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Full Length Research Paper

Value relevance of financial assets' fair values: Evidence from Chinese listed companies

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The primary objective of this paper is to examine the value-relevance of financial assets' fair values using data from all A-share listed companies in non-financial industries during 2004 to 2009 in China under IFRS-based new China Accounting Standards (CAS). We find that value-relevance of financial instruments is improved following the implementation of the fair value accounting standards, as predicted. Specifically, the change in fair values of financial assets held for trading, financial assets available-for-sale, or the sum of the two financial assets have incremental explanatory power over stock returns to their historical costs.

Key words: Fair value, financial instrument, value-relevance, IFRS-based China Accounting Standards (CAS).

INTRODUCTION

Increased market globalization and integration of economic activities has created demand for international convergence in financial reporting (Ball, 2006). Over the past decade, at least 110 countries all over the world adopted International Financial Reporting Standards (hereafter IFRS) as their official accounting standards and improved their accounting quality (Barth et al., 2008). To converge with IFRS, China issued IFRS-based new China accounting standard (therefore CAS) in 2006, effective in January 1, 2007. Like IFRS, the prominent characteristics of CAS are that over half of 38 accounting standards comprising the set of IFRS-based CAS involve use of fair values. In this paper, we examine whether value relevance of fair value information of financial instruments is enhanced following the adoption of the new IFRS-based CAS.

The motivation for this paper stems from the argument that a country's institutional and market setting can significantly shape its financial reporting. The choice between fair value and historical cost involves a cost-benefit tradeoff. On one hand, fair value provides more *relevant* information to investors in their capital allocation decisions (Barth and Clinch, 1998; Schipper, 2008). On the other hand, historical cost provides more reliable information to investors. The recent IFRS' move towards fair value suggests that regulators and standard setters consider the more efficient solution to asset measurement has shifted towards the relevance side of the tradeoff. In other words, the relevance benefits of fair value are expected to outweigh the cost of lower reliability, in particular, financial instruments.

Recent academic studies provide supporting evidence that the fair values of cumulative financial instruments are value relevant (Ahmed et al., 2006) and the fair value gains and losses are positively associated with contemporary stock prices (Bhat, 2008). However, like other emerging markets, China's market and institutional setting are different from those in mature market such as US and Europe. In addition, prior studies find that the underlying market and institutional factors in an economy can significantly shape financial reporting incentives and accounting properties (Ball et al., 2003; La Porta et al., 1999). Therefore, prior findings on value relevance of fair value of financial assets can not necessarily be generalized to China's setting. We base our analyses on the China capital market for the following reasons. First, as mentioned above, prior studies on value relevance of fair value of financial instruments focus primarily on mature market, such as US and Europe. However, a country's institutional background may shape his

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accounting standards. Therefore, China provides an excellent setting to examine value relevance of financial instruments in merging market, compared to the mature market such as US. Second, China is the one of the largest economic entity or country, whose capital market recently attract attention from all over the world. As a consequence, whether the implementation of FIRS-based CAS, in particular, fair values of financial instruments, enhances the value relevance of financial reporting will be a critical question to investors and potential investors all over the world.

In this paper, we address two issues. First, whether the fair value information of financial assets is more relevant in explaining equity stock after the adoption of the new IFRS-based CAS; second, whether fair value gains and losses are positively associated with contemporary stock returns. To test our hypotheses, we use both price and return models. Using a sample of A shares in China, we find that the value-relevance of the fair values of financial instruments is improved subsequent to the adoption of the new IFRS-based accounting standards in China. Second, we further find that the fair values of financial instruments held for transaction and financial assets available-for-sale have value-relevance with stock prices after adoption of new IFRS-based accounting standards in China. Finally, we find that the annual change in fair values of financial instruments is positively associated with contemporary stock returns after the adoption of the new IFRS-based accounting standards in China.

This paper contributes to the literature in several ways. First, the empirical results provide supporting evidence that new accounting treatment for financial assets in China can increase the transparency of derivative financial instruments, and in turn transparency of listed firms. Second, prior studies on value-relevance of fair values of financial assets focus primarily on the market in the United States or Europe. However, a country's market can shape its financial reporting properties, the effects of new IFRS-based CAS adoption in emerging markets, namely China, may differ from those in mature markets. In this paper, we provide evidence that the fair values of financial assets have incremental explanatory power over book value return subsequent to adoption of new IFRS-based CAS.

