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FAIR VALUE ACCOUNTING (FVA) ADOPTION AND ITS INTERACTION WITH COMPANIES' ECONOMIC PERFORMANCEIN BULGARIA AND ALBANIA

GERÇEĞE UYGUN DEĞER MUHAREBESİ'NİN BULGARİSTAN VE ARNAVUTLUK'TA ADAPTASYONU VE FİRMALARIN EKONOMİK PERFORMANSLARINA ETKİLEŞİMİ

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Abstract

The purpose of this study was to show an appropriately stratified and matched sample of public companies from Albania and Bulgaria and to (1) determine whether, , the adoption of fair value accounting (FVA) was associated with improved company performance as measured by four common financial ratios: return on assets (ROA), return on equity (ROE), quick ratio, and debt to equity ratio and (2) test investor enthusiasm about the use of fair value accounting as an intermediate variable. Statistical testing revealed that variation in FVA adoption was not associated with variation in ROA, ROE, quick ratio, and debt to equity ratio performance, and that investors were rarely aware of the use of FVA. The conclusion was that FVA use has not yet been factored into investment decisions made in Albania and Bulgaria.

Keywords: Fair value accounting, ROA, ROE, quick ratio, debt to equity.

JEL codes: M41

Öz

Bu çalışmanın amacı, (1) Arnavutluk ve Bulgaristan'da, gerçeğe uygun değer Muharebesi'nin (FVA) değişik katmandaki şirketlerde benimsenmesi ve kamu şirketlerinin performanslarına etkisinin olduğunu uygun şekilde eşleştirilmiş örneklerle ve su finansal oranlarla gözlemlemek: Aktif getirisi oranı (ROA), öz kaynak getirisi oranı (ROE), likidite oranı ve öz sermaye oranı. (2) Bir ara değişken olarak yatırımının gerçeğe uygun değer muhasebesinin kullanımına istekliliğini test etmek. İstatistiksel testler gerçeğe uygun muhasebenin adaptasyonu surecinde ortaya çıkan değişkenliklerin, Aktif getirisi oranı (ROA), öz kaynak getirisi oranı (ROE), likidite oranı, öz sermaye oranlıdaki performans değişkenliklerle ilgisi olmadığını göstermektedir. Sonuç olarak gerçeğe uygun muhasebenin Arnavutluk ve Bulgaristan'da kullanımı yatırım kararlarının alınmasında henüz etkin değildir.

Anahtar Kelimeler: Gerçeğe uygun muhasebe, Aktif getirisi oranı, öz kaynak getirisi oranı, likidite oranı, öz sermaye oranı.

JEL kodu: M41

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Introduction

The theory of fair value accounting (FVA) suggests not only that FVA is technically superior to historical cost accounting (HCA) but also that FVA has implications for firm management (Barlev & Haddad, 2003). In theory, then, companies that employ fair value accounting should, ceteris paribus, outperform similar companies that do not employ fair value accounting. Over time, the use of fair value accounting should—at least in an efficient market—attract higher levels of investment and foster market confidence, which in turn should be convertible into higher levels of performance than in companies that employ HVA. Conversely, it is possible that fair value accounting does not have implications for firm performance; FVA might be a more transparent and efficient method of accounting, but not one that leads to increases in performance.

The primary purpose of this empirical study is to test the hypothesis that, in an appropriately stratified and matched sample, the adoption of FVA will be associated with improved company performance as measured by four common financial ratios: return on assets (ROA), return on equity (ROE), quick ratio, and debt to equity ratio. This hypothesis was tested by obtaining FVA, ROA, ROE, quick ratio, and debt to equity ratio for 180 publicly-listed companies in Bulgaria and Albania. Bulgaria and Albania were chosen because they are both transitional economies with similar market structures and demographics (Bahmani-Oskooee & Kutan, 2009), yet separated geographically; as such, it is more likely that observed differences between ROA, ROE, quick ratio, and debt to equity in these countries can be associated predominantly with variation in FVA adoption. The secondary purpose of the study was to determine whether investor enthusiasm about the use of fair value accounting in particular, was a plausible intermediate variable in a model of fair value-based performance improvement.

