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Full Length Research Paper

The impact of reforms on the value relevance of accounting information: Evidence from Iran

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This paper examines the value relevance of accounting information in Iran for the period 1996 - 2008, before and after the codification of national accounting standard in 2001, which could describe the effect of codification of the first national accounting standards by The Iranian Association of Certified Public Accountants. The results obtained from a combination of regression and portfolio approaches, show accounting information in Iran is value relevant and value relevance of Earnings Per Share (EPS) is higher than book value of equity per share (BVP). Moreover, a comparison of the results for the periods before and after reform, 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 codification of the first national accounting standards did not improve relevancy of accounting numbers in the Tehran stock exchange.

Key words: Value relevance, accounting standards, Tehran stock exchange, Iran, portfolio approach.

INTRODUCTION

Accounting standards are important regulatory devices of accounting. They serve as a contract template among parties who participate in a firm, such as management, creditors and investors (Sunder, 2002). Accounting standards furnish counseling on how accounting information should be recorded, reported and interpreted. Differences in quality of accounting standards, specifically, play a role in differences in value relevancy of accounting numbers (Babalyan University of Friboug, Switzerland, 2001; Bartov et al., 2005; Graham and King, 2000; Rahman and Wulandari, 2004). The essential idea is that value relevance is a measure of investor perception of the reli-ability of corporate financial disclosure. Loss of investor confidence in corporate financial disclosures can be detected by a drop in value relevance, while an increase in investor confidence will be similarly detectable by an increase in value relevance. Therefore, value relevance approach is an instrument to estimate quality of accounting information which is a prime importance to the information, which is a prime importance to the well-functioning of the economy (Beuselinck, 2005).

In recent years, privatization of economic entities in Iran has enhanced the need for publicly available financial information. If firms are looking for capital from the public they need to provide adequate levels of disclosure in their financial reports to inspire investor confidence. Although much has been written about the development of financial markets, accounting and eco-nomic 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 Iran. Consequently, this study aims to investigate the level of the value relevance of accounting information in Iran. In particular, it measures whether the quality of accounting information in the country has improved or whether it has not yet become relevant despite reforms and codification of Iran's own national accounting standards.

The reminder of this paper is organized as follows. Continuance of this section contains background and literature review and followed by a review on development of

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accounting in Iran. 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.

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) pointed 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 (that is, 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 market place value. Ball and Brown (1968); 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 found that the value relevance of accounting information has declined in recent years (Lev and Zarowin, 1999; Francis and Schipper, 1999; Ely and Waymire, 1999; Graham et al., 2000; Ho et al., 2001; Core et al., 2003; Marquardt and Wiedman., 2004; Thinggaarda and Damkierb., 2008). On the other hand, a number of 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.

Pourheydari et al. (2008) compared the value relevance of book value and dividends versus book value and reported earnings in the Tehran Stock Exchange (TSE) from 1996 to the end of 2004.The results of their research indicated that: there was a positive relationship between dividends, book value and earning, with stock market value in the Tehran Stock Exchange (TSE). Safajou et al. (2005) examined the empirical relationship between earning per share and book value with stock market value for the 8-year period from 1997 to 2002. They used the Ohlson model (1995). They found that there was a significant relationship between EPS, BV and price.

In all the research studies that have been carried out there are no mentions of the codification of the first accounting standards in Iran. To the best of our knowledge, there is no empirical research that uses regression-variations and the portfolio-returns approaches to test of value relevance in Iran. 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.

Development of accounting in Iran

Accounting in the world has a history of 6000 years, with the discovery of the first records dating from 3600 years before the birth of Christ. Records of ancient Iran show that in 500 BC (in the Achaemenid era), all public revenues and expenses were maintained in an organized manner (Mashayekhi and Mashayekh, 2008). The history of modern accounting dates from 1921, and before long every major pioneer international accounting firm (e.g. KPMG, Winney Merry, Arthur Andersen, Arthur Young and Deloitte) had operations in Iran. The year 1997 was

Table 1. Chronology of events in the history of the Iranian accounting profession.

Year	Event
1932	Appointment of Inspector to check the accounts and documents of companies
1947	Application of public accountants' services in matters of tax documentation was countenanced.
1949-1956	Acceptance of the results of the examination by "accountants under oath"' concerning the accounts or balance sheets of businessmen and companies for the purpose of tax assessment
1961	Approval of operating regulation for the use "Accountant Under Oath"
1962	Formation of the first association of "Accountants Under Oath"
1964	Foundation of the Iranian Accounting Association
1968	Requirement of the use of public accountant's report
1971	Foundation of the Audit Firm, Inc.
1972	Use of public accountant's report is made a requirement of the Articles of Association of the Center of Public Accountants
1983	Enactment of the law decreeing the Establishment of the Iranian Audit organization
1987	Approval of the Articles of Association of the Audit Organization
1993	Enactment of the law decreeing the Establishment of the Iranian Audit Organization
1995	Approval of the regulations governing the determination of the public accountant's qualifications
1999	Formulation of the Iranian Association of Certified Public Accountants Articles of Association
2000	Formulation of the regulations governing the use of the public accountant's services and reports
2001	Announcement of the first group of public accountants and the convening of the first general meeting of the Iranian Association of Certified Public Accountants.

