ECONOMIC AND ACCOUNTING INFORMATION AND STOCK MARKET EFFICIENCY

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Abstract

The purpose of this paper is to explore and to analyse the relations between financial accounting information and stock market efficiency. As we know, accounting contributes to the efficiency of the stock market by producing primordial information for the investors. On the other side, an efficient market facilitates the role of accounting by providing a reliable estimate of the value of many assets that needs to be evaluated. This article examines the importance of the financial accounting information for the efficiency of stock market, and also analyses whether and how the structure, the characteristics and publication of the information, impacts the prices and transactions volumes.

Keywords: *accounting information, economic information, stock market, information quality, market efficiency.*

1. Introduction

In many economic studies efficiency is the central motive of concerning. Gravelle and Rees said in 1992, in their paper called "Microeconomics", that the fundamental economic problem of society concerns the allocation of scarce resources among alternative uses. So, the society needs to find such a pattern of allocation that eliminate waste, namely to find efficient allocation.

Efficiency is a concept both major and highly controversial in Economics. After the appearance of stock markets, the theorists continued to prove that the stock prices follow a totally random pace. For their part, stakeholders argue that these markets are alternating phases of expansion and depression. After several attempts to explain the behaviour of prices, it was concluded that prices follow a stochastic process called "random walk".

The notion of efficiency of financial markets has its origins in the famous thesis of Bachelier from 1900 "Thèse de la speculation", where he has studied the link between changes in share price and the random walk. Bachelier was ahead of his time because other studies on the behaviour of stock prices do not appear until the early 60's with authors like Paul A. Samuelson and Eugene F. Fama. In a remarkable way, they both developed the same basic notion of market efficiency from two rather different research bases.

Samuelson says in his article called "Proof that Properly Anticipated Prices Fluctuate Randomly" that "In an informationally efficient market, price changes must be unforecastable if they are properly anticipated, that is, if they fully incorporate the information and expectations of all market participants".

Fama described in his article[1] the efficient market as a market in which prices fully reflect all the available information. He postulated that "a financial market is called efficient if

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[1] Eugene E. Fama, „*The Bevahior of Stock Market Prices*", Journal of Business, 38, Janvier.

only all available information on each financial asset traded on this market, is immediately incorporated in the price of the asset".[2]

Since the original definition of Eugene E. Fama, the definition of efficiency has evolved and today allows certain forms of predictability and it is less strict. According to M. Jensen (1978) "efficient markets are those markets where prices listed assets include information about them so that an investor may not, by buying or selling the asset, draw profit higher transaction costs generated by this action".[3]

Referring to the capital markets, efficiency is defined in terms of the amount of the information absorbed in share prices.[4]

C.M.C. Lee tries to highlight in his paper "Market efficiency and accounting research: a discussion of 'capital market research in accounting' by S.P. Kothari" published in Journal of Accounting and Economics 31 (2001) p: 233–253, the importance of investigating the various aspects of stock market efficiency and suggests that "Rather than assuming market efficiency, we should study how, when, and why price becomes efficient (and why at other times it fails to do so)." Since accounting information is one of the most important factors in price determining, I consider that it is a reliable candidate that needs to be analysed".

2. Content

According to economic theory, the value of an asset for its owner is the discounted value of all future cash flows which the owners expects to receive as a consequence of the possession and decisions regarding the assets use. The value of a company is assumed to ultimately depend on the monetary success of the business. In our days companies have many owners and their shares are traded on a stock exchange. The stock prices are determined by the interaction of many investors with different transaction motives, expectations of the future and analytical methods. The results of the aggregated actions of those investors generate market prices. Observed stock prices can be viewed as an aggregated measure of the market's valuation of the claim on the firm's future value creation.

Accounting can be viewed as a language through which an attempt is made to measure and describe the financial consequences of the actions that are taken within a financial entity.[5]

So, we can say that financial accounting and the stock markets are closely related, on the one hand, because accounting has become an essential source of information for investors, on the other hand, because the accounting is based more on market values to evaluate the assets from the balance sheet.[6] Accounting contributes to the efficiency of the markets by providing to the investors the information they need for taking the decisions.