Data Analysis

Country Stratification

One of the difficulties in testing the theory that FVA adoption is a predictor of superior economic performance is to choose a sample of companies that are highly similar to each other, with the main difference lying in FVA adoption. For purposes of this study, three variables were chosen to stratify the sample: Industry, profitability, and revenue. The 180 companies in the sample were deliberately chosen so as to be highly similar to each other in all of these measurements, raising the chances that observed differences in ROA, ROE, quick ratio, and debt to equity ratio would be associated with variation in

FVA adoption. In terms of industry, the sample was perfectly balanced across three industries (manufacturing, telecommunications, and agriculture) and their distribution across the two countries in the sample:

Table 1: *Industry Distribution by Country: Cross-Tabulations and Chi Square*

		Country		Total
		Bulgaria	Albania	
Industry	Manufacturing	30	30	60
	Telecommunications	30	30	60
	Agriculture	30	30	60
Total		**90**	**90**	**180**

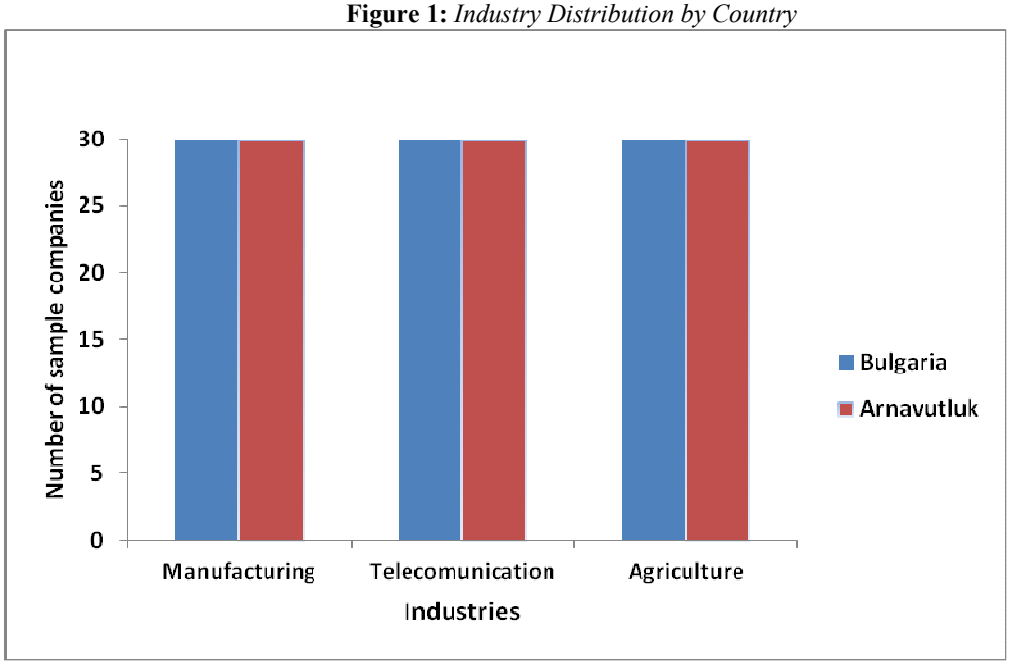
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.000	2	1.000
Likelihood Ratio	.000	2	1.000
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	**180**		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.00.

The Chi-square was not significant ($p = 1$). It can therefore be concluded that industry distribution did not vary at all across the two countries in the sample.

Figure 1: *Industry Distribution by Country*



Chi-square analysis also revealed that the distribution of fair value accounting and non-fair value accounting by countries fit the null hypothesis (p = 1), indicating that the accounting system distribution was perfectly across both Bulgaria and Albania. Chi-square analysis revealed that an equal number of fair value users and non-users were clustered in each industry group (p = 1.) The stratification was thus perfectly balanced in terms of distributing industries and fair value accounting usage across the two countries in the sample.

Finally, Chi-square analysis revealed that ROA, ROE, quick ratio, debt to equity ratio, profitability, and annual revenues were also nearly-perfected distributed across Bulgaria and Albania (with p > .05 for all relevant Chi-square analyses). While it is possible that the companies chosen for analysis differed from each other in other significant ways, it can be concluded that the companies in the sample were highly similar to each other despite variation in country:

Table 2.1: *Country-Based Differences in Measured Variables*

Group Statistics

	Country	N	Mean	Std. Deviation	SE	Sig.
Revenues	Bulgaria	90	**57.91**	**4.156**	1.044	.158
	Albania	90	**60.17**	**4.001**	1.023	
Profit Margin	Bulgaria	90	**2.88**	**3.612**	.844	.918
	Albania	90	**2.76**	**2.831**	.669	
Fair value accounting	Bulgaria	90	.00	.000[a]	.000	--
	Albania	90	1.00	.000[a]	.000	
ROA	Bulgaria	90	5.22	3.797	.895	.530
	Albania	90	4.44	3.552	.837	
ROE	Bulgaria	90	6.11	4.523	1.066	.143
	Albania	90	3.89	4.378	1.032	
Quick Ratio	Bulgaria	90	1.32889	.527360	.124300	.537
	Albania	90	1.43194	.462485	.109009	
D E Ratio	Bulgaria	90	1.41978	.481159	.113410	.722
	Albania	90	1.36150	.494009	.116439	

a. t cannot be computed because the standard deviations of both groups are 0.