*Source: (Davani, 2009).

another reference point for the Iranian accounting environment. The Audit Organization formulated accounting standards based on International Accounting Standards (IASs). By 1997, the Audit Organization had codified and published National Standards on Auditing (NSAs) based on the IASs. The Iranian Association of Certified Public Accountants (IACPA) was established in 2001 as an independent professional body. IACPA codified the first national accounting standards based on the IASs on March 20, 2001. These standards are mandatory for all companies in Iran. Table 1 describes the chronology of events in the history of the Iranian accounting profession.

METHODOLOGY

In this study, the regression-variations and the portfolio-returns approaches were used to investigate and to operationalize the value relevance of accounting information. It was because they provided 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.

Regression-variations approach

A regression-variation 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).

Earning return model

A large volume of literature has examined the usefulness of earnings information by employing a market return model (Chen et al., 2001; Harris et al., 1994). In particular, the return model developed by Easton and Harris (1991) has been immensely popular amongst value-relevance researchers (Ali and Zarowin, 1992; Amir et al., 1993; Chan and Seow, 1996; Chen et al., 2001; Harris and Muller, 1999; Harris et al., 1994; Haw and 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(Harris and Muller, 1999; Jun and Chen, 2005; Kothari, 2000).

$$R_{jt} = \beta_0 + \beta_1 EPS_{jt} / P_{jt-1} + \beta_2 (EPS_{jt} - EPS_{jt-1}) / P_{jt-1} + e_{jt}$$

R_{jt}: annual return (including cash dividends) of firm j shares for period t, P_{jt-1}: stock price at date of accounting announcement for firm j during period t, EPS_{jt}: annual earnings per share for firm j during period t, $EPS_{jt} - EPS_{jt-1}$: change annual earnings per share for firm j from period t-1 to t , e_{jt}: error term.

Price model

Following numerous prior value-relevance studies (Amir et al., 1993; Barth, 1994; Burgstahler and Dichev, 1997; Filip and Raffournier, 2010; Harris and Muller, 1999; Landsman, 1986), a price model is 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 only earnings but also book value of equity on stock performance. Traditionally, earnings and book values are considered to contribute to value relevance (Burgstahler and Dichev, 1997; Ohlson, 1995). Currently, 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:

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

P_{jt}: the market price per share of firm j at time t, $BVPS_{jt}$: book value of firm j at time t, EPS_{jt}: earnings of firm j for period ending at time t, $CFPS_{jt}$: Cash flow of firm j for period ending at time t, e_{jt}: error term.

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 et al., 1993; Chang (Wharton School University of Pennsylvania), 1998; Francis and 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).

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

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 $EARN_{jt}$ portfolio, we take long positions in the stocks with the highest 40% of $EARN_{j,t}$ and short positions in the stocks with the lowest 40% of $EARN_{j,t}$, 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.

Data and sample

Iran qualifies from many respects to be a good location for investment and doing business. In recent years the country has initiated reforms, especially in financial sectors, accounting and particularly in capital markets. Therefore, the study selected Iran because market participants in Iran capital market need to know whether the value relevance of current accounting numbers is increased or not. The data for this study were obtained from the Tadbir Pardaz database and the Tehran Stock Exchange (TSE) website for 1996 through 2008. The study was limited to this period because the Iranian Association of Certified Public Accountants codified the first national accounting standards in March, 2001. These standards are mandatory for all companies in Iran. Therefore, to investigate the effects of the implementation of these

standards it was necessary to have at least 5 years before this date for each company. Another reason for limiting the period under study to the years 1996 to 2008 was the availability of data. 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 Iran the fiscal year ends of March 21. 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 March 21 were excluded from the sample. Pursuant to the application of these selection criteria, the final sample consisted of 1209 firm-year observations for the price model (93 companies for 13 years) and 1116 firm-year observations for the return model and also for the portfolio approach (93 companies for 13 years).

RESEARCH FINDINGS

Descriptive statistics

Table 2 provides descriptive statistics for all the variables used in the regression analyses of Iranian data. The average per share market value of equity is 2402 Rls during this thirteen-year period with an annual mean standard deviation of 2784 Rls. This shows that investors obtained an average annual 0.49 market return during this twelve-year period with an annual mean standard deviation of 1.8. These two descriptions indicate that the Iranian market was quite an unsettled market. The sample shows the high standard deviation in the dataset, which confirms the variability of firm's size and industry classification traded in the Tehran stock market. Panels B and C show this situation was worse in pre-reform periods based on just per share market value of equity. For the earning per share (EPS) and book value of per share (BVP) amounts, there are standard deviations more than the mean. Amounts of these variables achieve a mean higher than the pre-reform period.

