

# FAIR VALUE ACCOUNTING AND VALUATION OF NON-FINANCIAL ASSETS: A STUDY OF IMPACT OF IFRS ADOPTION

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**Abstract** *This paper tries to examine the degree of adaptability of the Fair Value concept, as codified in the International Financial Reporting Standards (IFRSs), in Indian Accounting Standards. Indian Accounting Standards are the official set of corporate financial reporting standards of India, a major emerging economy on the world map. Researchers examine whether and why companies preferred fair value to historical cost and what extent they choose between the two valuation methods. Except for property investment owned by real estate companies, historical price by far dominates fair value in practice. Indeed, proper value accounting is not mandatory for the plant, equipment, and intangible assets. The study includes the valuation methods for arguably the most controversial (non-financial) asset group: Property Plant and Equipment (PPE) and Property investment. For this, researchers have selected India's top twenty real estate companies and examined companies' incentives to choose fair value over historical cost by analyzing cross-sectional variation in valuation practices after IFRS adoption. In this research logistic regression model have been used to the probability that a given company will apply fair value as a function of company-specific characteristics. Researchers match each fair value of the company with historical cost companies, which are based on market capitalization in the stock market and the log of the market value of equity. It is found that companies using fair value accounting rely more on debt financing than companies that use historical cost. The evidence is consistent with companies using fair value to signal asset liquidation values to their creditors. It is not compatible with equity investors demanding fair value accounting for non-financial assets.*

**Keywords:** *Fair Value Accounting, IFRS, Historical Cost, Non-Financial Assets*

**JEL Classification:** *O34, C21, C12, C23*

## INTRODUCTION

An accountant plays a vital role in the accounting measurement process when evaluating the assets and liabilities in the preparation of financial statements of the corporate sector. Thus, the choice of accounting measurement method is reflected in the four financial statement processes (income statement, balance sheet, cash flow statement, and statement of change in equity). It means that they follow the appropriate method during the assets and liabilities measurement process.

In today's business environment as a volatile and changing environment, the measurement of assets and liabilities on fair value accounting provides greater transparency and appropriateness compared to historical cost. The proper value measurement gives a lot of the relevant information to the investors, which helps them in making appropriate investment decisions. It has to be when providing accounting

information to visualize the information and the reality of the corporate sector financially relevant and reliable.

The measurement process seeks the protection of investors in the corporate market and the creation of calls that are fair and transparent.

The financial statements are prepared following fair value accounting, providing a significant benefit to investors. Investors are looking at financial information from a broad global investment perspective. For this reason, it is essential to use acceptable accounting standards which are generally accepted by the international level and provide full transparency on an equal level. It is a crucial tool for attracting investment too. Accounting measurement using fair value requires coping up with the needs of users of financial statements in a globalized era. The accounting information quality is the characteristics that must be provided by the financial information. Without this, it loses value of financial data and divides accounting information

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properties to the main features of these (comparability and consistency) and the secondary properties (convenience and reliability). The International Accounting Standards Board (IASB) is moving forward with rules that increase the use of fair value measurements.

The concept of Fair Value Accounting (FVA) has emerged as a limitation for historical cost accounting, major corporate collapse and tremendous pressures from users of financial reports. Users of financial statements have taken fair value. Fair value has been taken very seriously around the world since its potential high relevance. India has widely introduced the measurement attributes to the new measurement methods. The demands for fair value could be imputed as it attributes to the new measurement methods. Accounting for assets and liabilities at market prices can produce results that sometimes dramatically change the underlying dynamics for individual businesses and activities, particularly during volatile economic market conditions prevailing in India. The concept of FVA has emerged to cover the gap, existing in the historical cost accounting in India.

