International Journal of Economics and Financial Issues
Vol. 1, No. 2, 2011, pp.33-45
ISSN: 2146-4138
www.econjournals.com

Value Relevance of Accounting Information in the United Arab Emirates

Jamal Barzegari Khanagha
Faculty of Economics, Management and Accounting, Yazd University, Iran
E-mail: barzegari@yazduni.ac.ir Tel: +989131519858

ABSTARCT: This paper examines the value relevance of accounting information in per and post-periods of International Financial Reporting Standards implementation using the regression and portfolio approaches for sample of the UAE companies. The results obtained from a combination of regression and portfolio approaches, show accounting information is value relevant in UAE stock market. A comparison of the results for the periods before and after adoption, based on both regression and portfolio approaches, shows a decline in value relevance of accounting information after the reform in accounting standards. It could be interpreted to mean that following to IFRS in UAE didn't improve value relevancy of accounting information. However, results based on and portfolio approach shows that cash flows' incremental information content increased for the post-IFRS period.

Keywords: Value Relevance, IFRS, Accounting Information, UAE

1. Introduction

Over the last three decades, the world economy and capital markets have become increasingly globalized and integrated. In this respect, the benefits of having one set of high-quality globally recognized financial reporting standards are significant. Since convergence and harmonization of national Generally Accepted Accounting Principles with International Financial Reporting Standards (IFRS) promises "transparent, comparable and consistent financial information" to guide investors in making "optimal investment decisions" (Jacob & Madu, 2004). The harmonization of accounting standards is also absolutely vital to building long-term global financial stability, creating truly international capital markets and providing full transparency for credit management(Hansen, 2003).

The United Arab Emirates (UAE), currently launching itself onto the world financial stage with the setting up of a stock exchange and actively pursuing foreign direct investment (FDI) by embracing globalization, and adopting IFRS (Irvine & Lucas, 2006). Wagdy (2001) asserts that investors' need for *reliable* and *relevant* financial information has been the key factors of accounting reform in the Middle East. These two factors protect domestic and foreign investors from any fraud or misleading financial data. Value relevance approach measures both relevance and reliability because accounting information is reflected in the price (Barth, Beaver, & Landsman, 2001). however, value relevance approach is an instrument to estimate quality of accounting information, which is a prime importance to the well-functioning of the economy (Beuselinck, 2005).

Despite all efforts to develop in financial markets, accounting and economic growth, a crucial gap in the literature remains: to the best of our knowledge, there is no empirical research to identify the effect of accounting standards reforms on value relevance of accounting information in the UAE. Consequently, this study aims to investigate the value relevance of accounting information in UAE. In particular, it measures whether the quality of accounting information has improved or whether it has not yet become relevant despite all efforts.

The reminder of this paper is organized as follows. Continuance of this section contains background and literature review and followed by a review accounting in UAE. The second section related to methodology subjects and selecting data and sample. The third section discusses research findings. Summary and discussions are presented in the final section.

www.manaraa.com

1.1. Background and Literature Review

A value relevance study is evaluation of the relationship between accounting information and capital market values (market values). Beaver (2002) indicated that the theoretical groundwork of value relevance studies adopting a measurement approach is a combination of valuation theory plus contextual accounting and financial reporting arguments (accounting theory) that allows the researcher to predict how accounting variables and other information relating to market value will behave. Holthausen and Watts,(2001) suggest that value relevance studies use two different theories of accounting and standard setting to draw inferences: (i) "direct valuation" theory and (ii) "inputs-to equity-valuation" theory. Direct valuation theory proposes a link between accounting earnings and stock market value. In direct valuation theory, accounting earnings is intended to either measure or be combined with the equity market value changes or levels. However, Zaleha et al. (2008) point out that the conclusion usefulness paradigm proposes that accounting information is useful if utilized by users of financial statements for, or significantly associated with their decision making (Riahi Belkaoui, 2000) even though the information might not be stated at their best current value (Scott, 2000). Within this conception, the main users are those who make decisions having an impact on firms' value, specifically decision-making by capital market participants (Beaver, 2002; Riahi Belkaoui, 2000). In discussing the concept of relevance with regard to accounting information, Riahi-Belkaoui (2000) believes that accounting information is relevant if the information can influence decisions made by decision makers (i.e., its value relevance concept).

Studies seeking to demonstrate a link between accounting numbers and equity values were first published over 40 years ago. The first such article was by Miller and Modigliani (1966), which used data from the electricity industry to demonstrate that capitalized earnings on assets make the largest contribution to marketplace value. Ball and Brown (1968) and Beaver (1968) are generally recognized as the fundamental studies on the information value of accounting numbers. Ball and Brown showed that the information content of the earnings figure is related to stock prices, and Beaver observed both price and volume reactions to earnings reports.

Numerous value relevance studies have established, one stream of literature focuses on whether the value relevance of accounting information has declined/increased over time. Prior research provides conflicting views. On the one hand, several prior literatures have found that the value relevance of accounting information has declined in recent years (Core, Guay, & Van Buskirk, 2003; Ely & Waymire, 1999; Francis & Schipper, 1999; Graham & King, 2000; Ho, C-S Liu, & Sohn., 2001; Lev & Zarowin, 1999; Marquardt & Wiedman., 2004; Thinggaarda & Damkierb, 2008). On the other hand, A number studies also have been carried out in recent years that showed value relevance of accounting information has increased. Qystein and Frode, (2007) evaluated the relevance of financial reporting over a relatively long period (over 40 years). Their research results showed that the value-relevance of Norwegian GAAP was non-declining throughout 1965 to 2004. Dung (2010) tested the value-relevance of financial statement information on the Vietnamese stock market. The results showed that the value relevance of accounting was statistically meaningful, though somewhat weaker than in other developed and emerging markets. Filip (2010) investigated the impact of the mandatory IFRS adoption on the value relevance of accounting in Romania. Findings suggest that the implementation of IFRS increased the value relevance of earnings.