Since the Bulgarian and Albanian companies were highly comparable to each other in each of the six performance categories measured in the analysis, it seemed likely that observed differences in ROA, ROE, quick ratio, and debt to equity ratio would be due to variation in FVA adoption. This hypothesis was measured with a series of independent samples t-tests in which the dichotomous sorting variable was FVA adoption and the dependent variables were ROA, ROE, quick ratio, and debt to equity ratio.

Profitability and Revenue Stratification

ROA, ROE, quick ratio, and debt equity ratio can vary extensively depending on the size of a company. Accordingly, an effort was made to stratify the sample so that both fair value users and non-users demonstrated roughly equal profitability and revenue size. Doing so was another means of ensuring that observed differences in ROA, ROE, quick ratio, and debt equity ratio were the result of variations in fair value usage rather than other variables.

Table 2.2: *Fair Value-Based Differences in Profitability and Revenue*

Group Statistics

	Fair value accounting	N	Mean	Std. Deviation	Std. Error Mean
Revenues	No	90	**57.91**	**4.156**	**1.044**
	Yes	90	**60.17**	**4.001**	**1.023**
Profit Margin	No	90	**2.88**	**3.612**	**.844**
	Yes	90	**2.76**	**2.831**	**.669**

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Revenues	Equal variances assumed	.026	.872	-1.444	34
	Equal variances not assumed			-1.444	33.986
Profit Margin	Equal variances assumed	2.438	.128	.103	34
	Equal variances not assumed			.103	32.330

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
Revenues	Equal variances assumed	**.148**	-2.111	1.462
	Equal variances not assumed	**.148**	-2.111	1.462
Profit Margin	Equal variances assumed	**.928**	.111	1.077
	Equal variances not assumed	**.928**	.111	1.077

Since the *p* values for the t-test for equality of means were > .05 for both revenues (p = .148) and profit margin (p = .928), it can be concluded that there was not a significant difference between the mean annual revenue of fair value users (M = $60.17 million, s = $4.001 million) versus non-fair value users (M = $57.91 million, s = $4.156 million) or the mean annual profit margin of fair value users (M = 2.76, s = 2.831%) versus non-fair value users (M = 2.88%, s = 3.612%).

Analysis of Performance Metrics by Fair Value Use

Next, the ROA performance of fair value users and non-fair value users was compared:

Table 3: *Independent Samples T-Test, ROA Performance, Fair Value Users and Non-Fair Value Users*

Group Statistics

	Fair value accounting	N	Mean	Std. Deviation	Std. Error Mean
ROA	No	90	**5.19**	**3.801**	.895
	Yes	90	**4.32**	**3.444**	.837

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
ROA	Equal variances assumed	.002	.967	.635	34
	Equal variances not assumed			.635	33.849

Independent Samples Test

		t-test for Equality of Means			
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
					Lower
ROA	Equal variances assumed	**.542**	.778	1.225	-1.713
	Equal variances not assumed	**.542**	.778	1.225	-1.713

Independent Samples Test

		t-test for Equality of Means
		95% Confidence Interval of the Difference
		Upper
ROA	Equal variances assumed	3.268
	Equal variances not assumed	3.269

The mean ROA of fair value accounting users (M = 4.32, s = 3.444) was statistically indistinguishable from the mean ROA of non-fair value accounting users (M = 5.19, s = 3.801).