Finally, our paper is different from two concurrent papers on financial assets by Xu (2008) and Zhao and Wang (2009). Both papers find very weak and no evidence of value-relevance of financial assets. The primary reason for very weak or no evidence is that when new CAS is effective in 2007, both papers use a sample for 2007 alone as observations under new rules, which are very noisy. In contrast, based on a sample during 2004 to 2009, we find the strong evidence of value-relevance of fair values of financial assets, as predicted. In addition, we use the ERC model, price model, and Re-turn models at the same time to examine our hypotheses, which overcome the omitted variables issues.

However, a country's market can shape its financial reporting properties, the effects of new IFRS-based CAS adoption in emerging markets, such as China, may differ from those in mature markets. In this paper, we provide evidence that the fair values of financial assets have incremental explanatory power over book value return subsequent to adoption of new IFRS-based CAS.

LITERATURE AND HYPOTHESES

The Financial Accounting Standards Board (FASB) has mandated several accounting standards that require use of fair values. The academic research relating to fair values focuses primarily on value relevance of fair values. The prior literature on value-relevance of fair values of financial instruments tends to use a traditional regression approach and examine whether the fair value information mandated by the accounting standards provides incremental explanatory power over stock prices or returns over traditional financial statement items.

The extant evidence indicates that that fair value information of investment securities and loans are value relevant, but not after controlling for growth, profitability, and historical costs etc. (Barth, 1994; Petroni and Wahlen, 1995; Barth et al., 1996; Eccher et al., 1996; Nelson, 1996; Park, 2004; Park et al., 1999; Khurana and Kim, 2003). The mixed results are driven, to some degree, by measurement error and omission of correlated unrealized gains and losses on other assets and liabilities (Ahmed and Takeda, 1995; Park et al., 1999).

Regarding the value relevance of the fair values of loans, the empirical results are mixed. For example, Barth et al. (1996) document that fair value information of loans has incremental power in explaining equity stock; in contrast, Nelson (1996) does not find the same evidence. Other papers find evidence of incremental information relating to fair values of loans only in specific settings (Eccher et al., 1996; Nissim, 2003). While prior studies on fair value disclosures of derivatives generally find that the disclosures are mixed or are not value relevant, Venkatachalam (1996) finds that banks' derivative fair value disclosures are value-relevant. Compared to these papers, Bhat (2008) uses variance decomposition analysis to examine the variance contribution of fair value gains and losses relative to net income in driving stock returns. They find that fair value gains and losses are significant in explaining the volatility of unexpected returns and that relative importance of fair value gains and losses to net income is an increasing function of disclosure.

Using a sample of banks that both hold recognized and disclosed derivative prior SFAS No. 133, Ahmed et al. (2006) found that the valuation coefficients on disclosed derivatives are not significant, while the valuation coefficient on recognized derivatives are significant. Therefore, Ahmed et al. (2006) argue that SFAS No. 33

has increased the transparency of derivative financial instruments.

Overall, recent papers on fair values of financial instruments document that fair value information of financial assets have significant value-relevance. The Financial Accounting Standards Board argues that the fair value information of financial instruments provide more useful information to users in making rational decisions. New CAS in 2007 requires all financial assets held for transaction and those available for sale to be recognized at fair value on the balance sheet as assets. In contrast, prior to this new CAS, firms are only required to report short investment at historical or the lower of cost and market price on balance sheet. Based on the FASB argument, in conjunction with these findings, we establish the following hypotheses:

H_1: The value-relevance of the fair values of financial instruments is enhanced after the adoption of the new IFRS-based accounting standards in China.

H_2: The fair values of financial instruments held for transaction and financial assets available-for-sale have value-relevance with stock prices after adoption of new IFRS-based accounting standards in China.

H_3: The annual change in fair values of financial instruments is positively associated with contemporary stock returns after the adoption of the new IFRS-based accounting standards in China.