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.

Regression-variation approach

Table 3 contains results of the regression-variations approach. The first panel states the results of the price model, including models with two and three variables. Panel B shows the results of the return model. The table shows regression coefficients, as well as the total and incremental explanatory power from price and return regressions. In the first step, focus is on the analysis of the explanatory power of regressions and in second step the focus is on the coefficients of variables. However, Table 3 also displays figures for thirteen-year pooled regressions (1996 - 2008) and two pooled regression for two sub-samples periods (that is, 1996 - 2000, and 2001 - 2008).

Panel A includes a price model divided into two sub-variation models. Result of coefficient test (redundant variables test and omitted variable test) suggest price model with two variables (Table 3). The redundant variable test suggests the dropping of the CFP variable from the model with three variables (0.337 > 0.05). The result of the omitted variable test does not indicate that the CFP variable should be added to the price model with two variables (0.70 > 0.05). The first panel of the Table 3, model with two variables shows that the R^2 for the price model specification is 65.5% for the total sample and that all coefficients are statistically significant. A comparison of coefficients indicates that the EPS of 1.75 has a higher explanatory power than any other variable. Therefore, according to the price model accounting information in Iran is value relevant and EPS is more relevant than BVP. A comparison of the two results for before the reform (1996 - 2000) and after the reform (2001 - 2008) (that is, the second and third lines of panel A) demonstrates that the explanatory power (R^2) of accounting information decreased from 89.5 to 78% in the period after reform. Further analysis reveals that both sub-samples have high R^2, (89.5 and 78%) and also a high incremental value relevance of EPS. Consequently, the results indicate that reform in accounting standards did not improve relevancy of accounting numbers in the Tehran stock exchange.

Panel B of Table 3 provides the results of the return model. Explanatory power (R^2) for the return model specification is 34% for the total sample and all coefficients are statistically significant. A comparison of coefficients indicates that the EPS level of 2.7 has higher explanatory power than any other variable. Therefore, according to these results it can be concluded that accounting infor-mation (EPS level and EPS changes) in Iran is relevant for investors in their decision making. The second and third lines of panel B of Table 3 show that the explanatory power (R^2) of accounting numbers in the return model decreased from 76% in the period before reform (1997 - 2000), to 34% in the period after reform (2001 - 2008). According to both sub-samples all coefficients are statistically significant and the EPS levels have higher explanatory power coefficients than any other variable in two periods. Therefore, the result of the return model indicates that reform in accounting standards did not

Table 2. Descriptive statistics.

Name of variables	N	Mean	Std. Dev.	Median
Panel A: Full sample (1996-2008)				
P4 (Market price per share of firm)	1209	2402	2784	1490
EPS (Earning per share)	1209	419	629	268
BVP (Book value of equity-per share)	1209	1060	1226	736
CFP (cash flow per share)	1209	175	302	82
R (annual return)	1116	0.49	1.8	0.14
EPS/P (Earning per share / price)	1116	0.23	0.27	0.19
EPS(change annual earnings per share)	1116	0.035	0.24	0.02
Panel B: Before reform				
P4 (Market price per share of firm)	465	1372	2414	832
EPS (Earning per share)	465	253	359	161
BVP (Book value of equity-per share)	465	101	220	48
CFP (cash flow per share)	465	457	511	332
R (annual return)	372	0.59	1.11	0.30
EPS/P (Earning per share / price)	372	0.26	0.20	0.24
EPS(change annual earnings per share)	372	0.04	0.16	0.03
Panel C: After reform				
P4 (Market price per share of firm)	744	3048	2810	2010
EPS (Earning per share)	744	515	695	368
BVP (Book value of equity-per share)	744	1435	1375	1117
CFP (cash flow per share)	744	222	336	120
R (annual return)	744	0.43	1.98	0.09
EPS/P (Earning per share / price)	744	0.21	0.30	0.17
EPS(change annual earnings per share)	744	0.03	0.27	0.02

*All data are based on Iran's riyal (Rls).

improve the relevancy of accounting numbers (EPS level and EPS changes) in the Tehran stock exchange.

Portfolio-returns approach

Panel A of Table 4 presents results for net income (EARN), return on equities (ROE) and cash flow (CFP) changes based on the sign and also based on sign and magnitude for each sample year. Panel B of Table 4 shows results for the full sample and compares results for the two periods (before and after reform) for each of the accounting numbers. Panel A (first column) of Table 4 shows for each year in the investigated period, the results for the mean market-adjusted return on each accounting hedge portfolio (%). The value 132.8 in below SIGN_ EARN for year 2008 means person could earn 132.8% net market-adjusted return (long position minus short position) in year 2008 if SIGN_ EARN was used to construct a portfolio. Since this is more than zero it can be concluded that earning information is relevant for investors on the Tehran stock exchange market in year 2008. A comparison of these numbers; SIGN_ EARN (132.8%), SIGN_ ROE (200.3%) and SIGN_ CFP (58%) in the last line of panel A for year 2008 shows that SIGN_ ROE (200.3%) are more relevant than other accounting numbers for investors. This also indicates that present earnings and ROE with 132.8 and 200.3% respectively, are more relevant than cash flow (with 58%).