The next independent samples t-test compared the mean ROE performance of fair value users versus the mean ROE performance of non-fair value users. The results were as follows:

Table 4: *Independent Samples T-Test, ROE Performance, Fair Value Users and Non-Fair Value Users*

Group Statistics

	Fair value accounting	N	Mean	Std. Deviation	Std. Error Mean
ROE	No	90	**6.02**	**4.115**	1.066
	Yes	90	**3.93**	**4.405**	1.032

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
ROE	Equal variances assumed	.023	.881	1.498	34
	Equal variances not assumed			1.498	33.964

Independent Samples Test

		t-test for Equality of Means			
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
					Lower
ROE	Equal variances assumed	**.146**	2.222	1.484	-.793
	Equal variances not assumed	**.146**	2.222	1.484	-.793

Independent Samples Test

		t-test for Equality of Means
		95% Confidence Interval of the Difference
		Upper
ROE	Equal variances assumed	5.237
	Equal variances not assumed	5.237

The mean ROE of fair value accounting users (M = 3.93, s = 4.405) overlapped with the 95% confidence interval for the mean of ROE of non-fair value accounting users (M = 6.02, s = 4.115). However, the *p* value of the comparison came close to significance (*p* = .146).

The next independent samples t-test compared the mean quick ratio performance of fair value users versus the mean quick ratio performance of non-fair value users. The results were as follows:

Table 5: *Independent Samples T-Test, Quick Ratio, Fair Value Users and Non-Fair Value Users*

Group Statistics

	Fair value accounting	N	Mean	Std. Deviation	Std. Error Mean
Quick Ratio	No	90	**1.44323**	**.566860**	.124300
	Yes	90	**1.47655**	**.468482**	.109009

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Quick Ratio	Equal variances assumed	.594	.450	-.623	34
	Equal variances not assumed			-.623	33.430

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
Quick Ratio	Equal variances assumed	**.522**	-.103056	.165328
	Equal variances not assumed	**.522**	-.103056	.165328

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	Upper
Quick Ratio	Equal variances assumed	-.439043	.232931
	Equal variances not assumed	-.439253	.233142

The mean quick ratio of fair value accounting users (M = 1.48, s = .468) was statistically indistinguishable (p = .522) from the mean quick ratio of non-fair value accounting users (M = 1.44, s = .567).

The next independent samples t-test compared the mean debt to equity ratio performance of fair value users versus the mean debt to equity performance of non-fair value users. The results were as follows:

Table 6: *Independent Samples T-Test, Debt to Equity Ratio, Fair Value Users and Non-Fair Value Users*

Group Statistics

	Fair value accounting	N	Mean	Std. Deviation	Std. Error Mean
D E Ratio	No	90	**1.40043**	**.473663**	.113410
	Yes	90	**1.38836**	**.488171**	.116439

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
D E Ratio	Equal variances assumed	.065	.801	.359	34
	Equal variances not assumed			.359	33.976

Independent Samples Test

		t-test for Equality of Means			
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
					Lower
D E Ratio	Equal variances assumed	**.743**	.058278	.162542	-.272048
	Equal variances not assumed	**.743**	.058278	.162542	-.272056

Independent Samples Test

		t-test for Equality of Means
		95% Confidence Interval of the Difference
		Upper
D E Ratio	Equal variances assumed	.388603
	Equal variances not assumed	.388612

The mean debt to equity ratio of fair value accounting users (M = 1.38, s = .49) was statistically indistinguishable (p = .743) from the mean debt to equity ratio of non-fair value accounting users (M = 1.4, s = .47).

Investor Enthusiasm

The secondary purpose of the study was to determine whether investor enthusiasm, pertaining to the companies in general as well as to the use of fair value accounting in particular, was a significant intermediate variable in a model of fair value-based performance improvement. Investor enthusiasm was conducted by conducting a survey of 180 private and institutional

investors holding stock in one or more of the companies in the sample that used fair value accounting. Before embarking on the analysis of investor enthusiasm, and with the data analysis from ROE, ROA, quick ratio, and debt to equity ratio in mind, the null hypothesis was that investors were not enthusiastic about the use of fair value marketing. In other words, the assumption was that the use of fair value accounting was not being rewarded by investors because they did not know about it. If affirmed, this hypothesis would suggest that use of fair value accounting has not yet been absorbed into the mechanism of efficient markets in Bulgaria or Albania, for a number of possible reasons. It could be the case that investors are insufficiently informed about fair value accounting and therefore are not in a position to reward its use. It could also be the case that investors are aware of the use of fair value accounting, but that they do not see this system as worthy of reward.

To address these questions, a multivariate analysis of covariance (MANCOVA) model was applied. In the MANCOVA model, the predictor variable was use of fair value accounting, the dependent variables were ROA, ROE, quick ratio and debt to equity performance, and the covariate was enthusiasm about fair value accounting. This analysis was focused solely on the companies in the sample that were fair value users.