As per the importance of fair value accounting in the current scenario, the researchers in this study have to shed light on the reality of the application of proper value accounting. Also, the impact on the qualitative characteristics of the quality of financial statements of the Indian corporate sector. The study focuses on valuation practices for arguably the most contentious (non-financial) assets group: property, plant and equipment (PPE), property investment and intangibles. Indeed, under IFRS, both fair value and historical cost are allowed for PPE and property investment and if an active market exists for intangibles. The free choice under IFRS allows managers outside stakeholders to reveal preference concerning valuations practices. To better understand whether it will be shown by the reflected market demand and supply forces, Researchers analyze the observed choices from an economic cost-benefit perspective test several cross-sectional predictions focusing on the cost benefits tradeoffs between the two valuation practices. First, we expect the local financial, governance and legal, institutional influence on the market solution in a predictable manner. Secondly, as reliability is the principal dimension on which historical cost arguably dominates fair value, the prices of constructing reliable, reasonable value estimates are expected to be vital cross-sectional determinants of choice between the two accounting practices. We predict that fair value accounting is more likely chosen for the property than other non-financial assets because property markets are generally more liquid. Our third prediction is that managers are more likely to adopt fair value when it facilitates performance measurements.

- Value changes in property investment are informative of operating performance when capital gains are part of the business model. Thus, we expect the use of fair value among firms that hold property investment.

- Fair value adversely affects key performance measures (ex.ROA) if the management chooses to completely unproductive assets (assets with high value in alternative uses) and thus can benefit in governing firms lacking investment opportunities.
- Finally, it is expected that reliance on debt financing is influencing the choice of fair value. However, the direction of this relationship is unclear on the one hand; debt holders can demand a greater degree of variability. Still, on the other hand, they also require estimates of the value of the collateral.

## REVIEW OF LITERATURE

This paper discussed the contracting issue that pertains to fair value accounting. A range of opinions exists about the appropriate use of proper value accounting. Most of the existing non-financial assets revaluations document a positive market reaction to assets. These studies generally conclude that fair value estimates are value relevant. The summary of previous studies would also be useful to understand the growth difficulties arising in the adoption of proper value accounting.

(Abhishek & Divyashree, 2019) analyzed the perception of users of financial statements from financial analysts and investors towards the adoption of International Financial Reporting Standards. Based on the primary data, they found that users of financial statements had a positive perception of the harmonization of accounting standards, and they opined that it enhances the quality of financial reporting.

(Amrishi, 2018) Identified fair value is the mantra of today in financial reporting across borders. He said that one of the purposes of proper value measurement is to narrow the gap between balance sheet value and market value of a company. Appropriate value measurement aims at the fair recording of a business transaction so that the financial statements can show an accurate and unbiased view of the profitability and financial position. Fair value measurement can be applied to different elements of financial statements. He has put this measurement basis to test through a case regarding the fair value mechanism applicable to the purchase of current investments and their continuing holding on the balance sheet date. The results supported the philosophy behind the fair value measurement basis. He concluded that the FV measurement does away with window dressing, makes the financial statements more transparent, closer to real market value, less volatile, and more predictable following the principle of substance over form, which is becoming all-pervasive now.

(Bhattacharya, 2018) stated that, 14 countries, including India, have adopted IFRS for at least some (but not all) domestic publicly accountable entities. He said that it would be interesting to see how Indian companies measure the fair

value of assets/liabilities, for which no active market exists, using significant unobservable inputs (i.e., Level 3 Inputs) as enumerated in the hierarchy of Ind AS 113.

(Buzinskienerita, 2017) elucidate that following accounting standards, mostly intangibles are not accounted for and reflected in the traditional financial accounting. For this reason, most companies account intangible assets (IAs) as expenses. In this research, 57 sub-elements of IAs were applied, which are grouped into eight principal elements of IAs. The classification of IAs consists of two parts of assets: accounting and non-accounting. The results of the research confirmed the IA valuation methodology, which allowed companies to calculate the fair value of an IA. The obtained extended IAs valuation information may be valuable to both the owners of the company and investors, as this value plays an important practical role in assessing the impact of IAs on the market value of companies.

(Maria, 2017) his study analyzed the accounting practice concerning the measurement of PPE and IP after recognition, under IFRS. For this research, the sample was extracted from the 350 listed European companies included in the S&P Europe 350 Index. Data was hand collected from the firm's annual reports for the years of 2004 and 2005. Findings indicated excellent resistance to the fair value model. The preference for the historical cost model is almost unanimous among European firms that prepared their consolidated financial statements in compliance with IFRS for the first time in 2005. Results also showed firms that had evaluated fixed assets before or at the transition date are more likely to adopt a fair value model under IFRS. However, most of the companies that reported tangible fixed assets revaluations under previous GAAP shift to a historical model under IFRS.

