İşletme Araştırmaları Dergisi
www.isarder.org

The Role of Accounting Information in the Stock Market: An Examination on ISE-Financial Sector

Koray KAYALIDERE
Celal Bayar University
Faculty of Economics and Administrative Sciences
45030, Manisa, Turkey
koray.kayalidere@cbu.edu.tr

Extended Summary

Introduction

Financial statements are defined by International Accounting Standards as the structured presentation of company's financial position and performance. Annual changes in financial position and performance are used as a parameter to forecast and predict the future of businesses.

An efficient market describes the market where all market participants simultaneously have information that could affect the market value of the company. It is a theoretical expectation that market values of companies at this market reflects the information presented in financial statements. There are empirical studies in the literature that reveal the relationship between accounting information and market value of the firm, hence supporting the theoretical expectation.

Present value of expected cash flows from a security in the future gives the theoretical market value of the firm for investor. This method used to find theoretical value is explained by valuation models. Basic inputs of valuation models are economic variables like assets, liabilities, and dividends. Among these inputs, dividends are income statement information and others are balance sheet information.

Effects of accounting information on stock market indicators have been related as value relevance in the literature. There are three different approaches in explaining value relevance of information produced by accounting information system. Approaches differ in terms of selecting dependent and independent variables placed in models. Dependent variable is market value of the firm while independent variables are assets and liabilities in the balance sheet approach. Response variable in income statement approach is stated in terms of returns. Explanatory variables are income and changes in income. Last approach is known as mixed model (Ohlson Model) and consists of the combination of first two approaches. Market value of the firm is dependent variable in

Ohlson Model and book value per share (BVPS) and earnings per share (EPS) are independent variables. Book value is balance sheet information while earnings are income statement information in the model. Value relevance of accounting information exists if coefficient estimates of explanatory variables in the model are positive and significant.

Method

The main purpose of the study is to explore the relationship level between accounting information and market value of the firm. Ohlson Model has been used in the study for 2005-2011 time period. Istanbul Stock Exchange (ISE)-Financial Sector firms' financial statements at the end of December have been used for explanatory variables while the price data at the end of April have been used as response variable. Analyses have been diversified on the basis of industry and year. To investigate potential multicollinearity problem, variance inflation factor has been calculated. Data set used in the study was based on annual cross-sectional observations. Heteroscedasticity problem has been commonly observed at this type of observations. For this reason, models have been estimated according to White's Heteroscedasticity-Consistent Variances and Standard Errors method. Additionally, influential observations not complying with general distribution have been left out of analysis and it has been tried to obtain more significant regression findings.

On the other hand, before experimenting Ohlson model, individual explanation levels of EPS and BVPS on the market price have been obtained by univariate models. Thus, the comparison of marginal explanation power (mep) and relative explanation power (rep) of balance sheet and income statement information on the stock price could be provided. The relationship between the change in mep and rep levels and economic crises has been tested.

Findings

In the first univariate (EPS) model, industrial analysis findings show that the highest return-price relationship has been observed at the banking and private financial institutions sector. EPS explains approximately 50% of market value per share in this sector. In annual analysis, parameter estimations are significant at 1% significance level for all models except the year 2009 when the real effects of crisis have been experienced. Coefficients of determination vary between 14% and 52%.

In other univariate (BVPS) model, industrial analysis findings indicate that the highest book value-market value relationship has again been observed in the same sector. BVPS explains approximately 55% of market value per share in this sector. Statistical significance has been obtained in all models while parameter estimations are consistent with theoretical expectations and positive in annual analysis. Coefficients of determination vary between 21% and 75%.

Obtained findings from Ohlson model with aggregated sample indicate the importance of accounting information. It appears that EPS and BVPS information have approximately 50% explanation power of market value per share. Parameter estimates of the model are significant at 1% significance level. Multicollinearity problem is not present among accounting information according to variance inflation factor.

The sector that accounting information explains market value the least is securities investment trusts sector and the most are banking and private financial institutions sector. Relationships among EPS and BVPS with market value per share have been found positive in annual analyses. Additionally, accounting information's explanation power of market value has been up until 75%.

Considering marginal and relative explanation power in annual basis, it can be said that EPS explains market value better in the period before crisis and BVPS explains market value better in the period after the crisis. This finding is consistent with the theoretical expectation that book value is a determining factor at explaining market value in crisis periods. It is also coherent with the findings of Collins, Pincus, and Xie (1999), Graham, King, and Bailes (2000), Friday and Gordon (2005) and Liu and Liu (2007).

In conclusion, it can be asserted that accounting information is a determining factor of shaping market value in the context of analysis period and observation sample. Study could be advanced by considering reported negative earnings in extreme periods like crises.