Table 7: *MANCOVA (DV = Financial Performance Measures, IV = Fair Value Use, Covariate = Enthusiasm)*

Multivariate Tests[a]

Effect			Value	F	Hypothesis df	Error df
Intercept		Pillai's Trace	.970	40.299[b]	4.000	5.000
		Wilks' Lambda	.030	40.299[b]	4.000	5.000
		Hotelling's Trace	32.239	40.299[b]	4.000	5.000
		Roy's Largest Root	32.239	40.299[b]	4.000	5.000
Investor Company 1	Enthusiasm	Pillai's Trace	.516	1.334[b]	4.000	5.000
		Wilks' Lambda	.484	1.334[b]	4.000	5.000
		Hotelling's Trace	1.067	1.334[b]	4.000	5.000
		Roy's Largest Root	1.067	1.334[b]	4.000	5.000
FVA		Pillai's Trace	.000	.[b]	.000	.000
		Wilks' Lambda	1.000	.[b]	.000	6.500
		Hotelling's Trace	.000	.[b]	.000	2.000
		Roy's Largest Root	.000	.000[b]	4.000	4.000

Multivariate Tests[a]

Effect		Sig.
Intercept	Pillai's Trace	.001
	Wilks' Lambda	.001
	Hotelling's Trace	.001
	Roy's Largest Root	.001
Investor_Enthusiasm_Company_1	Pillai's Trace	.373
	Wilks' Lambda	.373
	Hotelling's Trace	.373
	Roy's Largest Root	.373
FVA	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	1.000

a. Design: Intercept + Investor_Enthusiasm_Company_1 + FVA
b. Exact statistic

Table 7 (Continued): *MANCOVA (DV = Financial Performance Measures, IV = Fair Value Use, Covariate = Enthusiasm)*

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F
Corrected Model	ROA	10.719[a]	1	10.719	.530
	ROE	5.393[b]	1	5.393	.228
	Quick Ratio	1.257[c]	1	1.257	7.104
	D E Ratio	.208[d]	1	.208	.905
Intercept	ROA	195.652	1	195.652	9.681
	ROE	206.226	1	206.226	8.706
	Quick Ratio	12.105	1	12.105	68.422
	D E Ratio	8.225	1	8.225	35.749
Investor Enthusiasm	ROA	10.719	1	10.719	.530
	ROE	5.393	1	5.393	.228
	Quick Ratio	1.257	1	1.257	7.104
	D E Ratio	.208	1	.208	.905
FVA	ROA	.000	0	.	.
	ROE	.000	0	.	.
	Quick Ratio	.000	0	.	.
	D E Ratio	.000	0	.	.
Error	ROA	161.681	8	20.210	
	ROE	189.507	8	23.688	
	Quick Ratio	1.415	8	.177	
	D E Ratio	1.841	8	.230	
Total	ROA	464.000	10		
	ROE	543.000	10		
	Quick Ratio	18.001	10		
	D E Ratio	24.354	10		
Corrected Total	ROA	172.400	9		
	ROE	194.900	9		
	Quick Ratio	2.672	9		
	D E Ratio	2.049	9		

Table 7 (Continued): *MANCOVA (DV = Financial Performance Measures, IV = Fair Value Use, Covariate = Enthusiasm)*

Tests of Between-Subjects Effects

Source	Dependent Variable	Sig.
Corrected Model	ROA	.487[a]
	ROE	.646[b]
	Quick Ratio	.029[c]
	D E Ratio	.369[d]
Intercept	ROA	.014
	ROE	.018
	Quick Ratio	.000
	D E Ratio	.000
Investor Enthusiasm Company 1	ROA	.487
	ROE	.646
	Quick Ratio	.059
	D E Ratio	.369
FVA	ROA	.
	ROE	.
	Quick Ratio	.
	D E Ratio	.
Error	ROA	
	ROE	
	Quick Ratio	
	D E Ratio	
Total	ROA	
	ROE	
	Quick Ratio	
	D E Ratio	
Corrected Total	ROA	
	ROE	
	Quick Ratio	
	D E Ratio	

a. R Squared = .062 (Adjusted R Squared = -.055)
b. R Squared = .028 (Adjusted R Squared = -.094)
c. R Squared = .470 (Adjusted R Squared = .404)
d. R Squared = .102 (Adjusted R Squared = -.011)

