## THE LEVEL OF INVESTMENTS IN FAIR VALUE MEASURED ASSETS AS AN INDICATOR OF HIGHER FUTURE PROFITABILITY

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**SUMMARY:** The purpose of this study is to evaluate whether the level of investments in fair value measured assets provides incremental information about one-year-ahead earnings and firm value. A least squares regression analysis is used to analyze the correlation of the intensity of fair value measured assets with one-year-ahead earnings and firm value, measured as stock pricing. We find that the intensity of fair value measured assets is positively correlated with one-year-ahead earnings and firm value. We find that the intensity of fair value measured assets is positively correlated with one-year-ahead earnings and firm value. We also employ statistical subgroup regression analysis to evaluate the effect of firms facing constrained cash flows on the predictive ability of the intensity of fair value measured assets. Our analysis also provides evidence that investors incorporate fair value disclosure information into the valuation of a firm's stock. Unlike most fair value disclosure research, this study focuses on nonfinancial firms adding evidence to the predictive value of fair value disclosures.

Keywords – Fair Value, Nonfinancial Firms, Firm Value

## **INTRODUCTION**

In 2006, the Financial Accounting Standards Board (FASB) issued a new Statement of Financial Accounting Standards (FAS 157) that required disclosure of assets measured at fair value for fiscal years beginning after November 15, 2007. Effective July 1, 2009, FAS 157 was integrated into the Accounting Standards Codification as Topic 820, Fair Value Measurement. Disclosures of the assets measured at fair value provide an opportunity for financial accounting researchers to test whether such information is useful for decision-making purposes.

This paper evaluates whether the level of investments in assets measured at fair value provides incremental information about a firm's future profitability for industries other than banking and financial institutions.

Following cash, fair value measured assets are generally the most liquid assets available to the firm. Accordingly, the influence of fair value measured assets on a firm's operations and valuation is expected to closely mimic that of cash. It is well established in the literature that cash reserves are important to the firm in two ways. First, cash reserves increase the ability of the firm to withstand exogenous shocks such as the recent Covid-19 pandemic and, second, cash reserves

position the firm to invest in future opportunities. Because of this, we expect fair value measured assets to provide similar results to that of cash reserves resulting in increased profit potential and stronger valuations attributable to investment in future profitable opportunities.

Our findings suggest that, for nonfinancial firms, investment in fair value measured assets is positively associated with one-year-ahead earnings. We also find that the positive effects of investment in fair value measured assets on one-year-ahead earnings are more significant for firms experiencing more binding cash flow constraints. In addition, we test whether investors incorporate fair value disclosure information in the valuation of a firm's stock and find that fair value disclosure provides relevant information for stock pricing.

Fair value reporting applies primarily to financial assets and liabilities. Because banks and financial institutions have heavy concentrations of these assets and liabilities, most fair value reporting research has focused on what information this disclosure provides for the banking and financial industry (SIC 6000-6999). However, the reach of ASC Topic 820 extends beyond the financial industry and provides researchers and investors with an opportunity to explore the implications of fair value disclosure for other industries.

Our study makes several contributions to the literature. First, we add to the research examining the intensity of fair value measured assets in nonfinancial firms as an indicator of higher future profitability. Prior fair value disclosure literature has primarily focused on financial firms and banks. We extend the analysis of what information fair value disclosure provides to nonfinancial firms. Second, we find that the positive effects of investments in fair value measured assets on future profitability are more significant for firms experiencing binding cash flow constraints. Third, we evaluate the effect of investments in fair value assets on stock pricing and find that increasing levels of investments in fair value measured assets are positively associated with stock value.

The remainder of this paper is organized as follows. In the next section, we provide a literature review. Following that, we discuss our hypothesis development and research design. Then we describe the data used in our analysis and the test results. We conclude with a summary of the implications of our study.

### LITERATURE REVIEW

Fair Value reporting and its value relevance is one of the top four issues of academic researchers (Filip et al., 2017). An extensive body of research has been developed since the FASB's issuance of SFAS No. 157, *Fair Value Measurements*. However, due to the intensity of assets reported under the fair value disclosure rules, research has tended to focus on banks and financial firms (Barth, 1994; Barth et al., 1995; Black et al., 2017). Researchers have addressed fair value disclosure's usefulness to investors (Barth, 2006; Filip et al., 2017; Song et al., 2010; Lawrence et al., 2016), and to analysts (Ayres et al., 2017; Bischof et al., 2014; Filip et al., 2017). Research has also examined whether fair value disclosure is a predictor of stock pricing and earnings sustainability in the context of the financial industry (Barlev & Haddad, 2003; Barth, 1994; Barth et al., 2018).