(Anastasia, 2016) his research work was explicitly focused on one accounting standard, IFRS 13, fair value measurement. The study investigated the impact of IFRS 13 on the note section and was motivated by the general discussion on how IFRS is different from Finnish accounting principles (FAS). Fair value hierarchy is the central concept under IFRS 13, which is represented by three levels (Level 1, Level 2 and Level 3). However, IFRS 13 extended requirements to non-financial instruments. The purpose of this research was to investigate how requirements to disclose hierarchy levels for both financial and non-financial instruments affected the note section with in-depth analysis of financial instruments. The scope of the research was limited to large and medium-sized companies operating in the industrial sector in Finland. The data is gathered from the note sections of annual reports from 2012 and 2013. An explanatory approach is used in data interpretation, which refers to observations to existing theory. As the main result, IFRS 13 extended disclosures. However, the most significant impact was on the companies, which had Level 3 inputs.

(Rao, D. D., & Shrivastava, 2015) they explained the effect of IFRS and IFRS converged Ind AS on the financial reporting of selected listed Indian companies for which financial reporting under the three sets of standards for the same period was available. It was also analyzed whether value relevance of financial information provided under IFRS and Ind AS was higher than that provided in financial statements prepared as per previous IGAAP, for the stakeholders when they have to make decisions in the capital markets. The result of the research showed a significant quantitative impact of IFRS and Ind AS on some of the selected accounting figures and ratios. It was also observed that IFRS and Ind AS had a positive effect on the relevance of financial reporting.

(Palea, 2014) discussed fair value accounting and its usefulness to financial statement users. He said that proper value accounting has been under in-depth scrutiny because of its alleged role in the financial crisis. Therefore, the usefulness of fair value accounting is a crucial issue for standard-setting purposes. He also explained that empirical research raised some doubts about value reliability. Furthermore, fair value accounting alone cannot provide information useful to evaluate stewardship. Historical cost is also needed. A dual measurement and financial reporting system could, therefore, deliver complete and helpful information to financial statement users. In this research, he used panel data from the financial reports of manufacturing companies quoted on the Nigerian Stock Exchange for the conversion periods 2011, 2012 and 2013 as applicable. The ordinary least square regression technique and t-statistic were used for the analysis. The study revealed that IFRS has a positive but insignificant effect on depreciation.

(Athma & Rajyalaxmi, 2013) their research work focused on the adoption of IFRS by Indian companies. This study is based on secondary data, which includes journals, websites, books and periodicals. The area of this study included phase-wise and sector-wise implementation of IFRS in India. For sector-wise analysis, BSE & NSE companies were taken. IFRS will provide a chance to India to integrate with the common Accounting International Standards, which would save the cost which has to be incurred by MNC's and internationally listed corporations for maintaining dual accounting and reporting systems.

(Kaur, 2013) explained the concept of fair value and gave arguments for and against proper value accounting. The author also raised fundamental questions about core accounting issues, such as how performance should be measured, and the relative merits of the qualities of relevance versus reliability. The most emerging problem is how long it will take for the full range of non- financial assets, and mainly internally generated goodwill, to be measured in this way.

(Pawan, 2013) tried to measure the extent of Fair Value adoption in Indian AS. According to the real author sector, future and option, employee benefits, plant & machines of the business brand, licenses, and trademarks are the areas where the concept of fair value accounting can be used.

(Bansal, 2011) explained the adoption of International Financial Reporting Standards (IFRS) and understanding the impending changes in accounting standards and their impact on the valuation of assets, especially loan loss provisions. In other words, the successful adoption of IFRS is based on flexibility and acceptability of IFRS by RBI.

(Chea, 2011) in his research article gave a brief historical development of the Statement of Financial Accounting Standards (FAS 157) and its impact on fair value accounting. It was followed by the methodology employed in the research. Next, he reviewed the literature on significant issues in fair value accounting and financial reporting. He also recommended enhancing the usefulness of proper value accounting and drew implications for financial reporting and users of financial statements.