The MANCOVA model demonstrated that investor enthusiasm about the use of fair value accounting was not a significant (at $p < .05$) intermediating variable between the use of fair value accounting and four measures of financial performance (ROE, ROA, quick ratio, debt to equity ratio). The conclusion to be drawn from this finding was that investors were not rewarding the use of fair value accounting—perhaps because they did not know about it:

Table 8: *Investor Enthusiasm Frequencies*

Investor Enthusiasm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know whether this company uses FVA	94	52.2	52.2	52.2
	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	57	31.7	31.7	83.9
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	29	16.1	16.1	100.0
	Total	180	100.0	100.0	

Figure 2: *Investor Enthusiasm Frequencies*

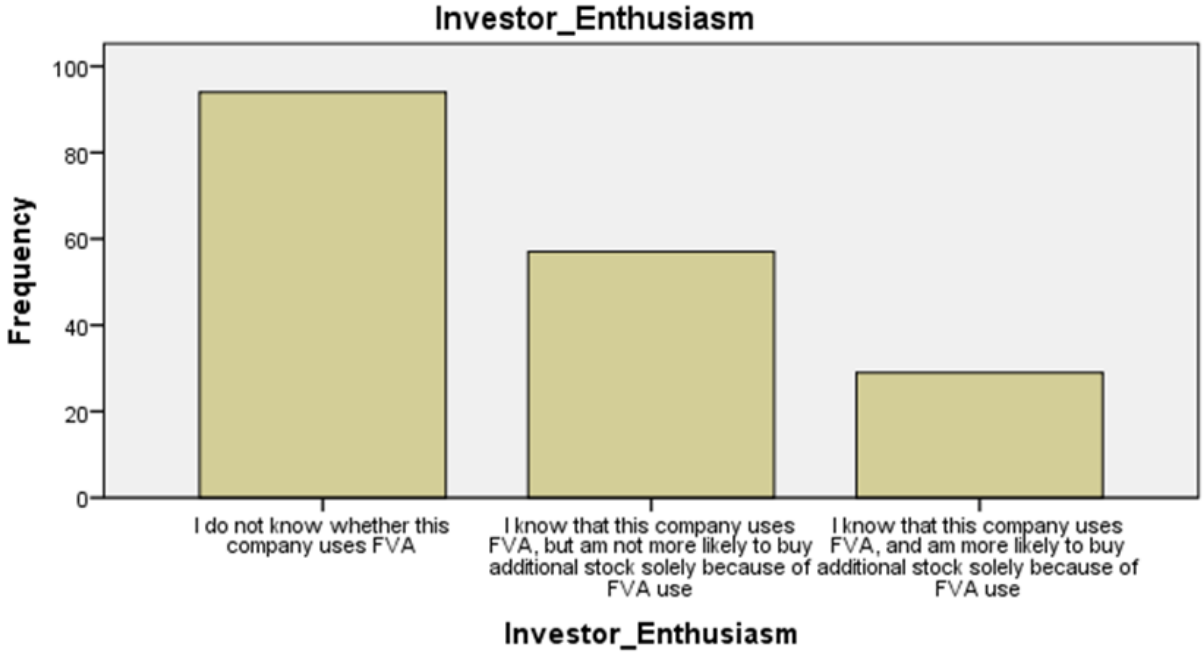


Figure 3: *One-Sample Chi-Square Test, Investor Enthusiasm*

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Investor_Enthusiasm occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It was clear, then, that the categories of investor enthusiasm did not occur with equal probabilities. The score of 0 (not knowing about the use of fair value accounting) predominated.

Table 9: *Financial Performance Means by Investor Enthusiasm about Fair Value Accounting*

Investor Enthusiasm		ROA	ROE	Quick Ratio	D E Ratio
(0) I do not know whether this company uses FVA	Mean	4.11	2.56	1.40633	1.31600
	N	9	9	9	9
	Std. Deviation	3.756	3.539	.478581	.534358
(1) I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	Mean	4.14	6.57	1.39414	1.51443
	N	7	7	7	7
	Std. Deviation	3.625	4.685	.525604	.490450
(2) I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	Mean	7.00	.50	1.67950	1.03100
	N	2	2	2	2
	Std. Deviation	2.828	2.121	.088388	.142836
Total	Mean	4.44	3.89	1.43194	1.36150
	N	18	18	18	18
	Std. Deviation	3.552	4.378	.462485	.494009