The value 38.4 under SIGN_ EARN for year 2008 as %mkt ratio indicates that about 38.4% of the total perfect foresight returns are available to investors with advance knowledge of the sign of the earnings change. These percentages for SIGN_ ROE and SIGN_ CFP are 57.9 and 16.8% meaning that changes of cash flow for year 2008 had minimum relevancy while SIGN_ ROE had maximum relevancy for investors. A comparison between these numbers demonstrates that value relevancy of earnings and ROE changes are more significant than cash flow for investors. Further analysis of panel A of Table 4 shows that in the period of investigation, the highest relevancy of accounting numbers belonged to SIGN_ ROE (271.27%) in 2006 and SIGN_ CFP (299.33%) in 2007 based on hedge portfolio return(%). According to the %mkt ratio the highest relevancy of

Table 3. Result of regression-variations approach.

Panel A: Price model

Years	$pit=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$					$pit=ß_0+ß_1bvp_{it}+ß_2eps_{it}+ ß_3cfp_{it}+e_{it}$				
	$ß_0$	$ß_1$	$ß_2$	R^2	N	$ß_0$	$ß_1$	$ß_2$	$ß_3$	R^2
1996 - 2008	1469	0.19	1.75	0.655	1209	1462	.18	1.7	0.17	.65
t-st.	10***	3***	8.5***			9.9***	2.7***	8.7***	1.1	
1996 - 2000	23.6	1.8	2.1	0.895	465	30	1.8	2.5	-1.43	.90
t-st.	0.15	9.2***	6.4***			0.21	8.9***	6.2***	-3.4***	
2001 - 2008	2586	-0.09	1.16	0.78	744	2582	-0.1	1.15	0.05	0.78
t-st.	23***	-3.9***	6.9***			23***	-3.7***	7***	0.43	

Panel B: Return model

$R_{it}= ß_0+ß_1eps_{it}/p_{it-1}+ß_2(eps_{it}- eps_{it-1})/p_{it-1} +e_{it}$

	$ß_0$	$ß_1$	$ß_2$	R^2	N		
1997- 08	-0.11	2.7	-0.42	0.34	1116		
t-st.	-2.2**	7.3***	-2.1**				
						Coefficient tests of CFP	**Prob. f test**
1997- 00	-0.47	4.3	-1	0.76	372	Redundant variables	0.7004
t-st	-14***	24***	-8.5***			Omitted variables	0.3370
2001-08	-0.14	2.8	-0.57	0.34	744		
t-st	-2.6***	6.2***	-2.8***				

***, **, * indicates significance at 0.01, 0.05 and 0.10 levels. T-statistics based on White heteroscedasticity-consistent standard errors. *For full sample and two sub-samples of return model is used GLS (Cross Section Weight). *For full sample of both sub-samples price model is used GLS (Cross Section Weight).

accounting number belonged to SIGN_ ROE (57.9%) in 2008. Lower relevancy (lack) is attributed to SIGN_ CFP (-103.7%) in 2003, based on hedge portfolio return (%). According to the %mkt ratio lower relevancy (lack) of the accounting number is attributed to SIGN_ ROE -35.5% in 2004.

Panel B of Table 4 shows 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 perfect foreknowledge of accounting information (%mkt) for the investigated period. The results 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 earnings (SIGN_ EARN) would earn an average market-adjusted return throughout the sample period of about 52.47%, compared to 72.18% based on the sign ROE and 39.72% based on the sign

CASH. What is interesting in this comparison is that the SIGN_ ROE portfolio has higher relevancy. So, these results also mean that all of the selected accounting numbers are value-relevant to investors. Investments based on accrual-based information are expected to be more profitable. The accrual-based information is more value-relevant than cash based information.

The results in the second and third column reveal that accounting information is value relevant in the both period before (1997 - 2000) and the period after reform (2001 - 2008) in Iran. In the first period, SIGN_ EARN information is more relevant than other information, while in the second period (after reform) SIGN_ ROE information is more relevant than others. A comparison of results of accounting numbers for the two periods shows that the value relevance of SIGN_ EARN decreases in the period after reform. Meanwhile, the results based on SIGN-CASH and SIGN_ ROE show an increase in value relevance for the period after reform. The results obtained from the preliminary analysis of the value relevance of accounting information based on the sign and magnitude are presented in panel A (second column) of Table 4. The value 47.6 under EARN column for year 1998 means a person could earn 47.6% net market-adjusted (long position minus short position) based on sign and magnitude of earning changes. Since this is more than zero, it can be concluded that earning changes are relevant for investors to make well-informed decisions. A comparison of the numbers for EARN (47.6%), ROE (47.4%) and CFP (-12.5%) for year 1998 shows that cash flow information is not relevant for

Table 4. 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)1997-2008.

