-fair value subsample. The regression results using a fixed effect model with standard error clustered by the firm for the non-fair value subsample are reported in Table 4.

TABLE 4
REGRESSION RESULTS – NON-FAIR VALUE SUBSAMPLE [a]

Variable	*Predicted Sign*	*Coefficient Estimates*	*t-statistic*	*Level of Significance* [b]
Intercept	?	4.787	5.42	***
INV	+	1.146	1.94	*
NINVA	+	1.134	5.05	***
LIAB	-	-1.126	-5.13	***
NI	+	2.918	4.79	***
Adj R^2		0.820		
No. of observations		4,323		

[a] Fixed effect model was used with standard error clustered by firm
[b] *, **, *** denote significance levels of 0.1, 0.05, and 0.01, respectively

Once again, all coefficient estimates in Table 4 have the predicted signs. The four independent variables explained 82 percent of the cross-sectional variations in the market value of equity of the non-fair value subsample. More importantly, the coefficient of investment properties of the non-fair value subsample is 1.146, which is significantly greater than zero, suggesting that the information under the cost model is value relevant. It is also significantly greater than its theoretical value of +1, indicating that reported investment properties under the cost model are understated. Furthermore, the coefficient of non-investment property assets of the non-fair value subsample is significantly greater than its theoretical value of +1 too, which is consistent with prior studies that historical costs generally understate economic values. The findings in Tables 3 and 4 don't support the claim that historical cost information is meaningless to investors. To the contrary, it appears that the cost model produces more value relevant information of investment properties than the fair value model for Chinese companies during the sample period.

Previous studies have found that intangible assets tend to be understated (or unrecorded in the case of internally generated goodwill). In addition, firm size and growth rate also tend to affect the company's valuation. To ascertain that understated intangible assets, firm size, and growth rate do not drive the results in Table 3, we added three additional independent variables, INTANG, SIZE, and GROWTH to our regression model. Specifically, the following regression equation is estimated:

$$\frac{MVE_{i,t}}{NSO_{i,t}} = b_0 + b_1 \frac{INV_{i,t}}{NSO_{i,t}} + b_2 \frac{INTANG_{i,t}}{NSO_{i,t}} + b_3 \frac{TA_{i,t}}{NSO_{i,t}} + b_4 \frac{LIAB_{i,t}}{NSO_{i,t}} + b_5 \frac{NI_{i,t}}{NSO_{i,t}} + b_6 SIZE_{i,t} + b_7 GROWTH_{i,t} + e_{i,t} \quad (2)$$

The regression results for the fair value subsample using Equation 2 are presented in Table 5. All seven independent variables have the predicted signs, and explain 79.3 percent of the variations in sample firms' equity. More importantly, the regression coefficient of investment properties, b_1, is 0.073, which remains significantly less than its theoretical value of +1 and is not statistically different from zero, suggesting that the results in Table 3 are not driven by omitted variables.

TABLE 5
REGRESSION RESULTS – FAIR VALUE SUBSAMPLE [a]

Variable	*Predicted Sign*	*Coefficient Estimates*	*t-statistic*	*Level of Significance* [b]
Intercept	?	25.771	0.54	
INV	+	0.073	0.10	
INTANG	+	1.375	1.78	*
TA	+	0.650	1.40	
LIAB	-	-0.675	-1.44	
NI	+	0.864	0.63	
SIZE	-	-0.867	-0.41	
GROWTH	+	0.018	0.45	
Adj R^2		0.793		
No. of observations		196		

[a] Fixed effect model was used with standard error clustered by firm
[b] *, **, *** denote significance levels of 0.1, 0.05, and 0.01, respectively

We also estimated Equation 2 for the non-fair value subsample. Table 4 shows that investment and non-investment property assets were understated under the cost model. We use Equation 2 to ascertain that the coefficient estimate of investment properties is not driven by understated (or unrecorded) intangible assets. The regression results are reported in Table 6. The results are similar to those reported in Table 4. Specifically, the coefficient of investment properties is even greater than that in Table 4 after controlling for potentially understated intangible assets, firm size, and growth rate. Thus, our results for the cost model subsample are unlikely driven by understated intangible assets, firm size, or growth rate either.

The regression results reported above are obtained using fixed effect model with standard error clustered by firm to produce more robust results. Our conclusions are unaltered using OLS regressions. One potential concern with the regression results is the high correlation between two independent variables, namely total assets other than investment properties (NINVA) and total liabilities (LIAB), which is a common issue for research studies using Ohlson's (1995) equity valuation model. One approach frequently used in the literature to mitigate the problem of multicollinearity due to the high correlation among independent variables is to discard some of the highly correlated independent variables. In the context of our research, a logical choice would be to use net assets (NA) (which equal NINVA minus LIAB) to replace these two highly correlated independent variables. Although not reported, our conclusions are unaltered using net assets instead of total assets and total liabilities in the regression equation. In addition, we also performed Petersen's two-way clustered analysis for all tests and obtained substantially similar results, suggesting that our results are robust to potential correlations across firms and over time in our panel data.

TABLE 6
REGRESSION RESULTS – NON-FAIR VALUE SUBSAMPLE [a]

Variable	*Predicted Sign*	*Coefficient Estimates*	*t-statistic*	*Level of Significance* [b]
Intercept	?	40.773	4.13	***
INV	+	1.201	1.99	**
INTANG	+	1.845	3.62	***
TA	+	1.232	5.44	***
LIAB	-	-1.328	-5.51	***
NI	+	2.981	4.68	***
SIZE	-	-1.639	-3.51	***
GROWTH	+	-0.004	-0.96	
Adj R^2		0.822		
No. of observations		4,323		

[a] Fixed effect model was used with standard error clustered by firm
[b] *, **, *** denote significance levels of 0.1, 0.05, and 0.01, respectively

Finally, all regression variables used in this study were scaled by the number of shares outstanding because previous studies suggest that this scaling factor performs the best in equity valuation model (Barth et al., 1996). To ascertain that the scaling factor does not drive the regression results, we also used Parker's model to mitigate the heteroscedasticity problem of regression variables (Park, 1966). While not reported, substantially similar results were obtained using Parker's data transformation procedure, indicating that the regression results of this study are not sensitive to the scaling factor.

CONCLUDING REMARKS

This study examines the relevance of fair value estimates of investment properties under IAS 40. Chinese companies have been allowed to use fair values to account for their investment properties since 2007 under CAS 3 when Chinese Accounting Standards converged with IFRS. We identified 196 firm/year observations in our fair value subsample from 2008 to 2013. Using a modified Ohlson (1995) model, we find that the fair value estimates of investment properties are not value relevant for our sample firms in the sample period. Furthermore, investors adjust the valuation of fair value companies' non-investment property assets downward. Our findings don't support the claim that fair value is the most relevant measurement attribute for investment properties. Instead, the findings are more consistent with critics that fair value estimates introduce intrinsic measurement errors and management-induced bias into the reporting system, and thus reduce the value relevance of accounting numbers.

Our analyses are based on data from Chinese companies. Future research may investigate the value relevance of investment properties in additional countries with different legal origins and levels of investor protection. Such studies can shed further insight on the relationship between the level of investor protection and the value relevance of investment properties.

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