Barlev and Haddad (2003) examined the predictive qualities of fair value reporting and found that historical cost accounting tends to hide firms' financial position and income, especially when compared to the transparency provided by Fair Value reporting. Barth (1994) examined U.S. banks from the 1990 Compustat Annual Bank Tape concluding that Fair Value disclosure provides significant explanatory power while historical cost information was not informative of future share

prices. Carroll et al., (2003) examined closed end mutual funds and found a significant correlation between stock prices and the reported Fair Value of investment securities. Freeman et al., (2017) evaluated 5,672 U.S. banks over the period of 2008 through 2014 and concluded that Fair Value measurements were significantly value relevant.

A 2011 literature review (Bonaci & Tudor, 2011) found increased investor reliance on fair value disclosure and a heavy concentration of research in the financial firms' industry. However, researchers have begun to explore the effects of fair value disclosure on nonfinancial firms. Simko (1999) evaluated fair value disclosure in the context of nonfinancial firms concentrating primarily on fair value disclosure of liabilities. The study examined the cumulative liability holding gains based on the difference in carrying value and disclosed fair value of debt. Simko (1999) found a correlation of liability fair values with equity values but could not produce any evidence that fair value disclosures for assets of nonfinancial firms were associated with equity value. Ayres et al., (2017) found a significant correlation between fair value measured assets and analysts' earnings forecasts using a sample that included nonfinancial firms. In addition, Barth et al., (2018) measured the value-relevance of various accounting amounts over ten industries and found an increasing correlation of fair value disclosure to firm value over the analysis period of 1962 to 2014.

The impact of cash reserves and cash flow on investment has also been addressed in the literature. Han and Qiu (2007) examined changes in cash holdings of financially constrained firms and found a positive correlation between cash flow volatility and increases in cash holdings. Financially constrained firms were identified as those that had limited financing capacity to make investments. Financially constrained firms that lack sufficient cash holdings must sell off current investments to make new investments and, in volatile cash flow periods, must maintain higher levels of cash in reserve. Iskandar-Datta and Jia (2012) supported this finding by providing evidence that increases in cash holdings were associated with declines in leverage signaling that the cash increase was not debt-financed. However, neither of these studies considered the import of fair valued measured assets.

Myers (1977) opined that firms are valued as going concerns and part of that value rests on the ability to make profitable investments in the future. Recent literature has examined the effect of cash holdings on both future earnings and valuation of the firm (Chang & Yang, 2022; da Cruz, Kimura, & Sobreiro, 2019; Hapsari & Norris, 2022; Kim, Mauer, & Sherman, 1998). Lee and Wang (2021) found that internal financing comes with substantially less cost than external financing. Further, the ability to act decisively when an investment opportunity presents is fundamental to increasing both firm value and future profits (Mikkelson & Partch, 2003).

Moyen (2004) explored the influence of financing constraints on firms' investment in cash flow and found that constrained firms relied on internal funds for investment leading to a higher sensitivity to cash flows. Higher cash holdings in constrained firms were found to be more positively correlated with investment than for unconstrained firms. Further, Moyen (2004) found increased cash holdings of financing constrained firms to be positively associated with stock prices. In a more recent study, Zhuang, Nie, and Wu (2022) reported that cash is valued significantly higher in firms that have cash holdings below the peer group median.

However, very little research has viewed fair value measured assets as a near-proxy for cash reserves, which is troubling since fair value measured assets typically represent the next most liquid asset group following cash. We intend to address this gap in the literature by testing the effects of fair valued assets in terms of its influence on firm valuation and on future profitability.

This paper contributes to the growing body of research exploring the predictive qualities of fair value disclosure, particularly in the nonfinancial firms' segment. We test the effect of fair

value measured assets on both future profitability and firm value. We also test the effects of cash flow constraints on the correlation of the level of investments in fair value measured assets with one-year-ahead earnings. Our analysis finds evidence that fair value disclosure does provide predictive information about future profitability and stock pricing.