Aljifri and Khasharmeh (2006) investigated empirically the suitability of the international accounting standards (IASs) to the United Arab Emirates (UAE) environment. They used a variety of parametric and nonparametric approaches to examine the underlying factors that could affect the level of adoption of IASs and to evaluate the suitability of such adoption to the UAE environment (e.g. size of company, trading status, type of sector).The study found that there is a general consensus among the user groups (auditors, brokers, finance managers, and financial analysts) on the suitability of adoption of IASs in the UAE.

In all of research studies that have been carried out there are no mention of the value relevance of accounting information in the UAE. To the best of our knowledge, there is no empirical research also that uses regression-variations and the portfolio-returns approaches to test of value relevance in this country. Therefore, an evaluation of the value relevance of accounting information, especially after changes in the economic and accounting environment in recent years is an important area to research.

www.manaraa.com

1.2 Accounting in UAE

There are three main regulatory authorities in the UAE corporate sector: the ministry of economy and planning, the central bank, and the emirates securities and authority of raw materials. In addition, the accountants and auditors association is the official body representing the accounting profession in the country. The compulsory disclosure requirements of state enterprises that each company must prepare financial statements, balance sheets, cash flow statements, statements of changes in capital, and the notes to the accounts. It should be noted that in the UAE, companies preparing their annual reports within two to three months of the end of fiscal year (Khaled Aljifri & Hussainey, 2007).

According to Central Bank Circular No 20/99, banks, financial institutions and investment companies in the UAE are required to prepare their financial statements in accordance with the International Accounting Standards (IASs) with effect from January 1, 1999. In 2004, the UAE established the Dubai International Financial Centre (DIFC), which is an onshore capital market designated as a financial free zone. In 2006, the DIFC legal framework requires banks and companies listed on the Dubai International Foreign Affairs (DIFX) to implement International Financial Reporting Standards (IFRS). all companies listed on market in Abu Dhabi (ADSM) are required to publish IFRS financial statements since 2003 (Khaled Aljifri, 2008; Deloitte, 2007).

2. Methodology

In this study, the regression-variations and the portfolio-returns approaches was used to investigate and to operationalize the value relevance of accounting information. It was because they provide different perspective on the issue of value relevance of accounting information. By using the regression-variations approach, we measured the value relevance as the percentage of variations in the returns or market value explained by the accounting figures. Portfolio-returns approach shows a portion of total returns that could be earned from financial statement information which control for changes in the volatility of market returns over time.

2.1. Regression-Variations Approach

A regression-variations approach measures value relevance based on the explanatory power of accounting information as a measure of market value; the ability of earnings to explain annual market-adjusted returns (return model); and the ability of earnings and book values of equity to explain market values of equity (price model).

2.1.1 Earning Return Model

A large volume of literature has examined the usefulness of earnings information by employing a market return model (Chen.C. J, Chen. S, & Su. X, 2001; Harris, Lang, & Peter, 1994). In particular, the return model developed by Easton and Harris (1991) has been immensely popular amongst value-relevance researchers (Ali & Zarowin, 1992; Amir, Harris, & Venuti, 1993; Chan & Seow, 1996; Chen.C. J et al., 2001; M. S. Harris & K. A. Muller, 1999; Harris et al., 1994; Haw & Qi, 1999), because it incorporates both earnings level and earnings changes as independent variables in explaining the dependent variable: annual market return on stock. The present study used Easton and Harris (1991) model with adjustments and suggested by Biddle et al. (1995) and used in subsequent research(M. Harris & K. Muller, 1999; Jun Lin & Chen, 2005; Kothari, 2000).

$$Rjt = \beta0 + \beta1\ EPSjt / Pjt\text{-}1 + \beta2\ (EPSjt - EPSjt\text{-}1) / Pjt\text{-}1 + e_{jt}$$

Rjt: *annual return (including cash dividends) of firm j shares for period t*
Pjt-1*: stock price at date of accounting announcement for firm j during period t*
EPSjt*: annual earnings per share for firm j during period t*
EPSjt – EPSjt-1*: change annual earnings per share for firm j from period t-1 to t*
ejt*: error term*

2.1.2. Price Model

Following numerous prior value-relevance studies (Amir et al., 1993; M. E. Barth, 1994; Burgstahler & Dichev, 1997; Filip & Raffournier, 2010; M. S. Harris & K. A. Muller, 1999; Landsman, 1986), a price model has also utilized in this study in addition to the return model. Unlike the return model, the price model investigates the impact of accounting information on the market valuation of, rather than return on, equity stock; furthermore, a price model examines the impact of not

www.manaraa.com

only earnings but also book value of equity on stock performance. Traditionally, earnings and book values are considered to contribute to value relevance (Burgstahler & Dichev, 1997; Ohlson, 1995). Currently, however, the main financial statements include income statement, balance sheet and cash flow statement. Thus the study used the model that shows all of the main financial statement as follows:

$$P_{jt} = \beta_0 + \beta_1 BVPS_{jt} + \beta_2 EPS_{jt} + \beta_3 CFPS_{jt+} \ e_{jt}$$

***Pjt**: the market price per share of firm j at time t*
***BVPSjt**: book value of firm j at time t*
***EPSjt**: earnings of firm j for period ending at time t*
***CFPSjt**: Cash flow of firm j for period ending at time t*
***ejt** : error term*