RESEARCH DESIGNS

Models

In this paper, following Watts and Zimmerman (1986), Chambers et al. (2007) and Zhou (2009), we use the ERC models to test our first hypotheses. Specifically, we regress stock return on variables of interests, such as notional and other control variables. We estimate the following cross-sectional regression:

$$R = a_0 + a_1 * EPS + a_2 * LOSS + a_3 * AFTER + a_4 * EPS * LOSS + a_5 * EPS * AFTER + a_6 * NOTIONAL + a_7 * NOTIONAL * AFTER + a_8 * EPS * AFTER * NOTIONAL + u \quad (1)$$

Where *R* is the firm's annual stock return cumulated from eight months before fiscal t year end through three months after it. *EPS* is the earnings per share. We include loss since loss firms have different earnings response coefficient from profitable firms (Hyan, 1995). LOSS is an indicator variable equal to one if firms have net loss, zero otherwise. AFTER is an indicator variable which takes value of one if observations are obtained from 2007 to 2009, zero otherwise. NOTIONAL denotes net short investment on balance sheet carried on historical costs for firms during 2004 to 2007, while it denotes financial instruments, as measured by the sum of fair values of financial assets held for transaction and financial assets available-for-sale divided by the number of outstanding shares, for firms during 2007 to 2009. To be consistent with our hypothesis, the coefficient of interaction item, EPS*AFTER*NOTIONAl, is expected to be positive.

To test our second and third hypotheses, we use the price and return models. In other words, to examine the value relevance of the cumulative financial instruments on balance sheet (financial assets held for transaction and financial assets available-for-sale), we firstly use the following regression:

$$P = a_0 + a_1 * TS + a_2 * AFS + a_3 * NAS + a_4 * EPS + u \quad (2)$$

Where P is firm's stock price fourth months after fiscal year-end, EPS is reported annual earrings per share, TS denotes the fair values of financial assets held for transaction, scaled by total capital; AFS denotes the fair values of financial assets available-for-sale, scaled by total capital; NAS is the book value of equity per share minus fair values of financial assets held for transaction and financial assets available-for-sale. If investors value the cumulative amount of financial assets, we expect a_1 and $a_2 > 0$.

We further use the following price model to examine the value-relevance of change in fair values of financial assets:

$$P = a_0 + a_1 * BV + a_2 * FVA + a_3 * EBV + a_4 * SIZE + a_5 * YEAR_{07} + a_6 * YEAR_{08} + a_7 * YEAR_{09} + u \quad (3)$$

Where *BV* is the book value of equity per share, *FVA* is the change in fair values of financial instruments scaled by total capital; *EBV* is earnings per share minus the change in fair values of financial instrument (*FVA*). Size denotes firm size, measured by the log of net assets. $YEAR_t$ is dummy variable for year t. To be consistent with our predictions, we expect a_2 and $a_3 > 0$.

Finally, because the return model specification is less subject to omitted variables bias, we also use the following model to test our hypotheses (3). The results based on this specification thus are more robust and allows stronger inferences to make about the value-relevance of fair values of financial assets:

$$R = a_0 + a_1 * FVA / P + a_2 * EBV / P + a_3 * \Delta EPS / P + a_4 * SIZE + u \quad (4)$$

Where Δ*EPS* is the annual change in earnings per share. All other variables are as defined previously. We expect a_1 and $a_2 > 0$.

Sample selection

Our original sample is obtained from China Securities Markets and Accounting Research (CSMAR) database. Our sample comprises all A-share listed companies in non-financial industries during 2004 to 2009. We exclude firms whose accounting data are not available; specifically, observations are deleted from sample due to the lack of data on fair values of financial assets held for trading or financial assets available-for-sale. We further delete firm-year observations without sufficient financial data and firms with negative net assets.

Finally, we delete financial institutions because of their dissimilar nature to other industries and a smaller size of sample. The selection procedure yields 453 firms.

Table 1. Descriptive statistic.