### **HYPOTHESES**

If a firm sees profitable investment projects that will require more resources than the cash flows to be generated in the future periods, it will keep a portion of current period cash flows in the form of assets that are readily available for future investment projects. Because such assets need to be readily available in the future, investments in the assets that are measured at fair value will meet such requirements. The level of investments in fair value measured assets reflects the intent and ability of a firm to invest in profit generating activities in the future. If the management of a firm intends to invest in future profit generating activities and such an intent is supported by the financial capacity of a firm, it is predicted that such a firm will generate higher profit in the following year. This leads to Hypothesis 1.

*H1*: The level of a firm's investments in fair value measured assets provides incremental information about a firm's one-year-ahead earnings after controlling for current earnings, cash flows, and revenues.

It is predicted that the future earnings of such a firm will be higher than other firms because the intent of management is supported by the financial capacity of the firm.

*H2*: Investors reflect the positive effects of a firm's investments in fair value measured assets in the valuation of stock.

If the level of investments in fair value measured assets is positively associated with future profitability, it is predicted that such information will be reflected in the valuation of stock for the firms with higher levels of investments in fair value measured assets.

*H3*: The positive effects of investments in fair value measured assets on a firm's one-year-ahead earnings are more significant for the firms experiencing more binding cash flow constraints.

It is predicted that the positive effects of the higher levels of investments in fair value measured assets are greater for firms with relatively lower capacity to generate cash flow from operating activities. Firms that expect to generate relatively lower cash flow from operation activities will rely more on the past accumulation of fair value measured assets to supplement the cash flow required for the investment projects to generate higher profit.

## **RESEARCH DESIGN**

To test our hypotheses, four regression models were developed. Discussions below show how the regression models were constructed to test each hypothesis.

## 4.1. Test of Hypothesis 1

To test whether the level of a firm's investments in fair value measured assets is associated with the level of a firm's one-year-ahead earnings after controlling for the current year earnings, cash flows, and revenues, regression Model 1 is applied. The Correlation Table, as reported in Panel C of Table 2, indicates that both net income and cash flows are positively correlated with one-year-ahead profit and contemporaneous stock price. Revenues are also positively correlated with one-year-ahead profit. To test the effect of a firm's investments in fair value measured assets, Model 1 includes these variables as independent variables in the regression.

**Model 1**:  $NI_{t+1} = \beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_{t+1}$ 

## Where

 $NI_{t+1}$  is net income scaled by average total assets for the period t+1  $NI_t$  is net income scaled by average total assets for the period  $CFO_t$  is cash flow from operating activities scaled by average total assets for the period  $REV_t$  is annual revenue scaled by average total assets for the period  $FVA_t$  is fair value measured assets scaled by total assets at the end of the period

If the coefficient of the variable  $FVA_t$  is positive and significantly different form zero, it suggests that firms reporting higher levels of investments in fair value measured assets are more likely to report higher net income in the following year.

## 4.2. Test of Hypothesis 2

Regression Model 2 tests whether stock market investors consider the level of a firm's investments in fair value measured assets in the valuation of a firm's stock.

**Model 2**:  $PB_t = \beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_t$ 

## Where

 $\mathbf{PB}_t$  is the stock price per share divided by the book value per share at the end of the period

If stock market investors assign higher value to the firms with more investments in fair value measured assets, the coefficient of  $FVA_t$  in regression Model 2 will be positive and significantly different from zero.

## 4.3. Test of Hypothesis 3

Regression Model 3 examines whether the levels of cash flows work as a binding constraint for a firm's ability to invest in future profit-generating activities. The indicator variable LowCF<sub>t</sub> is one if a firm's cash flow from operating activities is below the median of the sample and zero otherwise. Low cash flow firms often find that the ability to invest in future profit-generating activities is more limited than for firms with high cash flows. If a firm maintains its level of investments in fair value measured assets in spite of limited current period cash flows, it is an indication that the management is more dedicated to investing in future profit-generating activities. It also may be an indication that such a firm has more investment opportunities to generate future profit.

**Model 3**:  $NI_{t+1} = \beta_0 + \beta_1 LowCF_t + \beta_2 NI_t + \beta_3 NI_t LowCF_t + \beta_4 CFO_t + \beta_5 CFO_t LowCF_t + \beta_6 REV_t + \beta_7 REV_t LowCF_t + \beta_8 FVA_t + \beta_9 FVA_t + LowCF_t + \epsilon_{t+1}$ 

Where

LowCF<sub>t</sub> is an indicator variable equal to 1 if current period cash flow is below the median cash flow of the sample, and 0 otherwise

If firms experience limited current period cash flows, the resources maintained in the fair value measured assets will be allocated to the projects with higher profitability levels. Firms in such cases are expected to report a stronger association between current investments in fair value measured assets and future net income. The coefficient of  $FVA_t$ \*LowCF<sub>t</sub> is expected to be positive and significantly different from zero if Hypothesis 3 is supported.