2.2. Portfolio-Returns Approach

The portfolio-returns approach defines the value relevance of accounting measures as the proportion of information in security returns captured by the accounting measures (Alford, Jones, Leftwich, & Zmijewski., 1993; Chang, 1998; Francis & Schipper, 1999; Hung, 2001) . Thinggaarda and Damkierb (2008) further defined value relevance as the difference between the return on the long position and the return on the short position; that is, the market-adjusted return that can be earned on the long position and the market-adjusted return that can be lost on the short position. This approach measures value relevance as the total return that could be earned from a portfolio based on perfect foresight of earnings. Value relevance is scaled by the total return earned on a portfolio based on advance knowledge of market prices. In this study, this approach attempts to calculate the proportions of all information in security returns that are captured by the earnings, ROE and cash flows. This method aims to provide the evidence of value relevance of earnings, ROE and cash flows by forming the hedge portfolio based on this information. This study used two portfolios a) a portfolio selection based on sign (SIGN-ΔEARN, SIGN-ΔROE, SIGN-ΔCF); and b) a portfolio selection based on sign and magnitude (ΔEARN, ΔROE and ΔCF).

2.2.1 Portfolio Selection Based on Sign (SIGN-ΔEARN)

The Portfolio-Returns Approach is based on Alford et al. (1993), Francis and Schipper (1999), Hellstrom (2006) and Thinggaarda and Damkierb (2008). As an example, following is the procedure for selecting a portfolio based on sign of changes in EARN. First, an earnings-based hedge portfolio is created. The primary Firm-specific return (Pit-Pit-1+d)/Pit-1 is calculated for all firms over a 15 month period. The market-adjusted return on security j, R,t , is defined as the compound (with dividend) return minus the return on the value-weighted market portfolio for each year sample (The study uses all share index return). All companies in the total sample are ranked according to the change in accounting earnings. The change in accounting earnings is calculated on a year basis. A hedge portfolio is formed by going long in shares with positive earning changes and short in shares with the negative earning changes. The market-adjusted return is later calculated for both the long position and short position as an average of returns for all companies included in the long short positions, respectively:

$$R_L = \sum_{j=1}^{N_L} \frac{R_j}{N_L} \qquad R_S = \sum_{j=1}^{N_S} \frac{R_j}{N_S}$$

Where Rj is a market-adjusted return for an individual company and N_L and N_S are the number of companies in the long position and in the short position, respectively. Note that N_L and N_S are equal. The hedge portfolio return (value relevance) is defined as the difference between the return on the long position and the return on the short position: that is, the market-adjusted return that can be earned on the long position and the market-adjusted return that can be lost on the short position:

$$R_H = R_L - R_S$$

Second, for each accounting-based hedge portfolio and year, the market-adjusted returns on a portfolio formed on the basis of perfect foreknowledge of future stock returns are calculated. This portfolio takes long (short) positions in the stocks in each accounting-based hedge portfolio with positive (negative) 15-month market-adjusted returns. The market-adjusted return on this returns-

www.manaraa.com

based hedge portfolio in year t is denoted R^H_t , where H is the type of accounting hedge portfolio. The accounting-based hedge portfolio returns are expressed as a percentage of R^H_t . This controls for time-series differences in the variation in market-adjusted returns (Francis & Schipper (1999) , and the resulting ratio (denoted %mkt) describes the proportion of all information impounded in stock prices that is captured by accounting information in a given period (Thinggaarda & Damkierb, 2008).

2.2.2 Portfolio Selection Based on Sign and Magnitude

As mentioned above, Portfolio Selection based on sign and magnitude applies to ΔEARN, ΔROE and ΔCF. following is a description for calculating the value relevance of earning with this method. The method for calculating other factors with the same ROE and cash flow is similar. The primary calculations of market-adjusted returns are similar, based on the sign of accounting information. For example, for the ΔEARNjt portfolio, we take long positions in the stocks with the highest 40% of $\Delta EARN_{j,t}$ and short positions in the stocks with the lowest 40% of $\Delta EARN_{j,t}$, thereby disregarding the middle 20%. Thus, both the sign and the strength of the change in earnings are extracted from the total available information in financial statements. The market-adjusted return is afterwards calculated for both the long position and short position as an average of returns for all companies included in the long short positions, respectively. The hedge portfolio return (value relevance) is defined as the difference between the return on the long position and the return on the short position: that is, the market-adjusted return that can be earned on the long position and the market-adjusted return that can be lost on the short position.

2.3. Data and Sample

The Data for this study were obtained from the Gulfbase database, the stock exchange website of the Abu Dhabi stock market (ADSM) and other database such as Bloomberg and DataStream. Observations were compared across data sources for data accuracy. The study limit to this period and select Abu Dhabi Securities Markets since a) Abu Dhabi Securities Market (ADSM) started operating in November 2000, b) ADSM is larger than The Dubai Financial Market (Khedhiri & Muhammad, 2008; Moustafa, 2004), c) all companies listed on the Abu Dhabi Securities Markets (ADSM) are required to publish IFRS financial statements since 2003 (Aljifri, 2008; Deloitte, 2007) and d) and because of availability of data. The UAE sample is selected from the period 2001-2008 based on following criteria. The number of companies selected was based on several criteria. First, since this study investigates the effects of accounting reform on value relevance of accounting information. It was necessary to have companies in existence both before and after the reform in order to examine the effect of the reform on the value relevance of accounting information. Therefore, companies that were listed just before or just after the reform were excluded. Second, for most companies in UAE the fiscal year ends of December. Since it was necessary to have common period for the calculation of stock returns accumulation across all the sample companies, whose fiscal years ended at some time other than December were excluded from the sample. Pursuant to the application of these selection criteria,, the final samples for UAE consisted of 136 firm-year observations for price model(17 companies for 8 years) and 119 firm-year observations for return model and also portfolio approach (17 companies for 7 years).