Parameter	2004 to 2006 (N=1,356)					2007 to 2009 (N=1,341)				
	Mean	Median	Max	Min	S.D.	Mean	Median	Max	Min	S.D.
R	0.220	-0.011	5.669	-0.867	0.707	0.965	1.061	7.508	-0.866	1.389
P	5.946	4.705	39.100	1.120	4.268	12.264	9.460	81.770	1.810	10.175
EPS	0.115	0.125	2.370	-14.080	0.606	0.231	0.169	3.470	-2.860	0.459
Notional	0.056	0.004	1.352	0.000	0.143	0.330	0.018	24.701	0.000	1.398

R is the firm's annual stock return, cumulated from eight months before fiscal t year-end through three months after it. P is firm's stock price fourth months after fiscal year-end. EPS is reported annual earnings per share. Notional denotes net short investment on balance sheet carried on historical costs for firms during 2004 to 2007, while it denotes financial instruments, as measured by the sum of fair values of financial assets held for transaction and financial assets financial assets available-for-sale divided by the number of outstanding shares, for firms during 2007 to 2009.

RESULTS

Descriptive statistics

Table 1 presents the descriptive statistics for variables of interest in our regressions. As shown in Table 1, the mean and median values of stock return (R), stock (P), earnings per share (EPS), and investment in financial instruments (notional), are all significantly higher for sample following the adoption of new CAS than those for sample prior to the adoption of CAS. For example, the mean value of investment in financial instruments dramatically increases from 0.056 during 2004 to 2006, to 0.3296 during 2007 to 2009. This indicates that, on average, investment in financial instruments carried at historical cost typically are underestimated under old accounting standards in China, compared to that under new CAS. In addition, it also seems that the relatively greater mean stock return after the adoption of new accounting standards indicates that market investors positively assess the adoption of new accounting standards in 2007.

Since our second and third hypotheses are based on the sample during 2007 to 2009, we present the descriptive statistics in Table 2. Table 2 reveals that the mean value of fair values of financial assets held for transaction significantly decline from 0.0426 in 2007 to 0.0254 in 2009; likewise, the mean value of fair values of financial assets available-for-sale dramatically decline from 0.4859 in 2007 to 0.1331 in 2008, and then increase to 0.2876 in 2009. These results is consistent with the financial tsunami of 2007 to 2008 adversely affects stock market in China. During financial tsunami period, listed firms in China tend to re-classify financial assets held for transaction as financial assets available-for-sale in an attempt to avoid earnings fluctuation arising from dramatic change in their fair values. The mean values of the annual change in fair values of financial assets range from 0.0105 to -0.015. The mean values of $\triangle EPS$ are greater for years 2007 and 2009, while it is negative for year 2008, in line with overall economic environment in China.

H_1: The regression results for return model

Table 3 presents the empirical results of regression (1) using return model. Consistent with prior studies, the coefficient of EPS is positive and significant, indicating that return is positively associated earnings level. However, contrary to prior studies documenting that earning coefficient response is smaller for loss firms than profit firms since earnings of loss firms is less persistent; the coefficient of the interaction between EPS and LOSS is negative and significant. The plausible reason of the inconsistence is that capital market is much less mature in the China than in the United States. As a consequence, the earnings management, in particular, upward earnings management, is much more pervasive and the quality of earnings is much lower for firms in China than for firms in the US. In such a case, earnings quality for loss firms thus is perceived to be higher than those for profit firms in China, and in turn, the earnings response coefficient is higher for loss firms relative to profit firms in China.

Surprisingly, the coefficient of EPS*AFTER is negative in the sense that earnings quality under the new IFRS-based China Accounting Standards (CAS) is significantly lower than that under old CAS. The possible reason is that managers have greater judgment and discretion over earnings under new IFRS-based CAS than that under old CAS, so investors perceive earnings quality to be lower after implementation of under old CAS.

Turning to variable of interest, consistent with our hypothesis 1, the coefficient of EPS*AFTER*NOTIONAL is positive and significant at 3% level, suggesting that earnings explanatory power over return increases with the amount of NOTIONAL following implementation of new IFRS-based CAS.