**Model 4**: PB<sub>t</sub> =  $\beta_0 + \beta_1 \text{LowCF}_t + \beta_2 \text{NI}_t + \beta_3 \text{NI}_t \text{LowCF}_t + \beta_4 \text{CFO}_t + \beta_5 \text{CFO}_t \text{LowCF}_t + \beta_6 \text{REV}_t + \beta_7 \text{REV}_t \text{LowCF}_t + \beta_8 \text{FVA}_t + \beta_9 \text{FVA}_t \text{LowCF}_t + \varepsilon_t$ 

Model 4 tests the differential effects of fair value measured assets on firm value for high and low cash flow firms. The coefficient of  $FVA_t$  in regression Model 4 reports the effects of fair value measured assets for high cash flow firms, and the coefficient of  $FVA_t$ \*LowCF<sub>t</sub> reports the incremental effects for low cash flow firms.

## DATA AND SAMPLE

Sample firm-years were selected from the COMPUSTAT North American Fundamentals Annual dataset as provided by the Wharton Research Data Services (WRDS) web site (<u>https://wrds-www.wharton.upenn.edu</u>). As the fair value disclosure requirements of FAS 157 became effective for fiscal years beginning after November 15, 2007, fiscal years from 2008 to 2021 were included in the sample. The sample excluded financial services firms that reported a primary SIC code from 6,000 to 6,999.

The sample initially included 41,581 firm-years for fiscal years ranging from 2008 to 2021. From 51,822 firm-years, 25,543 firm-years reported one or more missing values for NI<sub>t+1</sub>, NI<sub>t</sub>, CFO<sub>t</sub>, REV<sub>t</sub>, FVA<sub>t</sub> or PB<sub>t</sub>. These observations were excluded from the sample leaving 27,735 remaining firm-years. Finally, 1,456 firm-years were trimmed due to extreme values that were defined as the values below the 1st percentile or above the 99th percentile. The final sample included 26,279 firm-years.

Appendix A provides variable definitions. The distributions of sample firm-years by industry (Panel A) and by fiscal years (Panel B) are reported in Table 1. Descriptive statistics for the sample firm-years are presented in Table 2, which provides information for all firm-years in Panel A, data for firms with high versus low cash flow in Panel B, and a correlation table in Panel C.

4-digit SIC Codes	Firm- Years
0100 - 0999	89
1000 - 1999	2,253
2000 - 2999	6,212
3000 - 3999	7,328
4000 - 4999	2,810
5000 - 5999	2,173
7000 - 7999	4,171
8000 - 8999	1,096
9000 - 9999	147
Total Number of Firm-Years	26,279

TABLE 1 NUMBER OF FIRM-YEARS BY INDUSTRY AND FISCAL YEAR

Panel A: By Standard Industry Classification (SIC) Codes

Note: Financial services firms with 4-digit SIC Codes from 6000 to 6999 were not included in the sample.

Panel B: By Fiscal Year

Fiscal Year	Firm-Years
2008	1,840
2009	2,329
2010	2,285
2011	2,228
2012	2,202
2013	2,107
2014	2,042
2015	1,971
2016	1,935
2017	1,842
2018	1,833
2019	1,821
2020	1,844
Total Number of Firm-Years	26,279

Panel A: All Firms			
Accounting Variables	Ν	Mean	Std Dev.
$\mathbf{PB}_t$	26,279	2.997	8.279
$NI_{t+1}$	26,279	-0.152	0.771
$\mathbf{NI}_t$	26,279	-0.152	0.722
$\mathbf{CFO}_t$	26,279	-0.022	0.349
$\mathbf{REV}_t$	26,279	0.856	0.698
$\mathbf{FVA}_t$	26,279	0.165	0.249