Year	Based on sign						Based on sign and magnitude					
	EARN		ROE		CFP		EARN		ROE		CFP	
	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt
1997	22	9.3	2.4	1	2.7	1.1	14.4	7.9	38.5	21.3	9.8	5.4
1998	47.9	16.5	23.7	8.2	-16.6	-5.8	47.6	19.8	47.4	19.7	-12.5	-5.2
1999	84.6	29	65.8	22.6	26	8.9	127.2	45.3	73.5	26.2	22.1	7.9
2000	116.6	36.6	115.5	36.3	-0.4	-0.1	130.1	46	161.4	57	2	0.7
2001	84.1	23.4	56.8	15.8	9.8	2.7	41.9	14.7	34.6	12.1	-11.4	-4
2002	-6.7	-1.6	5.6	1.4	65.8	15.9	-18.6	-7.6	3	1.2	46.2	19
2003	-20	-4	6	1.2	-103.8	-20.9	-33.1	-15.6	16.8	7.9	-99.8	-46.9
2004	-76.1	-34	-79.4	-35.5	14.9	6.7	-92.2	-39.7	-38.7	-16.7	-14.3	-6.2
2005	9.3	4	29.8	12.8	-62.8	-27.1	-8	-2.9	43.5	15.6	-51.3	-18.3
2006	-51.6	-15	271.3	79	-31.6	-9.2	-59.2	-12.3	266.1	55.2	-148.3	-30.8
2007	132.4	21.2	89.1	14.3	299.3	48	135.2	19.7	56.8	8.3	272	39.6
2008	132.8	38.4	200.3	57.9	58	16.8	159	29.3	194.6	35.8	91.4	16.8

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).

Year	Based on sign						Based on sign and magnitude					
	EARN		ROE		CFP		EARN		ROE		CFP	
	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt	%	%mkt
1997-08	52.47	14.87	72.18	20.86	39.72	8.34	54.61	15.22	78.00	21.69	36.01	7.45
1997-00	67.77	22.86	51.84	17.00	7.17	2.51	79.81	29.75	80.17	31.04	8.46	3.50
2001-08	44.82	10.88	82.36	22.80	55.99	11.25	42.01	7.95	76.91	17.01	49.78	9.43

investors in making investment decisions, while earnings and ROE information are relevant for investors. They also show that the present earnings (47.6 %) are not more relevant than ROE (47.4%) for year 1998.

The value 19.8 under EARN for year 1998 as %mkt ratio indicates that about 19.8% of the total market adjusted returns are available to investors with advance knowledge of the sign and magnitude of the EARN portfolio. The ratios for ROE and CFP are 19.7 and -5.2%, respectively. The ratio of -5.2% for CFP means changes of cash flow for year 1998 are not relevant for investors. A comparison of these numbers shows that

ROE is more relevant than other variables for investors to make well-informed decisions. Panel A (second column) of Table 4 shows that in the period under investigation, the accounting number with the highest relevancy is CASH (272%) in year 2007, based on hedge portfolio return (%). According to the %mkt ratio, the accounting number with the greatest relevance is

ROE (57%) in year 2000. CASH (–148.3%) in year 2006 has least relevance, based on hedge portfolio return (%). According to the %mkt ratio, the accounting number of CFP (-46.9%) has lower relevance in year

2003.

Panel B of Table 4 reveals mean market-adjusted returns on accounting hedge portfolio (%) and a proportion of the total hedge portfolio market-adjusted returns can be earned by the perfect foreknowledge of the accounting information (%mkt) for the investigated period. The results in the column based on sign and magnitude clearly demonstrate that foreknowledge of information in the financial statements is highly relevant for investors. Investment strategies based on a preview of the sign and magnitude of the change in ROE would earn an average market-adjusted return throughout the sample period of about 78%, compared with 54.61% for the EARN portfolio and 36.01% for the CASH portfolio. Thus, the results show all of the accounting numbers are value relevant. Investments based on accrual-based information are more profitable. The accrual-based information is more value-relevant than cash based information. These results also show that perfect foreknowledge of the financial accounting information used in the study would allow an investor to earn a maximum of about 21.69% of all the returns available in a typical year (%mkt). The results in the second and third

Table 5. Result of control variables.