In summary, given that capital market is less mature in China, although earnings are positively associated with firm' return, its explanatory power is, on average, lower in China. In addition, we find that earnings explanatory power over return decline under new IFRS-based CAS. This is consistent with prior studies documenting positive IFRS adoption effects in mature markets. Since a

Table 2. Descriptive statistics for years 2007 to 2009.

	Mean	Median	Max	Min	S.E.
Year 2007 (N=440)					
TS	0.043	0.000	1.536	0.000	0.141
AFS	0.486	0.003	24.701	0.000	2.006
NAS	2.705	2.535	12.476	-3.156	1.635
BV	3.234	2.810	23.940	-0.335	2.319
FVA	0.011	0.000	0.571	-0.061	0.049
EBV	0.289	0.210	3.462	-1.880	0.457
SIZE	20.710	20.632	25.188	13.854	1.120
∆EPS	0.118	0.064	2.854	-1.659	0.366
Year 2008 (N=440)					
TS	0.025	0.000	1.647	0.000	0.104
AFS	0.133	0.000	9.757	0.000	0.562
NAS	2.698	2.535	12.476	-3.156	1.650
BV	2.779	2.590	10.610	0.010	1.523
FVA	-0.015	0.000	0.238	-0.889	0.064
EBV	0.178	0.130	2.168	-2.300	0.428
SIZE	20.947	20.860	25.307	17.797	1.132
∆EPS	-0.139	-0.078	2.062	-2.080	0.455
Year 2009 (N=441)					
TS	0.025	0.000	1.279	0.000	0.090
AFS	0.288	0.000	20.276	0.000	1.216
NAS	2.707	2.486	11.664	-1.826	1.601
BV	3.020	2.720	18.450	0.000	1.876
FVA	0.010	0.000	0.776	-0.196	0.056
EBV	0.246	0.167	2.692	-1.844	0.421
SIZE	21.074	21.005	25.341	18.109	1.166
∆EPS	0.102	0.040	3.110	-1.646	0.443

TS denote the fair values of financial assets held for transaction, scaled by total capital. AFS denotes the fair values of financial assets available-for-sale, measured by total capital. *NAS* is the book value of equity per share minus fair value of financial assets held for transaction and financial assets available-for-sale. BV is the book value of equity per share. FVA is the change in fair values of financial instruments scaled by total capital. EBV is earnings per share minus the change in fair values of financial instrument, FVA. Size denotes firm size, measured by the log of net assets. $Year_t$ is dummy variable for year t. ∆EPS is the annual change in earnings per share.

country's market can shape its financial reporting properties, the effects of new IFRS-based CAS adoption in emerging markets, namely China, may differ from those in mature markets. However, more importantly, we find consistent and supporting evidence that earnings explanatory power over return increases with the amount of NOTIONAL following implementation of new IFRS-based CAS. The results indicate that relative to historical values of financial instruments, fair values of financial instruments play an important and critical role in assessing firm's values in China after 2007.

H_2: The empirical results: Price model

Table 3 indicates that compared to historical cost of those assets, fair values of total financial instruments are more relevant after implementation of new IFRS-base CAS. In this section, we divide the financial instruments into financial assets held for trading and financial assets available-for-sale and explore which financial assets the results in Table 3 are mainly driven by. To test our second hypothesis, we employ the equation model (2): Price model. The results are presented in Table 4.

As revealed in Table 4, in line with prior studies, the coefficient of *TS* is positive and significant at traditional level, indicating that earnings are value-relevant. More importantly, the coefficients of all proxies for financial instruments, TS, AFS, and NAS, have predicted sign and are significant at one percent level, consistent with our second hypothesis. The results reveal that fair values of financial instruments are value-relevant, regarding of

Table 3. Fair value of financial instrument and return: Return model.