3. Research Findings

3.1. Descriptive Statistics

Table 1 provides descriptive statistics for all the variables used in the regression analyses of UAE Data. The average per share market value of equity is 5.25UD for eight-year period with mean yearly standard deviation of 4.49UD. This show Investor obtained an average annual 0.362 market return during this seven -year period with an annual mean standard deviation of 1.04. The sample shows the high standard deviation in the dataset, which confirms the variability of firm's size and industry classification traded in the Abu Dhabi stock market. Panel b and c show this situation was worse in the pre-reform period. Comparing standard deviations EPS, CFP and BVP show BVP has less standard deviation than the mean and others variables. It means better distribution than the other.

www.manaraa.com

Table 1 Descriptive Statistics

Name of variables	N	mean	Std. Dev.	median
Panel A: Full Sample (2001,2-2008)				
P3 (Market price per share of firm)	136	5.25	4.49	3.945
EPS (Earning per share)	136	.39	.43	.26
BVP (Book value of equity-per share)	136	2.73	2.46	1.98
CFP (cash flow per share)	136	.344	.93	.2
R (annual return)	119	.362	1.04	.145
EPS/P (Earning per share / price)	119	.078	.057	.069
ΔEPS(change annual earnings per share)	119	.016	.063	.0127
Panel B: Before reform				
P3 (Market price per share of firm)	34	2.26	1.42	2.08
EPS (Earning per share)	34	0.16	0.15	0.13
BVP (Book value of equity-per share)	34	1.38	1.11	1.11
CFP (cash flow per share)	34	0.28	0.39	0.14
R (annual return)	17	0.11	0.18	0.09
EPS/P (Earning per share / price)	17	0.06	0.03	0.07
ΔEPS(change annual earnings per share)	17	0.00	0.04	0.00
Panel C: After reform				
P3 (Market price per share of firm)	102	6.25	4.73	5.37
EPS (Earning per share)	102	0.47	0.47	0.31
BVP (Book value of equity-per share)	102	3.19	2.62	2.41
CFP (cash flow per share)	102	0.36	1.05	0.24
R (annual return)	102	0.34	0.81	0.21
EPS/P (Earning per share / price)	102	0.08	0.06	0.07
ΔEPS(change annual earnings per share)	102	0.02	0.07	0.01

**All data are based on UAE's dirham (UD)*

3.2. The Inferential Findings

As mentioned earlier, the objectives of this study are to examine value relevance of accounting information, and to compare the value relevance between two regimes in two periods. To operationalize value relevance of accounting information, two empirical valuation approaches are employed: the regression-variations approach and the portfolio return approach. Because these two approaches together provide different perspectives on the issue of value relevance of accounting information.

3.2.1 Regression-Variations Approach

Result of coefficient test (redundant variables test and omitted variable test) for UAE suggests price model with two variables (see below of Table 2). Redundant variables test suggests the dropping of CFP variable from model with three variables (.1671>.05). Result of omitted variable test does not advise adding CFP variable to price model with two variable to increases the explanatory power of the model (.4245<.05).

The first panel of Table 2 shows that the R^2 for the price model specification is 76.6% for the total sample and just coefficient of EPS is statistically significant. Comparison of coefficients indicates that EPS of 4 has a higher explanatory power than any other variable. Therefore, according to price model accounting information in the Abu Dhabi Securities Market (ADSM) is value relevant.

A comparison of the two results for before and after reform based on price model, demonstrates that the explanatory power (R^2) for the period before reform is more than the period after reform. It means value relevance of accounting numbers decreased in the period after reform. Consequently, the result indicates reform in accounting standards did not improve relevancy of accounting numbers in Abu Dhabi Securities Market. In panel B of Table 2 provides the results of the return model. Explanatory power (R^2) for the return model specification is 30.3% for the total sample. Therefore, according to these results it can be concluded that EPS level and changes EPS information in Abu Dhabi Securities Market are relevant for investors in their decision making. A comparison of explanatory power (R^2) accounting numbers for the return model indicates decreasing of that in the period (2003-2008), after

www.manaraa.com

reform in accounting standards. So, the result of the return model also indicates reform in accounting standards did not improve relevancy of accounting numbers in Abu Dhabi Securities Market.

Table 2 Result of Regression-Variations Approach

Panel A: Price Model										
Years	$p_{it}=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$					$p_{it}=ß_0+ß_1bvp_{it}+ß_2eps_{it}+ ß_3cfp_{it}+e_{it}$				
	$ß_0$	$ß_1$	$ß_2$	R^2	N	$ß_0$	$ß_1$	$ß_2$	$ß_3$	R^2
2001- 08	2.97	.22	4	.766	136	2.8	.22	4.1	.41	.77
t-st.	3.4***	.69	7.8***			3.38***	.7	8.6***	2.9***	
2001- 02	.71	.19	7.7	.875	34	.68	.3	7.4	-.28	.90
t-st.	6.7***	2.2**	44***			7***	5.2***	14***	-7***	
2003-08	2.6	.06	5.6	.45	144	2.59	.02	5.4	.81	.51
t-st.	5.5***	.49	15***			6.2***	-.23	15***	3.9***	
Panel B: Return Model										
Years	$R_{it}= ß_0+ß_1eps_{it}/p_{it-1}+ß_2(eps_{it}- eps_{it-1})/p_{it-1} +e_{it}$									
	$ß_0$	$ß_1$	$ß_2$	R^2	N					
2001-08	.03	2.4	3.7	.303	119					
t-st.	.17	1.74**	2.11**			Coefficient Tests of CFP		Prob.f		
2002	-.08	3.2	-.64	.302	17	Redundant Variables		.1671		
t-st	-.9	2.34**	-.63			Omitted Variables		.4245		
2003-08	.12	1.5	5.3	.282	102					
t-st	.4	.66	1.73*							

Notes:
***, **, * indicates significance at 0.01, 0.05 and 0.10 levels
T-statistics based on White heteroscedasticity-consistent standard errors.
*for full sample of return model is used GLS with Cross Section Weight
* For full sample of both price model are used GLS with Fixed cross section
and for sub-samples of price model are used GLS with Cross Section Weight.