## TABLE 2 **DESCRIPTIVE STATISTICS**

## Panel B: High/Low CFO<sub>t</sub> Firm-Years

	(1)		(2)			(3)			
	High C	CFO <sub>t</sub> Firm	n-Years	 Low CF	Ot Firm-Y	lears		Diff. in	Mean <sup>(a)</sup>
Accounting Variables	Ν	Mean	Std Dev.	 Ν	Mean	Std Dev		Diff.	P-value
$\mathbf{PB}_t$	13,140	3.386	7.178	13,139	2.608	9.234		0.777	<.0001
$NI_{t+1}$	13,140	0.046	0.126	13,139	-0.349	1.047		0.396	<.0001
$\mathbf{NI}_t$	13,140	0.052	0.107	13,139	-0.357	0.973		0.409	<.0001
$\mathbf{CFO}_t$	13,140	0.140	0.058	13,139	-0.184	0.434		0.323	<.0001
$\mathbf{REV}_t$	13,140	1.015	0.670	13,139	0.697	0.689		0.318	<.0001
$\mathbf{FVA}_{t}$	13,140	0.112	0.172	13,139	0.218	0.297		-0.106	<.0001

<sup>(a)</sup> Column 3 reports the differences in means between the high and low CFO<sub>t</sub> firms and the t-test p-value for the significance of the difference in means.

Panel C: Cor	relation Tabl	e				
	PBt	NI <sub>t+1</sub>	NIt	CFOt	<b>REV</b> t	<b>FVA</b> t
PBt	1	0.19	0.19	0.18	0.01	0.20
NI <sub>t+1</sub>	0.07	1	0.76	0.68	0.40	-0.09
NIt	0.08	0.76	1	0.75	0.42	-0.08
CFOt	0.08	0.69	0.78	1	0.39	-0.09
<b>REV</b> t	0.00	0.16	0.17	0.27	1	-0.21
<b>FVA</b> t	0.10	-0.08	-0.09	-0.23	-0.28	1

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Pearson correlation coefficients are reported below the diagonal and Spearman correlation coefficients are reported above the diagonal. Significant correlation coefficients are bolded at 0.01 level.

#### **TEST RESULTS**

#### 6.1. Test of Hypothesis 1

The results of applying Test Model 1 are reported in Table 3. As shown in the table, the coefficient of  $FVA_t$  is 0.0835 and significantly different from zero at the 1% level. Therefore, hypothesis 1 is supported – firms with higher levels of investments in fair value measured assets report higher net income in the following year after controlling for the effects of current accounting variables such as net income, cash flows, and revenues.

TABLE 3						
<b>FUTURE PROFIT</b> (	(NI <sub>t+1</sub> ) AS DEPENDENT VARIABL	E				

Variable	Parameter	Standard	t Valua	$\mathbf{D}_{\mathbf{H}} >  \mathbf{f} $
	Estimate	Error	t value	rr> ı
Intercept	-0.0687	0.0058	-11.78***	<.0001
$NI_t$	0.5947	0.0067	88.89***	<.0001
<b>CFO</b> <sub>t</sub>	0.5782	0.0143	40.31***	<.0001
$\mathbf{REV}_t$	0.0075	0.0046	1.62	0.1053
<b>FVA</b> <sub>t</sub>	0.0835	0.0129	$6.47^{***}$	<.0001
Adjusted $R^2 = 0.6$	011			
F-statistic = 9,900	0.36***			
Number of Firm-	Years = 26,279			
*, **, *** indicate	e two-tailed statis	tical significanc	e at the 10%, 5%	%, and 1% leve

**Model 1**:  $NI_{t+1} = \beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_{t+1}$ 

#### 6.2. Test of Hypothesis 2

The result of testing Hypothesis 2 is reported in Table 4. In Test Model 2, the dependent variable of the regression is the Price to Book (PB) Ratio that is calculated as the stock price per share divided by book value per share at the end of the fiscal year. When PB is used as the dependent variable, the coefficient of  $FVA_t$  is positive, 4.1845, at the 1% significance level. Therefore, stock market investors consider the information conveyed by a firm's level of investments in fair value measured assets as a positive signal about a firm's future profitability and reflect such information in the valuation of a firm's stock. The result presented in Table 4 is consistent with Hypothesis 2.