Years	Price model								
	$pit=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$			$pit=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$			$pit=ß_0+ß_1bvp_{it}+ß_2eps_{it}+e_{it}$		
	1996 - 2008			1996 - 2000			2001 - 2008		
	$ß_0$	$ß_1$	$ß_2$	$ß_0$	$ß_1$	$ß_2$	$ß_0$	$ß_1$	$ß_2$
Small com.	1151	0.44	1.2	445	1.07	1.3	1736	0.15	1.12
t.st.	10.6***	5***	6.1***	6.8***	7.4***	4.9***	12***	1.38	4.7***
R^2	0.68			0.66			0.90		
N	23	299		23	115		23	184	
Large com.	1649	-.35	3.4	-210	.77	6.4	3738	-.59	2.1
t.st.	6.7***	-2.3**	5.5***	-2.7***	2.9***	29***	7.6***	-3.3***	4.1***
R^2	0.615			0.97			0.73		
N	23	299		23	115		23	184	
Oil and Chem Co.	1273	.26	2.5	-268	1.55	3.45	1262	-0.18	3.8
t.st.	5.7***	2.7***	8.5***	-2.9***	23***	7.6***	9.8***	-1.9**	13.2***
R^2	0.77			0.97			.87		
N	22	286		22	110		22	176	
Cement and Ceramics Co.	1925	0.15	1.45	322	-0.6	3.88	4098	-.52	0.81
t.st.	5.9***	0.72	2.5**	43***	-2.4**	4.1***	20***	-3.4***	1.9*
R^2	0.36			0.76			0.60		
N	15	195		15	75		15	120	
Food co	1607	-0.15	3.8	161	2.5	1.9	2941	-0.88	4.1
t.st.	8.7***	-0.75	8.3***	0.35	6.1***	5.2***	8.3***	-6.4***	17*
R^2	0.71			0.87			0.75		
N	8	104		8	40		8	64	

Notes: ***, **, * indicates significance at 0.01, 0.05 and 0.10 levels. T-statistics based on White heteroscedasticity-consistent standard errors.

lines under sign and magnitude (panel B) indicate that accounting information is value-relevant in both the period before reform (1997 - 2000) and the period after reform (2001 - 2008) in Iran. A comparison of results of accounting numbers for two periods shows value relevance of ROE information is greater than other information, while the results based on EARN and

ROE support the conclusion that value relevance of accounting information decreased in the Tehran stock exchange after accounting reform in this market. This conclusion matches that of the regression approach for the Tehran stock exchange.

Control variables (size and industry effects)

The first and second parts of the Table 5 show the results of value relevance in small and large companies. The explanatory power of model for small companies' specification is 68% for the total sample and all coefficients are statistically significant. A comparison of coefficients indicates that the full model EPS with 1.2 has a higher explanatory power than BVP. Further analysis reveals value relevance of accounting information in small companies (R^2 = 68%) is greater than that of the full sample (R^2 = 65.5%). A comparison of the two results for before and after reform in small companies demonstrates that the explanatory power (R^2) of accounting information decreased from 85% before reform to 74% after reform. It can be seen from Table 5 that in the case of large companies, the value relevance of accounting information for these companies (R^2 = 61.5%) is less than for small companies (R^2 = 68%) and also less than that of the full sample (R^2 = 65.5%). Comparing the two results before and after reform, it can be seen that value relevance of accounting numbers for large companies decreased from R^2 = 97% before reform to R^2 = 76% after reform. Consequently, the results indicate that there is a difference in value relevance of accounting information between large companies and small companies in the Tehran stock exchange.

The third section of Table 5 shows that the result of R^2 (77%) from the oil and chemical industries in Iran is greater than the result for the full sample. A comparison

of coefficients with the full sample indicates that the EPS with 2.5 also has a higher explanatory power than the BVP. As can be seen from the table, value relevance of the accounting number for oil and chemical industries in the period after reform (R^2 = 87%) is less than that for the period before reform (R^2 = 97%). What is interesting in this data is that a coefficient of EPS is higher than BVP for both periods. Accordingly, the result indicate first, value relevance of accounting numbers in oil and chemical industries is greater than for the full sample. Secondly, reform in accounting standards did not improve the relevancy of accounting numbers in the oil and chemical industries in the Tehran stock exchange.

The fourth section of Table 5 demonstrates that explanatory power (R^2) of the model for cement and ceramic companies is 36% for the total sample and only the coefficient of the EPS variable is statistically significant. A comparison of coefficients indicates that the full sample model EPS with 1.45 has higher explanatory power. Further analysis reveals that value relevance of accountting information in cement and ceramic companies (R^2 = 36%) is less than that of the full sample (R^2 = 65.5%). A comparison of the results for before and after reform in cement and ceramic companies demonstrates that the explanatory power (R^2) of accounting information decreased from R^2 = 76% before reform to R^2 = 60% after reform. It can be seen from the data in Table 5 that a coefficient of EPS is higher than BVP for both periods. Therefore, the results indicate first, that value relevance of accounting numbers in cement and ceramic companies is less than that of the full sample. Secondly, reform in accounting standards did not improve relevancy of accounting numbers in cement and ceramic companies in the Tehran stock exchange.