3.2.2 Portfolio-Returns Approach

Panel A (second column) of table 3 presents results for each year in the investigated period, the mean market-adjusted return on each accounting hedge portfolio (%). The value 19.4 in below ΔEARN for year 2002 means person could earn 19.4 percent net market-adjusted (long position minus short position) in year 2002 if sign of earning changes was used to construct a portfolio. Since this is more than zero it can be concluded that earning changes is relevant for investors to make well-informed decisions. A comparison of these numbers, ΔEARN (19.4%), ΔROE (15.1%) and ΔCFP (-4.4%) for year 2002 shows that cash flow information isn't relevant for investors in making investment decisions while earnings and ROE information are relevant for investors. This also indicates present earning with (19.4%) is more relevant than the ROE with (15.1%). The value 58.1 under ΔEARN for year 2002 as % mkt ratio indicate that about 58.1% of the total perfect foresight returns are available to investors with advance knowledge of the sign of the earnings change.

Panel B of table 3 reveals mean market-adjusted returns on accounting hedge portfolio (%) and that a proportion of the total hedge portfolio market-adjusted returns can be earned by the per-knowledge of the accounting information (%mkt) for the investigated period. The results in column of based on the sign; clearly demonstrate that foreknowledge of information in the financial statements would be highly relevant for investors. Investment strategies based on a preview of the sign of the change in ROE would earn an average market-adjusted return throughout the sample period of about 30.1%, compared with 17.4% for the ΔEARN portfolio and 3.9% for the ΔCASH portfolio. On the other word, all the accounting measures seem to be value-relevant to investors.

www.manaraa.com

The results in second and third line under sign and magnitude (panel B) indicate that accounting information are value-relevant in both period before (2002) and after reform (2003-2008) in Abu Dhabi Securities Market (ADSM). In first period value relevance of SIGN_ΔEARN is more than the others while in second period SIGN_ΔROE information is more relevant than others. A comparison of result of SIGN_ΔEARN shows that value relevance of accounting information has decreases in Abu Dhabi Securities Market stock exchange after accounting reform in this market. While the results based on SIGN-CASH and SIGN_ΔROE show increase in value relevance for the period after reform.

Panel A (first column) of Table 3 shows, for each year in the investigated period, the mean market-adjusted return on each accounting hedge portfolio (%). The value 33.5 under ΔEARN column for year 2002 means person could earn 33.5 percent net market-adjusted return (long position minus short position) based on sign and magnitude of earning changes. Since this is more than zero we can conclude earning information is relevant for investors on the Abu Dhabi Securities Market (ADSM) at year 2002. A comparison of numbers, ΔEARN (33.5 %), ΔROE (21.8%) and ΔCFP (-2.2%) in first line of panel A of Table 3 for year 2002 show that ΔEARN (33.5%) are more relevant than any others variable for investors. They also show present earning and ROE with 33.5% and 21.8% are more relevant than the cash flow with (-2.2%). The value 92.1 under ΔEARN for year 2002 as %mkt ratio indicates that about 92.1 % of the total market adjusted returns are available to investors with advance knowledge of the sign and magnitude the earnings change. A comparison of the numbers in line for year 2002 demonstrate that earnings and ROE changes are relevant while cash flow is not value relevance for investors in making decision.

Table 3 Portfolio-Returns Approach

Panel A: Mean market-adjusted returns on accounting hedge portfolio (%) and proportion of the total hedge portfolio market-adjusted returns can be earned by the per-knowledge of accounting information(%mkt)2002-2008.

	Based on Sign & Magnitude						Based on Sing					
	ΔEARN		ΔROE		ΔCFP		ΔEARN		ΔROE		ΔCFP	
Year	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt
2002	33.5	92.1	21.8	52.3	-2.2	-5.4	19.4	58.1	15.1	45.1	-4.4	-13.3
2003	10.9	27.7	24.7	62.9	-4.2	-10.7	21.5	64.1	21.5	64.1	-7.3	-21.7
2004	127.3	67.0	126.1	66.4	-18.4	-9.7	-34.8	-22.6	114.	74.0	-11.1	-7.2
2005	19.5	22.4	31.0	35.7	11.1	12.8	30.5	42.4	-10.7	-14.8	-3.2	-4.5
2006	2.3	5.8	-4.6	-11.4	5.4	13.3	0.8	2.4	12.6	37.9	2.2	6.7
2007	-16.8	-15.4	8.7	7.9	-53.9	-49.4	49.4	49.2	46.5	46.3	-45.9	-45.8
2008	-5.3	-12.6	14.4	34.0	25.6	60.7	-3.3	-9.5	1.2	3.5	25.0	72.2

Panel B: Mean market-adjusted returns on accounting hedge portfolio (%) and proportion of the total hedge portfolio market-adjusted returns can be earned by the per-knowledge of accounting information (average for full sample, before and after reform)

	Based on Sign						Based on Sing & Magnitude					
	ΔEARN		ΔROE		ΔCFP		ΔEARN		ΔROE		ΔCFP	
Year	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt
2002-08	27.6	30.7	31.9	35.9	3.9	11.4	17.4	30.9	30.1	38.7	3.9	11.3
2002	33.5	92.1	18.4	44.2	0.3	0.9	19.4	58.1	15.1	45.1	0.0	0.0
2003-08	26.7	20.5	34.1	34.5	4.5	13.2	17.0	26.4	32.6	37.6	4.5	13.2