Variable	Predicted sign	Coefficient	t-statistic
Intercept	?	-0.1609	-3.221***
EPS	+	0.0661	1.760*
NOTIONAL	+	0.1128	0.876
LOSS	+	0.0615	1.257
EPS*LOSS	+	0.5235	7.364***
AFTER	?	0.0371	1.258
EPS*AFTER	?	-0.2673	-4.238***
NOTIONAL*AFTER	?	-0.0944	-0.723
EPS*AFTER*NOTIONAL	+	0.0646	2.159**
Adjusted R^2		0.0534	
F-statistic		19.997***	
Durbin-Watson stat		1.9914	
N		2,694	

R is the firm's annual stock return, cumulated from eight months before fiscal t year-end through three months after it. EPS is reported annual earnings per share. Loss is an indicator variable equal to one if firms have net loss, zero otherwise. After is an indicator variable which takes value of one if observations are obtained from 2007 to 2009, zero otherwise. *Size* denotes firm size, measured by the log of net assets. $YEAR_t$ is dummy variable for year t. Notional denotes net short investment on balance sheet carried on historical costs for firms during 2004 - 2007, while it denotes financial instruments, as measured by the sum of fair values of financial assets held for transaction and financial assets financial assets available-for-sale divided by the number of outstanding shares, for firms during 2007 to 2009. Asterisks denote significance levels: *** 1; ** 5, and* 10%.

Table 4. Fair values of components of financial instrument and price: Price model.

Variable	Predicted sign	Coefficient	t-statistic
Intercept	?	5.5345	12.545***
TS	+	9.5923	4.939***
AFS	+	1.1583	7.214***
NSA	+	1.5351	9.195***
EPS	+	8.9826	14.981***
Adjusted R^2		0.4033	
F-statistic		227.3861***	
Durbin-Watson stat		1.5715	
N		1,333	

P is firm's stock price fourth months after fiscal year-end. *EPS* is reported annual earnings per share. *TS* denote the fair values of financial assets held for transaction, scaled by total capital. *AFS* denotes the fair values of financial assets available-for-sale, scaled by total capital. *NAS* is the book value of equity per share minus fair value of financial assets held for transaction and financial assets available-for-sale. *P* is firm's stock price fourth months after fiscal year-end. Asterisks denote significance levels: *** 1; ** 5, and * 10%.

financial assets held for trading, financial assets available-for-sale, or the sum of the two financial assets.

Further F-test indicate that the coefficient of TS is significantly larger than either that of AFS or NAS, in the sense that the fair values of financial assets held for trading is more associated with those of financial assets available-for-sale and the sum of financial assets held for trading and financial assets available-for-sale. The results are consistent with the perception that financial assets held for trading are traded more frequently and their fair values are more timing and relevant.

In summary, fair values of financial instruments, as indicated in financial statement, have value-relevance under new IFRS-based CAS, irrespective of financial assets held for trading, financial assets available-for-sale, or the sum of the two financial assets.

H3: The empirical results

Price model

To test hypothesis three that change in financial assets'

Table 5. The value-relevance of change in fair value of financial assets: Price model.

Variable	Predicted sign	Coefficient	t-statistic
Intercept	?	16.3547	7.649***
BV	+	1.5506	22.279***
FVA	+	18.8680	7.261***
EBV	+	9.6607	25.558***
SIZE	+	-0.7154	-6.737***
Year07	+	8.2060	26.289***
Year08	-	-0.9321	-3.063***
Year09	+	4.5762	14.785***
Adjusted R^2		0.5986	
F-statistic		569.1154***	
Durbin-Watson stat		1.9776	
N		1,332	

P is firm's stock price fourth months after fiscal year-end. BV is the book value of equity per share, FVA is the change in fair values of financial instruments scaled by total capital. EBV is earnings per share minus the change in fair values of financial instrument, FVA. SIZE denotes firm size, measured by the log of net assets. $Year_t$ is dummy variable for year t. Asterisks denote significance levels: *** 1; ** 5, and * 10%.

fair values showed in income statement are value-relevant, we run a regression of stock price on change in financial assets' fair values and other control variables. The results are shown in Table 5. Table 5 shows that, consistent with prior studies, the coefficients of *BV* and EBV have predicted sign and significant at traditional levels. Regarding variable of interest, we find that the coefficient of *FVA* is positive (coefficient = 2.598) and significant (p=7.271%), indicating that change in financial assets' fair values, FVA, is positively associated with stock prices and thus provide value-relevant information to investors. This is consistent with our hypothesis three.