The fifth section of Table 5 reveals that the result of R^2 (71%) for food companies in Iran is greater than the result for the full sample. A comparison of coefficients with the full sample indicates that the EPS with 3.8 has a higher explanatory power than the BVP. As can be seen from the Table, value relevance of the accounting number for food companies in the period after reform (R^2 = 75%) is less than that before reform (R^2 = 87%). However, the coefficient of EPS is less than BVP for the period before reform, while after reform it is greater than BVP. Therefore, the results indicate first, value relevance of the accounting numbers in food companies is greater than that of the full sample. Secondly, reform in accounting standards did not improve relevancy of accounting numbers in food companies in Tehran stock exchange and thirdly, there is a difference in the value relevance of accounting information among unlike industries in the Tehran stock exchange.

SUMMARY AND DISCUSSIONS

This paper has examined the impact of regulatory reforms in Iran 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 Tehran stock exchange. The results also show that all coefficients are statistically significant. Comparison of coefficients indicates that EPS has a higher explanatory power than BVP. The higher explanatory power of EPS for Iran means that EPS plays a significant role in explaining prices. Prior research also showed that value-relevance of BVP was lower than EPS in the Tehran stock market (Safajou et al., 2005; Pourheydari et al., 2008). 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 Tehran stock exchange. This supports the finding of Pourheydari et al. (2008) who showed that the trend of value relevancy of EPS and BVP decreased over the period 1997 to 2004 in the Tehran stock market. 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 Tehran stock exchange investors. A comparison of the results of the two methods for the periods before and after reform showed value relevancy of ΔEARN decreased during the period after reform. However, the value relevancy of ΔROE was different for each of the two methods. The portfolio results based on sign and magnitude showed a decrease in the value relevancy of ΔROE, while portfolio results based on sign method showed an increase in the value relevancy of ΔROE. The different results for ΔROE might be due to the lack of efficiency of the Iranian capital market. The results of two methods for the periods before and after reform showed that value relevancy of ΔCASH increased during the period after reform. Therefore, a comparison of the results of ΔEARN and ΔCASH shows that in the period before reform investors relied on ΔEARN, while in the period after reform they moved on to ΔCASH. However, the results showed that accounting reform has an effect on the value relevance of accounting numbers, although the effect for all selected numbers was not the same.

As mentioned, value relevance of accounting information in Iran decreased after reform in accounting standards. Cho (2005) asserted the absolute magnitude of price change associated with accounting information was one main possible reasons for changes in the R^2, in the case of Iran, referencing to (Barzegari, 2010) market index, price and return in Iran for years after 2004 till

2006 decreased while the amount of accounting number changes stayed almost fix or even increased. It also may be due to the Iran's political conditions, mentioned by Tsalavoutas et al. (2010) as one of the important effective factors on value relevance studies.

The results of the study revealed that accrual-based information was more value-relevant than cash-based information. Furthermore, the coefficient of EPS was greater than BVP. Therefore, an avenue for future research is to explore the reasons for the superiority of accrual-based information over cash-based information and the superiority of earnings over book value. 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 those of Iran and may also provide insights for accounting standard setters and regulators. Investors tend to be more tolerant of overvaluation when the economy and financial markets are doing well and less accepting during bear market and economic slowdown (Al-Hogail, 2004). Future research might consider the relationship between this measure and other macroeconomic measures, such as overall growth in the 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. J. Account Res., 31, 183-223.

Ali A, Zarowin P (1992). The role of earnings levels in annual earnings-returns studies. J. Account. Res., 30: 286–296.

Amir E, Harris TS, Venuti EK (1993). A comparison of the value-relevance of US versus non-U.S. GAAP accounting measures using Form 20-F reconciliations. J. Account. Res., 31: 230–264.

Ball R, Brown P (1968). An empirical evaluation of accounting income numbers. J. Account Res., 6: 159-178.

Barth ME (1994). Fair value accounting: Evidence from investment securities and the market valuation of banks. Account. Rev., 69:1–25.

Bartov E, Goldberg SR, Kim M (2005). Comparative Value Relevance Among German, U.S., and International Accounting Standards: A German Stock Market Perspective. J. Account. Audit Finance, 20(2): 95-119.

Barzegari KJ (2010). value relevance of accounting information in selected middle east countries. Doctoral dissertation, University Putra Malaysia, Selangor, Malaysia.

Beaver (2002). Perspectives on Recent Capital Market Research. Account Rev., (77): 453-474.

Beaver WH (1968). The information content of eamings. J. Account. Res., 6(2):139-153

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. Contemp Account Res., 12(1): 1-23.

Burgstahler DC, Dichev ID (1997). Earnings, adaptation and equity value. Account Rev., 72: 187-215.