Panel B of Table 3 shows mean market-adjusted returns on accounting hedge portfolio (%) and proportion of the total hedge portfolio market-adjusted returns can be earned by the per-knowledge of accounting information (%mkt) for the investigated period. The results in column based on the sign and magnitude, clearly demonstrate that foreknowledge of information in the financial statements would be relevant for investors. Investment strategies based on a preview of the sign and magnitude of the change in earnings (ΔEARN) would earn an average market-adjusted return

www.manaraa.com

throughout the sample period about 27.6%, compared with 31.9% for the ΔROE portfolio and 3.9% for the ΔCASH portfolio. What is interesting in this comparing is that ΔROE portfolio has higher relevancy. So, the results show all of the accounting numbers are value relevance. Investments based on accrual-based information are more profitable. The accrual-based information is more value-relevance than cash based information. The results in second and third column reveal that accounting information are value-relevant in both periods before (2002) and after reform (2003-2008) in the Abu Dhabi Securities Market (ADSM). In first period relevancy of ΔEARN information is more than any others variable while in second period (after reform) relevancy of ΔROE information is more than others. A comparison of results of accounting numbers for two periods show value relevance of ΔEARN and ΔROE decrease after reform. While the results based on ΔCASH shows that value relevance of accounting information increases.

3.3 Control Variables (Size and Industry Effects)

First and second parts of the Table 4 show the result of value relevance in small and large companies and results for finance and non finance companies. The explanatory power of model for small companies' specification is 32% for the total sample and all coefficients are statistically significant. A comparison of coefficients indicates that the full model EPS with 3.5 has a higher explanatory power than the other variables. Further analysis reveals value relevance of accounting information in small companies (R^2 = *32%*) is less than the full sample (R^2 = *76.6%*). A comparison of the two results for before and after reform in small companies demonstrate explanatory power (R^2) of accounting information decrease from 88% before reform to 39% after reform.

It can be seen from Table 4 that in the case of large companies, the value relevance of accounting information for these companies (R^2 = *47%*) is less than for small companies (R^2 = *58%*) and also less than that of the full sample (R^2 = *766%*). Comparing the two results for before and after of reform, it can be seen that value relevance of accounting number decrease from *91%* before reform to *37%* after reform. Consequently, the results indicated that there is a difference in value relevance of accounting information between large and small companies in Abu Dhabi Securities Market (ADSM). The magnitude and frequency of the transitory elements of accounting information can, and are expected to, vary systematically across industries. Therefore, value relevance of accounting information is different in various industries. For Abu Dhabi Securities Market sample finance companies are chosen because they are the majority in our sample and accounting regulations commonly is different in finance companies compare with other industries.

Table 4 Result of Regression Approach based on firm size and industry

	$p_{it}=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$			$p_{it}=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$			$p_{it}=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$		
years	**2001- 2008**			**2001-2002**			**2003-2008**		
	$ß_0$	**$ß_1$**	**$ß_2$**	**$ß_0$**	**$ß_1$**	**$ß_2$**	**$ß_0$**	**$ß_1$**	**$ß_2$**
Small companies	1.9	.515	3.5	.11	1.7	-2	3.2	.29	2.95
t.st.	3***	2.9***	4.6***	1.9	41***	-4.6***	3.8***	1.49	4.5***
R^2	**.58**			**.88**			**.39**		
N	4	32		4	8		4	24	
large companies	5	-2.27	17.3	1.48	-1.7	17	7.6	-2.3	15.4
t.st.	2.5**	-5.2***	.5	11***	-7***	14***	3***	-5.4***	7.2***
R^2	**.47**			**.91**			**.37**		
N	4	32		4	8		4	24	
Finance companies	3.3	2.5	20	.65	.09	9.1	4.4	-2.7	20
t.st.	3.3***	-3.5***	10***	3.7***	.15	3.1***	4***	-3.3***	8***
R^2	**.62**			**.86**			**.61**		
N	6	48		6	12		6	36	
Non finance companies	2.7	.36	3.23	1.23	.16	5.69	3.2	.067	5.3
t.st.	3.4***	1.45	6.4***	3.6***	1.38	4.4***	4.9***	.414	6***
R^2	**.758**			**.53**			**.397**		
N	11	bb		11	22		11	66	

Notes:

****, **, * indicates significance at 0.01, 0.05 and 0.10 levels*

T-statistics based on White heteroscedasticity-consistent standard errors.

www.manaraa.com

The third section of Table 4 shows that the result of R^2 (62%) from the finance industry in Abu Dhabi Securities Market which is less than compare with full sample. A comparison of coefficients with full sample indicates EPS with 20 has a higher explanatory power than the other variables as well and all coefficients are significant. As can be seen from the Table, value relevance of the accounting number for finance industries in the period after reform ($R^2 = 61\%$) is less than the period before reform ($R^2 = 86\%$). It means reform in accounting standards did not improve relevancy of accounting numbers in finance companies.

The fourth section of Table 4 demonstrates that explanatory power (R^2) of the model for non finance companies is 65.7% for the total sample and just coefficient of EPS variable is not statistically significant. Further analysis reveals value relevance of accounting information in non finance companies ($R^2 = 65.7\%$) is a little less than the full sample ($R^2 = 66.6\%$). A comparison of the two results for before and after reform in non finance companies demonstrate explanatory power (R^2) of the accounting information decrease from $R^2 = 53\%$ before reform to $R^2 = 39.7\%$ after reform. Accordingly, the result indicates first, value relevance of accounting numbers in finance industry and non finance companies is less than the full sample Secondly, Reform in accounting standards did not improve relevancy of accounting numbers in non finance and finance companies. Thirdly, there is a difference in value relevance of accounting information between unlike industries in Abu Dhabi Securities Market (ADSM).