(Markus, 2007) this research is taken in issue with the notion of decision usefulness of a fair-value-based reporting system from a theoretical perspective. Two approaches to decision were adopted, the measurement or valuation perspective and the information perspective. Findings indicated that the decision relevance of fair value measurement could be justified from both perspectives, yet the conceptual case is not healthy. The information aggregation notion that underlies standard setters' endorsement of fair value measurement turns out to be theoretically restricted in its validity and applicability.

## RESEARCH GAP

Many studies focus on asset revaluations, but the number of courses that focus on how commitment to fair value accounting for non-financial assets affecting book values of balance sheet items and financial ratios are significantly less. So, in this research, we are not only describing previous studies on asset revaluations but also the latest research focusing on fair value accounting for non-financial assets.

## OBJECTIVES

Based on the identified research gap, the study has undertaken the following objectives:

1. To examine whether and why in practice, companies use fair value accounting for two significant assets groups (i) Investment & (ii) Property, Plant and equipment (PPE).
2. To exploit changes in accounting practices around the adoption of IFRS in India
3. To examine each company's valuation practices for non-financial assets after the adoption of IFRS choosing fair value over historical cost.
4. To analyze, the company's decisions to use fair value after IFRS adoption for both the investment and Property, Plant and equipment assets groups.

## Selection of Sample

Our sample selection process began with Indian companies, whose database is available on the individual company's website. Sample of these companies complies with IFRS either in 2015 or 2016. It focuses on the changes in the accounting practices of these companies after switching to mandatory IFRS adoption. Researcher verified the accounting standards that a given company follows by looking at either the accounting policy section or the auditors' opinion section of its annual reports. To identify the assets valuation practice that a company follows, we read the accounting policy section of its annual reports.

Table 1 presents the name of the companies, which have been selected for this research. The top 20 Indian real estate companies were selected, which converge with IFRS. The cross-sectional sample consists of the companies, of which we can identify an annual report according to IFRS. Our chosen selection further required yearly reports (According to Indian GAAP) before mandatory IFRS adoption also. The sample period for which the annual reports were collected are of two years; the year 2016 before IFRS adoption and the year 2017 after IFRS adoption.

**Table 1: Selected Companies**

Serial No.	Company Name	Serial No.	Company Name
1	HDIL	11	DLF
2	Sunteck	12	Brigade ENT
3	Kolte Patil	13	Sobha
4	SRS Infra	14	Delta Group
5	Puravankara	15	PVP Ventures
6	Prestige Group	16	Omaxe
7	Shrishti Infra	17	Nitesh Estates
8	Supertech	18	Ajmera Realty
9	Oberoi Realty	19	Arihant Super
10	Godrej Prop	20	MVL

## Data Analysis and Interpretation

The research part is divided into two subsections: The first subsection summarizes the previous studies focusing on asset revaluations and fair value accounting effect on the book value of balance sheet items. Research on asset revaluations is closely related to fair value accounting since assets are usually revalued to reflect their market value better. The second subsection summarizes the focus on factors, explaining the choice to use fair value accounting. In this section, It is found that all these Indian companies who applied historical cost before IFRS adoption, are more likely to switch to fair value accounting for property investments, as real estate is among their primary activity. At the same time, we expect real estate companies to use fair value accounting for property investment more often because the real estate industry is more likely to exhibit fair liquid markets for comparable property. Besides, when a company is in the business of holding and selling property, changes in the value of property investment are closely linked to their performance measurement. Companies may be willing to trade off some reliability for greater relevance in cases where fair value provides better information about the success of the company operations over a given period.