F-value further indicates that the coefficient of FVA is significantly larger than that of EBV, suggesting that investors give a larger premium to change in financial assets' fair values, compared to other earnings. The possible reason for larger premium on FVA is that investors place a relatively greater emphasis on change in financial assets' fair values immediately following the enactment of new IFRS-based CAS. In addition, F-value further reveals that the coefficient of BV is smaller and statistically significant than that of either FVA or EBV in the sense that investors put greater premium on earnings-related component when assessing firm values, compared to book value of balance sheet immediately after implementation of new FIRS-based CAS. Table 5 also indicates that the coefficients of years 2007 and 2009 are significant positive and the coefficient of year 2008 is significant negative, in line with the market overall trend in China.

To summarize, the results in Table 4 in conjunction with that in Table 3 indicate that fair values of financial assets prove value-relevant information to market investors regardless of it being shown in balance sheet or income statement.

Return model

To test the third hypothesis, we also employ return model, as opposed to the price model. Specifically, we regress firm' stock return on the annual change in fair values of financial assets and other control variables. The association between unexpected fair values of financial assets and contemporaneous annual stock returns indicates the extent to which the information contained in financial assets is consistent with that used by investors. Table 6 presents the results for estimating equation (6).

It can be seen from Table 6 that the coefficient of annual change in fair values of financial assets, AFV/P, has expected sign and is highly statistically significant. The results provide strongly supporting evidence for hypothesis 3. In addition, F-test further indicates that the estimated coefficient of FVA/P is significantly greater than ΔEPS, suggesting that investors give greater premium to change in fair values of financial assets, compared to other earnings. In other words, regardless of whether it is realized, the fair values of financial assets have higher value-relevance than other realized income based on historical cost principles.

Sensitivity analyses

To ensure robustness of our primary results, we perform several sensitivity analyses. First, we replace earnings per share with operating profit per share in regression (3) and re-run regression (3). The primary results remain qualitatively unchanged. Second, in his papers which delete firm size in regression, Deng (2005) does not find the supporting evidence of the value-relevance of financial assets. In contrast, after including firm size as

Table 6. The value-relevance of fair values of financial assets: Return model.

Variable	Predicted sign	Coefficient	t-statistic
Intercept	?	1.8219	2.561***
FVA/P	+	14.0286	2.439***
EBV/P	+	-3.3327	-3.550***
ΔEPS/P	+	5.5180	8.440***
SIZE	-	-0.0372	-1.086
Adjusted R^2		0.0802	
F-statistic		29.700***	
Durbin-Watson stat		0.9230	
N		1,338	

R is the firm's annual stock return, cumulated from eight months before fiscal t year-end through three months after it. P is firm's stock price fourth months after fiscal year-end. FVA is the change in fair values of financial instruments scaled by total capital. EBV is earnings per share minus the change in fair values of financial instrument, FVA. Size denotes firm size, measured by the log of net assets. ΔEPS is the annual change in earnings per share. Asterisks denote significance levels: *** 1; ** 5, and * 10%.

another control variable, we find the stronger association between stock prices (or stock returns) and fair values (or change in fair values). Thus, insignificant value-relevance of the fair values of financial assets in the paper by Deng (2005) is driven mainly by the exclusion of an important control variable, namely, firm size.

Conclusion

The primary objective of this paper is to examine value relevance of fair values of financial instruments under the new IFRS-based CAS. Using a sample of listed firm issuing A share in China during 2004 to 2009, we find that the value-relevance of the fair values of financial instruments is enhanced after the adoption of the new IFRS-based accounting standards in China. In other words, financial assets recognized at fair value on balance sheet under new IFRS-based CAS are more value relevant than are those reported at historical costs under old CAS.

Secondly, the empirical results also indicate that fair values of financial instruments held for transaction and financial assets available-for-sale have value-relevance with stock prices, respectively, after adoption of new IFRS-based accounting standards in China. Finally, we find that the annual change in fair values (for example, fair value gains and losses) of financial instruments is positively associated with contemporary stock returns after the adoption of the new IFRS-based accounting standards in China.

Overall, our findings in China are consistent with those in mature market such as U.S. Therefore, the China's market and institutional settings do not yet significantly and adversely affect accounting standards.

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