4. Summary and Discussions

This paper has examined the impact of regulatory reforms in UAE on the value-relevance of accounting information. The value-relevance of accounting information is clearly supported by the current findings from the price model (with two independent variables) in the Abu Dhabi Securities Market (ADSM). A comparison based on price model of periods before and after reform, showed that the explanatory power (R^2) for the period before reform is higher than for the period after reform, which implies that the value-relevance of accounting numbers decreased in the period after reform. This finding may mean that reforms in accounting standards did not improve the relevance of accounting numbers in the Abu Dhabi Securities Market (ADSM). To provide more convincing evidence of the value-relevance of accounting earnings, this study also used the returns model. The return model indicated that EPS level and changes of EPS information were value-relevant. Results for the return model also documented a decline in the value-relevance of accounting earnings for the period after reform.

Findings of both methods based on the portfolio returns approach showed that selected accounting numbers are value relevant for Abu Dhabi Securities Market investors. A comparison of the results of the two methods periods before and after reform showed value relevancy of ΔEARN and ΔROE decreased during the period after reform. The results also indicated that value relevancy of ΔCASH increased in the period after reform based on both portfolio methods. A comparison of the results of ΔEARN and ΔROE with ΔCASH show that in the period before reform investors relied on ΔEARN and ΔROE while in the period after reform they noticed ΔCASH. However, the results showed that accounting reform had effect on value relevancy of accounting numbers although the effect for all selected numbers was not the same. Therefore, findings of two approaches (regression and portfolio approach) supported claims that accounting information is value relevant in Abu Dhabi Securities Market. Moreover, the findings also showed the following: 1) value relevance of accounting information is not the same between small and large companies. 2) Value relevancy of accounting information in small companies is more than large companies in Abu Dhabi Securities Market. In Abu Dhabi Securities Market small companies are more likely to include start-up companies and investors may focus more on accounting numbers of these companies than large companies.

As mentioned, value relevance of accounting information in UAE decreased after reform in accounting standards. Cho (2005)asserted the absolute magnitude of price change associated with accountings information was one main possible reasons for changes in the R2, in the case of UAE, referencing to (Barzegari, 2010) market index, price and return In Abu Dhabi Securities Market for years after reform was more than the absolute magnitude of accounting information. Also, this may be due to the availability of only one year of data for return model and two years of data for price model in the period before reform. This is may be because of economic conditions in country and world crisis.

www.manaraa.com

Findings from this study are relevant to standard setters and regulators for future directions in developing accounting standards. The results may be helpful to investors for understanding capital markets such as these countries, and may also provide insights for accounting standard setters and regulators.

The result of the study revealed accrual based information were more value relevant than cash based information. And also the coefficient of EPS was more than BVP. Therefore, another avenue for future research is to explore the reasons for accrual based information' superiority over cash based information and earnings' superiority over book value.

Investors tend to be more tolerant towards overvaluation when the economy and financial markets are doing well and less lenient during market bears and economic slowdowns (Al-Hogail, 2004). Future research might consider the relationship between this measure and other Macroeconomic measures, such as overall growth in economy or total market performance, which might influence investor behavior.

References

Alford, A., Jones, J., Leftwich, R., & Zmijewski., M. (1993). The relative informativeness of accounting disclosures in different countries. *Journal of Accounting Research, 31*, 183-223.

Ali, & Zarowin, P. (1992). The role of earnings levels in annual earnings-returns studies. *Journal of Accounting Research, 30*(286–296).

Aljifri, K. (2008). Annual report disclosure in a developing country: the case of the UAE. *Advances in International Accounting, 21*.

Aljifri, K., & Hussainey, K. (2007). The determinants of forward-looking information in annual reports of UAE companies. *Managerial Auditing Journal, 22*(9), 881-894.

Aljifri, K., & Khasharmeh, H. (2006). An investigation into the suitability of the international accounting standards to the United Arab Emirates environment. *International Business Review, 15*, 505–526.

Amir, E., Harris, T. S., & Venuti, E. K. (1993). A comparison of the value-relevance of US versus non-U.S. GAAP accounting measures using Form 20-F reconciliations. *Journal of Accounting Research, 31*, 230–264.

Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*(6), 159-178.

Barth, Beaver, W. H., & Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: another view. *Journal of Accounting and Economics, 31*(1-3), 77-104.

Barth, M. E. (1994). Fair value accounting: Evidence from investment securities and the market valuation of banks. *Accounting Review, 69*, 1–25.

Barzegari, K. J. (2010). *value relevance of accounting information in selected middle east countries.* University Putra Malaysia, Selangor,Malaysia.

Beaver. (2002). Perspectives on Recent Capital Market Research. *Accounting Review*(77), 453-474.

Beaver, W. H. (1968). The information content of eamings. *Journal of Accounting Research*(6 (Supplement):).

Beuselinck, C. (2005). *Essays on Financial Reporting Quality, Earning Management, and Corporate Disclosure.* University of Ghent, Ghent, Belgium.

Biddle, G., Seow, G., & Siegel, A. (1995). Relative versus incremental information content. *Contemporary Accounting Research, 12*(1), 1-23.

Burgstahler , & Dichev. (1997). Earnings, adaptation and equity value. *The Accounting Review 72*, 187-215.

Chan, K. C., & Seow, G. S. (1996). The association between stock returns and foreign GAAP earnings versus earnings adjusted to U.S. GAAP. *Journal of Accounting and Economics, 21*(139–158).