Researchers also analyzed the company's decision to use fair value after IFRS adoption for both the investments and plant, property and equipment assets groups. This research paper divided into two sections, which describes:

### The Effect of Fair Value Accounting on Asset Values

The data has been taken from 20 Indian real estate companies that hold property investment. It is based on a matched sample of companies that began using fair value after IFRS adoption. We have checked each fair value with historical cost companies in the country, two-digit industry group, and the log of the market value of equity and have taken the closest match. The procedure requires the non-missing market value of equity. *BTM* is the book value of equity divided by the market value of equity. *TA* is the total value of assets. *MKT(TA)* is the market value of assets plus book value of liabilities. *ROA* is the return on investments, and *PPE/MKT(EQUITY)* is the book value of property, plant, and equipment divided by the market value of equity.

**Table 2: Property Investment**

Statistics	BTM	TA/MKT(TA)	ROA
<b>Mean:</b>			
Historical Cost Mean	0.69	0.84	5.74
Fair value mean	0.88	0.99	4.26
Difference	-0.19	-0.15	1.48

Statistics	BTM	TA/MKT(TA)	ROA
%	-27.53	-17.85	25.78
t-stat	-3.04	-3.98	0.68
P value	0.001	0.000	0.624
<b>Median:</b>			
Historical cost median	0.58	0.82	3.96
Fair value median	0.82	0.92	2.82
Difference	-0.24	-0.10	1.14
%	-41.37	-12.19	28.78
Z stat	-3.04	-3.56	2.12
P Value	0.00	0.00	0.22

**Table 3: Property, Plant and Equipment**

Statistics	BTM	TA/MKT(TA)	ROA	PPE/MKT (EQUITY)
<b>Mean</b>				
Historical cost mean	0.49	0.68	6.98	0.40
Fair value mean	0.89	0.93	4.02	0.94
Difference	-0.40	-0.25	2.96	-0.54
%	-81.63	-36.76	42.40	-135
t-stat	-3.96	-3.98	2.24	-2.76
p-value	0.00	0.00	0.16	0.01
<b>Median</b>				
Historical cost median	0.40	0.69	4.96	0.15
Fair value median	0.80	0.93	3.00	0.38
Difference	-0.40	-0.24	1.96	-0.23
%	-100	-34.78	39.51	153.33
Z-stat	-2.92	-3.96	1.69	-2.96
P value	0.00	0.00	0.06	0.00

The above two tables compare the book value of total assets (book value of equity ) divided by the market value of total assets (market value equity) for companies that use fair value with those companies that use only historical cost. Table 2 presents the evidence for property investment, and Table 3 shows the evidence for plant property and equipment. Each company that recognizes property plant and equipment at fair value has matched on industry and market capitalization with a company that acknowledges all assets at historical cost. For property investment, we included all companies that hold property investment as there is no pronounced imbalance between fair value and historical price. We find that the average ratio of the book value of total assets to the market value of total assets is higher for companies that recognize property investment at fair value; the percentage of the book value of equity to the market value of equity is

more elevated. Among companies that apply fair value to property plant and equipment, the ratio of book value to total assets to the market value of investments and the balance of the book value of equity to the market value of equity is higher than those attached companies that use only historical cost. The difference in the book value of assets and quality in both property investment and property plant and equipment samples are all significant at 1% level. We also examined how the return of assets (ROA) differs between fair value v/s historical cost companies. We found a lower ROA in the property plant and equipment sample among companies that recognize assets at fair value. In the property investment sample, we also found a lower ROA among companies that use proper value accounting; this difference, however, is statistically insignificant.

### The Use of Fair Value Accounting on Asset Values

In this section, we examined companies’ incentives to choose fair value over historical cost by analyzing cross-sectional variation in valuation practices after IFRS adoption. We used a logistic regression model to the probability that a given company will apply fair value as a function of company-specific characteristics. Our analysis draws on two different subsamples. First, we analyze the sample of companies that use fair value for property plant and equipment matched with a historical cost control group. The summary statistics for the variables used in this analysis are reported in Table 3. We framed the explanatory variable directly affected by fair value revaluations (e.g., a book to market, book leverage, and total assets). IFRS provides Indian companies with the first opportunity to switch to historical cost for property investment. Our sample comprises the 20 companies that hold property investment. As the number of observations and set of explanatory variables varies across the two subsamples.