Chan KC, Seow GS (1996). The association between stock returns and foreign GAAP earnings versus earnings adjusted to U.S. GAAP. J Account Econ., 21:139–158.

Chen CJ, Chen S, Su X (2001). Is Accounting Information Value-Relevant in the Emerging Chinese Stock Market. J. Int. Account Audit Taxat., 10: 1-22.

Cho M (2005). The Usefulness of Earnings, the Magnitude of Price Change, And the Return-Earnings Covariance: Beyond the ERC and R^2. University of Maryland, College Park, Maryland.

Core J, Guay W, Van Buskirk A (2003). Market valuations in the new economy: An investigation of what has changed. J. Account Econ., 34, 43–67.

Davani G (2009). Iran at a Glance. Paper presented at the Council Meeting November 17-18, 2009, Washington, D.C., USA

Dung NV (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 PD, Harris TS (1991). Earnings as an Explanatory Variable for Returns. J. Account Res., Spring, pp. 119-142.

Ely K, Waymire G (1999). Accounting standard-setting organizations and earnings-relevance: Longitudinal evidence from NYSE common stocks, 1927–1993. J Account Res., 37: 293–317.

Filip A (2010). IFRS and the value relevance of earnings: evidence from the emerging market of Romania. Int. J. Account Audit Perform Eval., 6(6): 191-223.

Filip A, Raffournier B (2010). The value relevance of earnings in a transition economy: The case of Romania. Int J Account, 45, 77-103.

Francis J, Schipper K (1999). Have Financial Statements Lost Their Relevance? J. Account Res., 37: 319-352.

Graham RC, King RD (2000). Accounting practices and the market valuation of accounting numbers: Evidence from Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. Int. J. Account., 35(4): 445-470.

Harris MS, Muller KA (1999). The market valuation of IAS versus US-GAAP accounting measures using Form 20-F reconciliations. J. Account Econ., 26: 285–312.

Harris TS, Lang M, Peter H (1994). The Value Relevance of German Accounting Measures: An Empirical Analysis. J. Account Res., 32(2): 187-209.

Haw IM, Qi D (1999). Value relevance of earnings in an emerging capital market: The case of a-shares in China. Pac Econ Rev., 4(3): 337-347.

Ho LC, Liu CS, 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 W, Watts L (2001). The relevance of the value-relevance literature for financial accounting standard setting. J. Account Econ., 31(1-3): 3-75.

Hung M (2001). Accounting standards and value relevance of financial statements: An international analysis. J Account Econ., 30: 401-420.

Jun Lin Z, Chen F (2005). Value relevance of international accounting standards harmonization: Evidence from A- and B-share markets in China. J. Int. Account Audit Taxat., 14(2): 79-103.

Kothari SP (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. Account Rev., 10: 662–691.

Lev B, Zarowin P (1999). The boundaries of financial reporting and how to extend them. J Account. Res, 37: 353–385.

Marquardt, Wiedman (2004). The effect of earnings management on the value relevance of accounting information, J. Bus. Finance Account., 31 (3and4): 297–332

Mashayekhi B, Mashayekh S (2008). Development of accounting in Iran. (Int J Account. 43: 66-86.

Miller MH, Modigliani E (1966). Some estimates of the cost of capital to the electric utility industry, 1954-57. Am. Econ. Rev. (56 (June)), 333-391.

Pourheydari O, Aflatooni A, Nikbakhat Z (2008). The Pricing of Dividends and Book Value in Equity Valuation: The Case of Iran. Int. J. Finance Econ.,(13): 1450-2887

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.

Rahman AR, Wulandari ER (2004). Accounting Institutional Environment And The Value Relevance Of Accounting Earnings. NTU.

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

Safahjo M, pourhyidari M, solaimani G (2005). Investigation of relationship between earning per share and book value with stock market value. Account. Audit. Rev., (42): 3-19 persian).

Scott WR (2000). Financial accounting theory (2nd ed.). Ontario: Prentice-Hall Canada Inc.

Sunder (2002). Regulatory competition among accounting standards within and across international boundaries. J. Account. Publ. Pol., (21): 219-234.

Tsalavoutas I, Andre P, Evans L (2010). Transition to IFRS and value relevance in a small but developed market: A look at Greek evidence. halshs-00460532, 1.

Tsalavoutas I, Andre P, Evans L (2010). Transition to IFRS and value relevance in a small but developed market: A look at Greek evidence. halshs-00460532, 1.

Thinggaarda F, Damkierb J (2008). Has financial statement information become less relevant? Longitudinal evidence from Denmark. Scand. J. Manage.., in press.

Zaleha A, Muhd-Kamil, Jagjit K, Hamezah MN (2008). The Value Relevance of Intangibles Non-Current Assets in Different Economic Conditions. Int. Rev. Bus. Res Pap., 4(2): 316-337.