In order to determine whether variation investor enthusiasm predicted variation in ROE, ROA, quick ratio, and debt to equity, three independent samples t-tests were conducted: one testing investor group 0 ('I do not know whether this company uses FVA') versus investor group 1 ('I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use'); one testing investor group 1 versus investor group 2 ('I know that this company

uses FVA, and am more likely to buy additional stock solely because of FVA use'); and one testing investor group 0 against investor group 2. The results were as follows:

Table 10: *Independent Samples T-Test, Group 0 versus Group 1*

Group Statistics

	Investor Enthusiasm	N	Mean	Std. Deviation	Std. Error Mean
ROA	I do not know whether this company uses FVA	9	4.11	3.756	1.252
	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	4.14	3.625	1.370
ROE	I do not know whether this company uses FVA	9	2.56	3.539	1.180
	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	6.57	4.685	1.771
Quick Ratio	I do not know whether this company uses FVA	9	1.40633	.478581	.159527
	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	1.39414	.525604	.198659
D E Ratio	I do not know whether this company uses FVA	9	1.31600	.534358	.178119
	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	1.51443	.490450	.185373

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
ROA	Equal variances assumed	.075	.788	-.017	14
	Equal variances not assumed			-.017	13.266
ROE	Equal variances assumed	.541	.474	-1.958	14
	Equal variances not assumed			-1.887	10.898
Quick Ratio	Equal variances assumed	.127	.727	.048	14
	Equal variances not assumed			.048	12.374
D E Ratio	Equal variances assumed	.456	.510	-.763	14
	Equal variances not assumed			-.772	13.538

Table 10 (Continued): *Independent Samples T-Test, Group 0 versus Group 1*

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	**Mean Difference**	**Std. Error Difference**
ROA	Equal variances assumed	.987	-.032	1.865
	Equal variances not assumed	.987	-.032	1.856
ROE	Equal variances assumed	.070	-4.016	2.051
	Equal variances not assumed	.086	-4.016	2.128
Quick Ratio	Equal variances assumed	.962	.012190	.251612
	Equal variances not assumed	.963	.012190	.254783
D E Ratio	Equal variances assumed	.458	-.198429	.260039
	Equal variances not assumed	.453	-.198429	.257079

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	**Upper**
ROA	Equal variances assumed	-4.032	3.968
	Equal variances not assumed	-4.034	3.970
ROE	Equal variances assumed	-8.415	.384
	Equal variances not assumed	-8.705	.673
Quick Ratio	Equal variances assumed	-.527463	.551844
	Equal variances not assumed	-.541079	.565460
D E Ratio	Equal variances assumed	-.756156	.359299
	Equal variances not assumed	-.751577	.354720

There was no significant difference in the ROE, ROA, quick ratio, or debt to equity ratios of companies sorted by investor group 0 (‘I do not know whether this company uses FVA’) versus investor group 1 (‘I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use’). The next t-test was conducted on investor group 1 versus investor group 2 (‘I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use’).

Table 11: *Independent Samples T-Test, Group 1 versus Group 2*

Group Statistics

	Investor Enthusiasm	N	Mean	Std. Deviation	Std. Error Mean
ROA	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	4.14	3.625	1.370
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	7.00	2.828	2.000
ROE	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	6.57	4.685	1.771
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	.50	2.121	1.500
Quick Ratio	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	1.39414	.525604	.198659
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	1.67950	.088388	.062500
D E Ratio	I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use	7	1.51443	.490450	.185373
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	1.03100	.142836	.101000

Table 11 (Continued): *Independent Samples T-Test, Group 1 versus Group 2*

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	**Sig.**	**T**	**df**
ROA	Equal variances assumed	.756	.413	-1.012	7
	Equal variances not assumed			-1.179	2.083
ROE	Equal variances assumed	1.860	.215	1.717	7
	Equal variances not assumed			2.616	4.329
Quick Ratio	Equal variances assumed	6.170	.042	-.730	7
	Equal variances not assumed			-1.370	6.844
D E Ratio	Equal variances assumed	2.784	.139	1.319	7
	Equal variances not assumed			2.290	6.601

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	**Mean Difference**	**Std. Error Difference**
ROA	Equal variances assumed	.345	-2.857	2.824
	Equal variances not assumed	.356	-2.857	2.424
ROE	Equal variances assumed	.130	6.071	3.537
	Equal variances not assumed	.055	6.071	2.321
Quick Ratio	Equal variances assumed	.489	-.285357	.391078
	Equal variances not assumed	.214	-.285357	.208259
D E Ratio	Equal variances assumed	.229	.483429	.366629
	Equal variances not assumed	.058	.483429	.211102