TABLE 4					
PRICE TO BOOK (PB)	) RATIO AS DEPENDENT VARIAI	BLE			

Variable	Parameter	Standard	4 Value	$\mathbf{D}_{\mathbf{M}} >  \mathbf{t} $
	Estimate	Error	t value	$\mathbf{r}\mathbf{r} >  \mathbf{u} $
Intercept	2.3048	0.0981	23.51***	<.0001
$\mathbf{NI}_t$	0.0817	0.1125	0.73	0.4678
$\mathbf{CFO}_t$	2.3957	0.2411	9.94***	<.0001
$\mathbf{REV}_t$	0.0782	0.0774	1.01	0.3126
<b>FVA</b> <sub>t</sub>	4.1845	0.2168	19.3***	<.0001
Adjusted $R^2 = 0.0$	)210			
F-statistic = 142.(	02***			
Number of Firm-	Years = 26,279			
*, **, *** indicat	e two-tailed statis	tical significanc	e at the 10%, 59	%, and 1% leve

**Model 2**:  $PB_t = \beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_t$ 

## 6.3. Test of Hypothesis 3

Tables 5 and 5A report the results of testing whether lower levels of current period cash flows affect a firm's ability to invest in future profit-generating projects. As shown in Table 5, the coefficient of fair value measured assets (FVA<sub>t</sub>) in the prediction of one-year-ahead earnings is positive, 0.1383, and significantly different from zero at the 1% level for the firm-years with below the median CFO<sub>t</sub> of the sample. In contrast, the comparable coefficient of FVA<sub>t</sub> for the high cash flow firm-years is negative, -0.0159, at the 10% significance level. As shown in Table 5A, the coefficient of FVA<sub>t</sub>\*LowCF<sub>t</sub>, that measures the difference is positive, 0.1542, and significant at the 1% level.

TABLE 5 HIGH/LOW CFOT FIRM-YEAR COMPARISON							
<b>Model 1</b> : $NI_{t+1} = \beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_{t+1}$							
	(1)		(2)				
High $\mathbf{CFO}_t$ Firm- Low $\mathbf{CFO}_t$ Firm- (3) = (2) - (1)							
	Years	S	Years			Coeff. <sup>(a)</sup>	
Variables	Coeff.	T-stat.	Coeff.	T-stat.	Diff.	P-value	
Intercept	-0.0081**	-2.96	-0.0702***	-6.21	-0.0621***	<.0001	
$\mathbf{NI}_t$	$0.5495^{***}$	57.94	$0.5823^{***}$	60.57	0.0328	0.4428	
<b>CFO</b> <sub>t</sub>	0.1196***	6.56	$0.6354^{***}$	28.64	$0.5157^{***}$	<.0001	
$\operatorname{REV}_t$	$0.0104^{***}$	7.05	0.0213	2.29	0.0108	0.247	
<b>FVA</b> <sub>t</sub>	-0.0159*	-2.73	0.1383***	6.43	$0.1542^{***}$	<.0001	

Ν	13,140	13,139	
Adj. $R^2$	0.2484	0.5797	
<sup>(a)</sup> Differences	in coefficients are	e measured by applying Model	3:
$\mathbf{NI}_{t+1} = \mathbf{\beta}_0 + \mathbf{\beta}_1$	$LowCF_t + \beta_2 NI_t$	+ $\beta_3 NI_t * Low CF_t + \beta_4 CFO_t + \beta_4$	$_{5}$ CFO <sub>t</sub> *LowCF <sub>t</sub> + $\beta_{6}$ REV <sub>t</sub> +
$\beta_7 \text{REV}_t \text{*Low}$	$CF_t + \beta_8 FVA_t + \beta_9$	$PFVA_t * LowCF_t + \varepsilon_{t+1}$	
*, **, *** indi	cate two-tailed st	atistical significance at the 10%	%, 5%, and 1% levels, respectively.

## TABLE 5AHIGH/LOW CFOT FIRM-YEAR COMPARISON WITH INTERACTIONS

**Model 3**:  $NI_{t+1} = \beta_0 + \beta_1 LowCF_t + \beta_2 NI_t + \beta_3 NI_t LowCF_t + \beta_4 CFO_t + \beta_5 CFO_t LowCF_t + \beta_6 REV_t + \beta_7 REV_t + LowCF_t + \beta_8 FVA_t + \beta_9 FVA_t + LowCF_t + \epsilon_{t+1}$ 

Variable	Parameter Estimate	<b>Standard Error</b>	t Value	Pr >  t
Intercept	-0.0081	0.0122	-0.67	0.5058
<b>LowCF</b> <sub>t</sub>	-0.0621	0.0146	-4.24***	<.0001
$\mathbf{NI}_t$	0.5495	0.0422	13.02***	<.0001
NI <sub>t</sub> *LowCF <sub>t</sub>	0.0328	0.0428	0.77	0.4428
$\mathbf{CFO}_t$	0.1196	0.0812	1.47	0.1405
<b>CFO</b> <sub>t</sub> *LowCF <sub>t</sub>	0.5157	0.0827	6.24***	<.0001
$\mathbf{REV}_t$	0.0104	0.0066	1.58	0.1133
<b>REV</b> <sub>t</sub> *LowCF <sub>t</sub>	0.0108	0.0094	1.16	0.247
$\mathbf{FVA}_t$	-0.0159	0.0259	-0.61	0.54
FVA <sub>t</sub> *LowCF <sub>t</sub>	0.1542	0.0301	5.12***	<.0001