### Property Investment

IFRS provides the first opportunity to Indian companies to switch to historical cost for property investment. We began with the simple logistic regression.

$$Fair\ cost\ IFRS = \beta_1 Fairpre\ IFRS + \beta_2 Fair\ pre\ IFRS + \beta_3 Costpre\ IFRS + \beta_4 Cost\ pre\ IFRS + \dots + 1.$$

Where Fair cost IFRS is an indicator variable that takes the value of one when a company applies fair value/historical cost to property investment and zero otherwise. Equation 1 examines the persistence of valuation practices and how this persistence varies with primary business activity. Precisely, the coefficients of  $\beta_1$  and  $\beta_3$  capture the industry of reporting method for real estate companies for investment properties and  $\beta_2$  and  $\beta_4$  capture the persistence of reporting method for real estate companies for property plant and equipment.

Table 4 presents summary statistics for three subsamples used in the logistic regression analysis presented in information regarding the use of fair value data is taken from the individual company website. Panel A presents a sample of 20 companies that hold property investment. Panel B shows a matched selection of companies that began using fair value after IFRS adoption. We check each appropriate value company with historical cost companies, which are based on market capitalization in the stock market and the log of the market value of equity and take the closest match this procedure, which requires the non-missing market value of equity, yields. In Panel C, we match companies that use fair value for property, plant, and equipment during at least one of the periods (i.e., either before IFRS adoption, after IFRS adoption, or both) with an equal sample of companies that use historical cost both before and after IFRS adoption. Matches based on industry and log of market valuation yield observations.

**Table 4: Use of Fair Value for Property Investment**

Variables	(1) Dbtlss 1	(2) Dbtlss 2	(3) Fltr lev 1	(4) Ftrlev 2	(5) Dbtgrow1	(6) Dbtgrow2	(7) EqIss1	(8) EqIss2
Early		1.29*** [2.551] [0.002]	1.822*** [2.084] [0.003]	1.432*** [2.304] [0.008]	1.6331*** [2.824] [0.013]	1.502** [2.036] [0.234]	1.404*** [2.833] [0.011]	1.306** [2.567] [0.010]
Size		-0.501* [-1.62] [0.093]	-0.201* [-1.762] [0.070]	-.202 [-1.862] [0.056]	0.200** [1.989] [0.042]	-0.370** [-2.210] [0.0271]	-0.0692 [-0.790] [0.0420]	-0.304 [-3.822] [0.000]
Mklev		2.601*** [3.802] [0.002]					2.887*** [3.162] [0.002]	2.106** [2.832] [0.006]
Mktlevshort			3.081*** [3.020] [0.002]					

Variables	(1) Dbtlss 1	(2) Dbtlss 2	(3) Fltr lev 1	(4) Ftrlev 2	(5) Dbtgrow1	(6) Dbtgrow2	(7) Eq1ss1	(8) Eq1ss2
Mktlevlong			3.968** [1.820] [0.032]					
Convertible			3.789** [2.866] [0.016]					
Debt to Oi				0.298** [2.877] [0.013]				
Converge					-0.376*** [-2.460] [0.0790]			
Current						-0.798** [-1.632] [0.076]		
Dividends							1.323** -2.837** [0.063]	
D(RE<0)								-1.760** [-1.660] [0.050]
RE								-5.006** [-1.415] [0.022]
RE*D(RE<0)								5.996** [1.968] [0.056]
Pseudo R squared	0.0032	0.469	0.584	0.436	0.394	0.428	0.603	0.412

Several potential explanations for fair value, through an equation augmented by the log of market capitalization, leverage, IFRS early adoption dummy, dividend payout dummy and retained earnings. Our key finding in Table 4 is that companies that rely more heavily on debt financing are more likely to apply fair value accounting to property investment. This finding, however, seems that one would expect to observe a negative association between reliance on debt and (more subjective fewer conservatives) fair value estimates.