Chang, J. (1998). The Decline in Value Relevance of Earnings and Book Values: Wharton School University of Pennsylvania.

Chen.C. J, Chen. S, & Su. X. (2001). Is Accounting Information Value-Relevant in the Emerging Chinese Stock Market. *Journal of International Accounting Auditing and Taxation, 10*, 1-22.

Cho.M. (2005). *The Usefulness of Earnings, the Magnitude of Price Change, And the Return-Earnings Covariance: Beyond the ERC and R².* University of Maryland, College Park, Maryland.

www.manaraa.com

Core, J., Guay, W., & Van Buskirk, A. (2003). Market valuations in the new economy: An investigation of what has changed. *Journal of Accounting and Economics, 34*, 43–67.

Deloitte. (2007). IAS Plus, 31 December 2007: New page for United Arab Emirates from http://www.iasplus.com/country/uae.htm

Dung, N. V. (2010). *Value-Relevance of Financial Statement Information: A Flexible Application of Modern Theories to the Vietnamese Stock Market.* Paper presented at the Development and Policies Research Center, Vietnam.

Easton, P. D., & Harris, T. S. (1991). Earnings as an Explanatory Variable for Returns. *Journal of Accounting Research, 29*(1).

Ely, K., & Waymire, G. (1999). Accounting standard-setting organizations and earnings-relevance: Longitudinal evidence from NYSE common stocks, 1927–1993. *Journal of Accounting Research, 37*, 293–317.

Filip, A. (2010). IFRS and the value relevance of earnings: evidence from the emerging market of Romania. *International Journal of Accounting, Auditing and Performance Evaluation, 6*(6), 191-223.

Filip, A., & Raffournier, B. (2010). The value relevance of earnings in a transition economy: The case of Romania. *The International Journal of Accounting 45*, 77-103.

Francis, J., & Schipper, K. (1999). Have Financial Statements Lost Their Relevance? *Journal of Accounting Research Supplement, 37*, 319-352.

Graham, R. C., & King, R. D. (2000). Accounting practices and the market valuation of accounting numbers: Evidence from Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. *International Journal of Accounting, 35*(4), 445-470.

Hansen, F. (2003). International standards will smooth credit management. *Business Credit 1*.

Harris, M., & Muller, K. (1999). The market valuation of IAS versus US-GAAP accounting measures using Form 20-F reconciliations. *Journal of Accozlnting and Economics*(26), 285-312.

Harris, T. S., Lang, M., & Peter, H. (1994). The Value Relevance of German Accounting Measures: An Empirical Analysis. *Journal of Accounting Research, 32*(2), 187-209.

Haw, I. M., & Qi, D. (1999). Value relevance of earnings in an emerging capital market: The case of a-shares in China. *Pacific Economic Review, 4*(3), 337-347.

Ho, L.-C., C-S Liu, & Sohn., P. (2001). The value relevance of accounting information around the 1997 Asian financial crisis - The case of South Korea. *Working paper, University of Texas at Arlington*.

Holthausen, R. W., & Watts, R. L. (2001). The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics, 31*(1-3), 3-75.

Hung, M. (2001). Accounting standards and value relevance of financial statements: An international analysis. *Journal of Accounting and Economics, 30*, 401-420.

Irvine, H., & Lucas, N. (2006). *Globalized accounting standards: the case of the United Arab Emirates*. Paper presented at the the 3rd International Conference on Contemporary Business, Leura, New South Wales.

Jacob, R. A., & Madu, C. N. (2004). Are we approaching a universal accounting language in five years? *Foresight, 6*(4), 356 – 363.

Jun Lin, Z., & Chen, F. (2005). Value relevance of international accounting standards harmonization: Evidence from A- and B-share markets in China. *Journal of International Accounting, Auditing and Taxation, 14*(2), 79-103.

Kothari, S. P. (2000). *The role of financial reporting in reducing financial risks in the market*. Paper presented at the Federal Reserve Bank of Boston in its journal Conference Series.

Landsman, W. (1986). An empirical investigation of pension fund property rights. *The Accounting Review, October*, 662–691.

Lev, B., & Zarowin, P. (1999). The Boundaries of Financial Reporting and How to Extend Them. *Journal of Accounting Research Supplement, 37*, 353-385.

Marquardt, & Wiedman. (2004). The effect of earnings management on the value relevance of accounting information. *Journal of Business Finance and Accounting, 31*(3&4), 297–332.

Miller, M. H., & Modigliani, E. (1966). Some estimates of the cost of capital to the electric utility industry, 1954-57. *The American Economic Review*(56 (June)), 333-391.

www.manaraa.com

Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research;, 11*(2), 661.

Qystein, G., Kjell, K., & Frode Sættem. (2007). The Value-Relevance of Financial Reporting in Norway 1965-2004. Norwegian School of Economics and Business Administration , Norway.

Riahi Belkaoui, A. (2000). *Accounting theory* (4th ed.). London: Thomson Learning.

Scott, W. R. (2000). *Financial accounting theory* (2nd ed.). Ontario: Prentice-Hall Canada Inc.

Thinggaarda, F., & Damkierb, J. (2008). Has financial statement information become less relevant? Longitudinal evidence from Denmark. *Scandinavian Journal of Management, in press*.

Wagdy, M., Abdallah. (2001). *Managing multinationals in the Middle East : accounting and tax issues*: Quontm Books, 88 Post Road West, Westport, An imprint of Greenwood hblishing Group, Inc.Printed in the United States of America.

Zaleha, A.-S., Muhd-Kamil, I., Jagjit, K., & Hamezah, M.-N. (2008). The Value Relevance of Intangibles Non-Current Assets in Different Economic Conditions. *International Review of Business Research Papers, 4* (2), 316-337.

www.manaraa.com