Adjusted  $R^2 = 0.6029$  F-Statistic = 4,434<sup>\*\*\*</sup> Number of Firm-Years = 26,279 \*, \*\*, \*\*\* indicate two-tailed statistical significance at the 10%, 5%, and 1% levels, respectively. **LowCF**<sub>t</sub> is an indicator variable equal to 1 if **CFO**<sub>t</sub> is below the median **CFO**<sub>t</sub> of the sample and 0, otherwise.

Therefore, our test result supports that the level of current cash flows is a constraint that affects a firm's ability to invest in future profit-generating activities. The incremental coefficient of  $FVA_t$  for the firms with lower levels of current cash flows, measured by the coefficient of  $FVA_t^*LowCF_t$  is positive and significantly different from zero. For the firms with lower cash flows, the level of investments in fair value measured assets is a stronger indicator of higher one-year-ahead earnings.

It is interesting to note that the variable,  $FVA_t$ , becomes non-significant in Table 5A. Once it is included in the interaction term,  $FVA_t$  \*LowCF, the stand-alone variable  $FVA_t$  reflects the simple effect where  $FVA_t$  captures information only on high cash flow firms. The results support that the investments in fair value measured assets provide information for low cash flow firms only, as captured in the coefficient of  $FVA_t$  \*LowCF.

Test results reported in Tables 6 and 6A show that stock market investors consider the higher level of investments in fair value measured assets as a positive indicator of firm valuation regardless of the firm's capacity to generate cash flow from operating activities. Table 6 reports that the coefficients of FVA<sub>t</sub> are positive and significantly different from zero for both low CFO<sub>t</sub> firms, 4.0551, and high CFO<sub>t</sub> firms, 3.5263. Test results reported in Table 6A support that the difference between high and low CFO<sub>t</sub> firms, measured as the coefficient of FVA<sub>t</sub>\*LowCF<sub>t</sub>, 0.5288, is not significantly different from zero.

TABLE 6   HIGH/LOW CFOT FIRM-YEAR COMPARISON FOR PB RATIO									
<b>Model 2</b> : PB <sub>t</sub> = $\beta_0 + \beta_1 NI_t + \beta_2 CFO_t + \beta_3 REV_t + \beta_4 FVA_t + \varepsilon_t$									
	(1)		(2)						
	High CFO	Firm-	Low CF	Low CFO <sub>t</sub> Firm-		(3) = (1) - (2)			
	Year	8	Ye	Years		Diff. in Coefficient <sup>(a)</sup>			
Variables	Coeff.	T-stat.	Coeff.	T-stat.	Diff.	P-value			
Intercept	1.4573	8.19***	2.2314	14.69***	0.7741***	0.0017			
$NI_t$	2.8522	4.63***	0.1546	1.2	-2.6976***	0.0002			
$\mathbf{CFO}_t$	9.6899	$8.17^{***}$	1.8610	6.24***	-7.8289***	<.0001			
$\mathbf{REV}_t$	0.0283	0.29	-0.1579	-1.26	-0.1862	0.2371			
FVA <sub>t</sub>	3.5263	9.33***	4.0551	14.02***	0.5288	0.2967			
Ν	13,140		13,139						
Adj. $R^2$	0.0208		0.0229						

<sup>(a)</sup> Differences in coefficients are measured by applying Model 4:

 $PB_{t} = \beta_{0} + \beta_{1}LowCF_{t} + \beta_{2}NI_{t} + \beta_{3}NI_{t}*LowCF_{t} + \beta_{4}CFO_{t} + \beta_{5}CF_{t}*LowCF_{t} + \beta_{6}REV_{t} + \beta_{6}REV_{t}$ 

 $\beta_7 \text{REV}_t \text{*LowCF}_t + \beta_8 \text{FVA}_t + \beta_9 \text{FVA}_t \text{*LowCF}_t + \varepsilon_t$ 

\*, \*\*, \*\*\* indicate two-tailed statistical significance at the 10%, 5%, and 1% levels, respectively.