To other light on this issue, we decompose leverage into its long and short-term components as well as a proxy for reliance on convertible debt. We find that short-term influence is at least as necessary as long-term debt in predicting fair value use. Also, the coefficient on convertible debt is significantly positive. As accounting-based covenant is less common on convertible debt contracts, the results are inconsistent with the conclusions that companies use fair value opportunistically to manage to earn around covenants. We find that the ratio of total debt to operating income is

positively related to the use of fair value. At the same time, the converge of interest, and the current ratio is negatively associated with fair value use. These results confirm the effect of leverage and show that companies with tighter covenant are more likely to use fair value. We interpret these results being consistent with companies more heavily dependent on the debt market using a fair deal to both signal the quality of their reasonable value estimates and convey information about their underlying fundamentals.

Table 4 examines whether dividends are related to fair value use. We find that dividend-paying companies and companies with positive retained earnings are less likely to use fair value for property investment. In particular, the coefficient included earning when retained earnings are positive. Results interpret as follows: Change in the fair value of property investment goes via income statement and therefore amplifies reaching volatility. It, in turn, leads to interruptions in dividend payouts. We would expect the appropriate amount to be less common among dividend-paying companies.

## Use of Fair Value for Property, Plant, and Equipment

Table 5 presents estimates from the logistic regression of the IFRS fair value indicator on a set of company-specific variables. All variables are defined in Appendix B. Information on the use of fair value is collected from the annual report from the individual company website portal.

The data is taken for the years 2016 and 2017. The results are based on a matched sample of companies that began using fair value after IFRS adoption.

We match each fair value company with historical cost companies, which are based on market capitalization in the stock market and the log of the market value of equity and take the closest match to this procedure, which requires the non-missing market value of equity yields.

**Table 5: Use of Fair Value for Property, Plant, and Equipment**

Variable	Dbtlss 1	Dbtlss 2	FtrLev1	FtrLev2	Dbtgrow1	Dbtgrow2	Eqlss1
Mkllev	1.98**				1.587**	2.803**	2.671**
	[1.602]				[1.327]	[2.005]	[2.532]
	[0.032]				[0.086]	[0.030]	[0.030]
Mktlevshort		2.492**					
		[2.232]					
		[0.003]					
Mktlevlong		2.004*					
		[1.332]					
		[0.832]					
Convertible		-6.328**		-5.336***			
		[-2.580]		[-2.820]			
		[0.009]		[0.020]			
Levbook			2.196**				
			[2.637]				
			[0.002]				
Levbook short				2.832**			
				[2.169]			
				[0.002]			
Levbooklong				2.830*			
				[1.809]			
				[0.076]			
DivDum					1.0657*		
					[1.723]		
					[0.796]		
D(RE<0)						-0.0776**	-0.0596
						[-0.112]	[-0.789]
						[0.896]	[0.320]
RE							1.186
							[0.0530]
							[0.6002]
RE*D(RE<0)							-2.832
							[0.889]
							[0.662]
Pseudo squared R	0.0689	0.132	0.0676	0.112	0.0977	0.0635	0.089

\*\*\*, \*\*, \* indicate statistical significance at less than 1, 5, and 10%, respectively



We conduct a similar analysis of a company decision post-IFRS to apply fair value to property plant and equipment. A few distinctions, we collected accurate data value revaluation reserves from the company's annual reports. It enabled us to compute book values of equity and total assets as if companies used historical cost, thus including book to market and book leverage as explanatory variables. Second, the percentage of fair value companies in the population is low for these assets as a group, therefore to improve the credibility of our inference, we match each fair value accounting a historical cost accounting adoption by the domestic company. Table 5 presents the results of our logistic analysis. Because we match according to country, industry and size, we omit these as explanatory variables. The coefficient on the book to market is positive and statistically significant in most specifications, which suggests that, after IFRS adoption, high growth companies are less likely to use fair value. In line with prior evidence, we find a positive and significant association between market leverage (book leverage) and the use of proper value accounting. Further analysis in column (3) reveals that short term debt, once again, accounts for this association. The portion of convertible debt is now significantly negatively related to the use of fair value, a finding for which we currently have now considerably negatively associated with the help of suitable value, a conclusion for which we currently have an explanation. We further find, as a positive coefficient on *FairInvPre* suggests, that companies that apply fair value to property investment are more likely to use fair value to property, plant, and equipment as well. Controlling for this effect, however, does not alter our findings concerning leverage or book-to-market. Finally, neither dividends nor retained earnings exhibit significance in this setting.