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	**Upper**
ROA	Equal variances assumed	-9.536	3.821
	Equal variances not assumed	-12.902	7.187
ROE	Equal variances assumed	-2.292	14.435
	Equal variances not assumed	-.184	12.326
Quick Ratio	Equal variances assumed	-1.210109	.639395
	Equal variances not assumed	-.780093	.209379
D E Ratio	Equal variances assumed	-.383512	1.350369
	Equal variances not assumed	-.021933	.988790

There was no significant difference in the ROE, ROA, quick ratio, or debt to equity ratios of companies sorted by investor group 1 (‘I know that this company uses FVA, but am not more likely to buy additional stock solely because of FVA use’) versus investor group 2 (‘I know that

this company uses FVA, and am more likely to buy additional stock solely because of FVA use'). The final t-test was carried out on investor group 0 versus investor group 2.

Table 12: *Independent Samples T-Test, Group 0 versus Group 2*

Group Statistics

	Investor Enthusiasm	N	Mean	Std. Deviation	Std. Error Mean
ROA	I do not know whether this company uses FVA	9	4.11	3.756	1.252
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	7.00	2.828	2.000
ROE	I do not know whether this company uses FVA	9	2.56	3.539	1.180
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	.50	2.121	1.500
Quick Ratio	I do not know whether this company uses FVA	9	1.40633	.478581	.159527
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	1.67950	.088388	.062500
D E Ratio	I do not know whether this company uses FVA	9	1.31600	.534358	.178119
	I know that this company uses FVA, and am more likely to buy additional stock solely because of FVA use	2	1.03100	.142836	.101000

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	T	df
ROA	Equal variances assumed	1.199	.302	-1.008	9
	Equal variances not assumed			-1.224	1.901
ROE	Equal variances assumed	3.933	.079	.771	9
	Equal variances not assumed			1.077	2.500
Quick Ratio	Equal variances assumed	5.616	.042	-.773	9
	Equal variances not assumed			-1.594	8.956
D E Ratio	Equal variances assumed	6.669	.030	.720	9
	Equal variances not assumed			1.392	7.647

Table 12 (Continued): *Independent Samples T-Test, Group 0 versus Group 2*

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	**Mean Difference**	**Std. Error Difference**
ROA	Equal variances assumed	.340	-2.889	2.865
	Equal variances not assumed	.351	-2.889	2.360
ROE	Equal variances assumed	.461	2.056	2.667
	Equal variances not assumed	.374	2.056	1.908
Quick Ratio	Equal variances assumed	.459	-.273167	.353479
	Equal variances not assumed	.145	-.273167	.171333
D E Ratio	Equal variances assumed	.490	.285000	.395592
	Equal variances not assumed	.203	.285000	.204762

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	**Upper**
ROA	Equal variances assumed	-9.370	3.592
	Equal variances not assumed	-13.565	7.787
ROE	Equal variances assumed	-3.977	8.088
	Equal variances not assumed	-4.765	8.877
Quick Ratio	Equal variances assumed	-1.072792	.526458
	Equal variances not assumed	-.661039	.114705
D E Ratio	Equal variances assumed	-.609890	1.179890
	Equal variances not assumed	-.191003	.761003

There was no significant difference in the ROE, ROA, quick ratio, or debt to equity ratios of companies sorted by investor group 0 (‘I do not know whether this company uses FVA’)

versus investor group 2 (‘I know that this company uses FVA, and is more likely to buy additional stock solely because of FVA use’).

Discussion and Conclusion

The purpose of investment is to acquire profit; in the search for such profit, investors look for pertinent information to guide business decisions. Information is not perfectly distributed and advantage can be conferred by obtaining and acting on information whose importance is not yet understood by other investors (Figlewski, 1982). Based on the empirical analysis conducted in this study, it seems that—at least in a sample of Bulgarian and Albanian companies—the use of fair value accounting is not sufficiently known to investors for such information to drive investor

enthusiasm and therefore begin the cycle of market rewards, incentives, and performance improvement at companies that use fair value accounting. What is not clear is whether, when investors learn more about the use of fair value accounting in companies in their portfolio, this knowledge will result in an increased tempo of stock purchases. It is possible that, because of the innate efficiencies of fair value accounting and the possibility that this system will influence performance through superior management accounting, the use of fair value accounting will eventually predict superior performance against similar companies that do not use fair value accounting. In that case, acquiring stock in fair value-using companies in Bulgaria and Albania could confer an advantage to investors.

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