# TABLE 6AHIGH/LOW CFOT FIRM-YEAR COMPARISON WITH INTERACTIONS

**Model 4**: PB<sub>t</sub> =  $\beta_0 + \beta_1 \text{LowCF}_t + \beta_2 \text{NI}_t + \beta_3 \text{NI}_t \text{LowCF}_t + \beta_4 \text{CFO}_t + \beta_5 \text{CFO}_t \text{LowCF}_t + \beta_6 \text{REV}_t + \beta_7 \text{REV}_t \text{LowCF}_t + \beta_8 \text{FVA}_t + \beta_9 \text{FVA}_t \text{LowCF}_t + \epsilon_t$ 

Variable	Parameter Estimate	<b>Standard Error</b>	t Value	$\Pr >  t $
Intercept	1.4573	0.2049	7.11***	<.0001
<b>LowCF</b> <sub>t</sub>	0.7741	0.2460	3.15***	0.0017

Variable	Parameter Estimate	<b>Standard Error</b>	t Value	$\Pr >  t $
$\mathbf{NI}_t$	2.8522	0.7098	4.02***	<.0001
NI <sub>t</sub> *LowCF <sub>t</sub>	-2.6976	0.7191	-3.75***	0.0002
$\mathbf{CFO}_t$	9.6899	1.3651	$7.10^{***}$	<.0001
<b>CFO</b> <sub>t</sub> *LowCF <sub>t</sub>	-7.8289	1.3910	-5.63***	<.0001
$\mathbf{REV}_t$	0.0283	0.1108	0.26	0.7983
<b>REV</b> <sub>t</sub> *LowCF <sub>t</sub>	-0.1862	0.1575	-1.18	0.2371
$\mathbf{FVA}_t$	3.5263	0.4353	$8.10^{***}$	<.0001
FVA <sub>t</sub> *LowCF <sub>t</sub>	0.5288	0.5066	1.04	0.2967

Adjusted  $R^2 = 0.0242$  F-Statistic = 73.53<sup>\*\*\*</sup> Number of Firm-Years = 26,279 \*, \*\*, \*\*\* indicate two-tailed statistical significance at the 10%, 5%, and 1% levels, respectively. **LowCF**<sub>t</sub> is an indicator variable equal to 1 if **CFO**<sub>t</sub> is below the median **CFO**<sub>t</sub> of the sample and 0, otherwise.

#### SUMMARY AND CONCLUSION

Although the importance of fair value disclosure has long been subject to controversy, we find that fair value disclosure provides important information that is useful for decision-making and for understanding a firm's financial operations. Our paper contributes to the growing body of evidence that supports the importance of fair value reporting.

We examine whether fair value disclosure provides predictive information about a firm's one-year-ahead earnings and the valuation of a firm's stock. Our study indicates that fair value measured assets simulate the effect of maintaining higher cash reserves. Unlike most fair market value research, we focus exclusively on nonfinancial firms. We present evidence suggesting that firms with more investments in fair value measured assets report higher future profitability. We expand our study to include the influence of cash flows and find that the level of investments in fair value measured assets is more positively associated with one-year-ahead earnings for firms experiencing more binding cash flow constraints. We also find that such information is reflected in the valuation of a firm's stock by investors.

Our analysis contributes to the literature by adding to the body of research examining future profitability. While most fair value disclosure research examines financial firms due to the high intensity of such assets in this industry, we exclude financial firms from our analysis and explore what information is provided by fair value disclosure for nonfinancial firms. Using statistical subgroup regression analysis, we examine the effect of firms with a high intensity of fair valued measured assets and firms facing constrained cash flows on what information is provided by fair value disclosures. Our analysis provides support for the predictive information provided by fair value disclosures.

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#### **APPENDIX** Variable Definitions

- $PB_t$  Stock price per share divided by the book value per share at the end of the period.
- $NI_{t+1}$  Net income scaled by average total assets for the period t+1.
- $NI_t$  Net income scaled by average total assets for the period.
- $CFO_t$  Cash flow from operating activities scaled by average total assets for the period.
- $\mathbf{REV}_t$  Annual revenue scaled by average total assets for the period.
- $FVA_t$  Fair value measured assets scaled by total assets at the end of the period.
- **LowCF**<sub>t</sub> Indicator variable equal to 1 if  $CFO_t$  is below the median  $CFO_t$  of the sample and 0, otherwise.