## CONCLUSION

This research investigated the use in the practice of fair value accounting for non-financial assets. Because companies can choose between historical cost and fair value accounting for these assets and the amount of information demanded by equity investors is often the same, we expect that the observed practice serves a contracting role and minimizes agency costs. We examined the accounting policies for property investment, and property, plant, and equipment and we found that fair value is used exclusively for the property. We find that 3% of companies use fair value for owner-occupied property, compared with 47% for property investment. The lack of companies that use the right deal for all other non-financial assets is inconsistent with the net benefits of proper value accounting. We can explain the use of fair value for property alone by the fact that fair values are more likely to exist for this type of asset. The primary determinant of fair value use for property investment is whether real estate is among a company's primary activities.

It is consistent with the historical cost being a less informative measure of economic performance in real estate companies. We found that leverage is an essential determinant of fair value use for investment and property, plant, and equipment. We argued that managerial opportunism is an unlikely explanation for this finding, which is somewhat more consistent with a contractual basis. In particular, fair value can supply lenders with the up-to-date liquidation value of a company's assets. We also found that companies with fewer growth opportunities are more likely to commit to fair value, a finding consistent with the use of fair value as a means of curbing overinvestment in fixed assets. Overall, our evidence is broadly consistent with the observation that companies do not perceive the net benefits of fair value accounting to exceed those of historical cost accounting. We find, however, that where fair value is used, the evidence points to contracting, rather than valuation, needs as the primary determinant of a company's decision to use fair value over historical cost.

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- MktLevShort* = short-term liabilities defined as total liabilities less long-term debt divided by market value of assets (liabilities plus the market value of equity) as of March 31 2016.
- LevBook* = book leverage defined as total liabilities divided by total assets net of fair value revaluation reserve.
- LevBookLong* = long-term debt divided by total assets net of fair value revaluation reserve. *Lev BookShort* = ratio of total liabilities minus long-term debt to total assets net of proper value revaluation reserve.
- Convertible* = ratio of convertible debt to long-term debt.
- Debt To Oi* = total liabilities divided by operating income.
- Coverage* = operating income divided by interest expense.
- Current* = current assets divided by current liabilities.
- Dividend* = one if the company pays dividends, and zero otherwise.
- RE* = retained earnings scaled by the market value of equity plus total liabilities.
- D(RE<0)* = one if retained earnings are negative, and zero otherwise.
- FairInvPr* = one if the company holds property investment recorded at fair value, and zero otherwise.
- DbtIss1* = change in total liabilities that took place from 2016 to 2017 scaled by beginning- the of-period market value of assets (liabilities plus the market value of equity).
- DbtIss2* = change in long-term debt that took place from 2016 to 2017 scaled by beginning- the of-period market value of assets (liabilities plus the market value of equity).
- FtrLev1* = total liabilities as of 2017 scaled by the beginning-of-period market value of assets (liabilities plus the market value of equity).
- FtrLev2* = long-term debt as of 2017 scaled by the beginning-of-period market value of assets (liabilities plus the market value of equity).
- DbtGrow1* = logarithmic growth in total liabilities from 2016 to 2017.
- DbtGrow2* = logarithmic growth in long-term debt from 2016 to 2017.
- EqIss1* = dummy variable; one if total net proceeds from the issuance of common and preferred stock less proceeds from stock options over 2016 and 2017 exceeded 10% of 2016 market value of assets (liabilities plus the market value of equity), and zero otherwise.
- EqIss2* = net proceeds from the issuance of common and preferred stock less proceeds from stock options combined over 2016 and 2017.

## APPENDIX

### Variable Definitions

*Fair\_IFRS* = one if the company uses fair value after the adoption of IFRS, and zero otherwise.

*Early* = one if the company adopted IFRS before 20016, and zero otherwise.

*Size* = log of the market value of equity.

*MktLev* = total liabilities divided by market value of assets (defined as a book value of liabilities plus the market value of equity) as of March 31 March 2016.

*MktLevLong* = long-term debt divided by market value of assets (liabilities plus the market value of equity) as of March 31 March 2016.