Fama, said in his article called "The efficient capital markets: A review of theory and empirical work" that "the ideal is a market in which prices provide accurate signals for resource allocation: that is, a market in which firms can make production-investment decisions, and investors can choose among the securities that represent ownership of firms' activities under the assumption that security prices at any time "fully reflect" all available information". He defines efficient market as a market in which prices always "fully reflect" available information. That means that all the information must be instantly and completely integrated in the stock price.

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[2] Philippe Gillet, „*Efficience des marches financiers*", (Paris: Ed. Economica, 1999), p: 11.
[3] Philippe Gillet, „*Efficience des marches financiers*", (Paris: Ed. Economica, 1999), p: 11.
[4] Jiri Novak, „On the Importance of Accounting Information for Stock Market Efficiency", (PhD diss., Uppsala University, 2008).
[5] Mikael Runsten, " *The association between accounting information and stock prices*", (PhD diss., Stockholm School of Economics, 1998).
[6] Bernard Colasse, Encycolpédie de Comptabilité, Controle de Gestion et Audit (Paris: Ed. Economica, 2009), p: 1035.

One of the problems that accounting confronts with is the delayed production of the information. If the observers may anticipate the evolution of the enterprise and to environment, the accounting information will be incorporated to the securities price although they are not published yet. In this case its informative content can't influence the price quotations, regardless of the efficiency of the market. Therefore, if there is no significant reaction of the quotations when valid accounting data are published, the lack of response can mean either that the data does not provide any new information, either that the market is not efficient. So, to judge the efficiency of the financial market using accounting information, we must first ensure the reality of its informational content.[7]

C.M.C. Lee sustains that "If a particular piece of information is not incorporated in prices, there is a powerful economic incentive to uncover it, and to trade on it".[8]

In some studies, authors tried to explain the significance of the accounting information for the corporate value of firms, and to investigate the market value relevance of these dates. Francis and Schipper say that the market value relevance means that there "is a statistical association between financial information and prices or returns, and that the accounting based measures explain market prices in a good way, under the efficient market assumption that pricing reflects available information".[9] This definition of value relevance conforms to the statement of the importance of value relevance of accounting information in the Framework for the Preparation and Presentation of Financial Statement (IASC, 1989). Relevant information is such that "…influences the economic decisions of users by helping them evaluate past, present and future events".[10]

The use of the accounting information by the financial analysts demonstrates the utility of the information in matter of evaluating the enterprise. In the conditions of an efficient market, the publication of the accounting information must determine investors to change the structure of their asset portfolios and to revise their anticipations. Indirectly, the evolution of the market prices will suffer changes and the number of transactions with financial titles will grow up.

The studies of Ball and Brown (1968) and Beaver (1968) have revealed for the first time how important is the announcing of the annual results in the decision making of the investors. After them, several other studies have been conducted to identify the investor reaction to the disclosure of various accounting data. In these studies the researchers have tried to analyze the informational content of preliminary and final annual results, and of intermediate ones.

Pincus (1983), Bamber (1986) and Utama and Cready (1997) have concluded that when the annual profits are announced, the stock transactions volume has significant increases. If the accounting data can determine the investors to the change their position on the market, we can also expect to an increase of the volatility of rate of return on shares in publication moment. These results tend to confirm, on one side, the efficiency of financial markets, and, on the other side, the utility of the accounting data in matter of enterprise evaluation.

In the last period, it has been made more studies regarding the importance of the informational content of intermediate financial results for the investors. For appreciate the nature and the amplitude of the informational content of accounting data, the researchers analyzed the link between the unknown part of the announced profit and the market

[7] Bernard Colasse, Encycolpédie de Comptabilité, Controle de Gestion et Audit (Paris: Ed. Economica, 2009), p: 1036.

[8] C. M. C. Lee, „Market efficiency and accounting research: a discussion of 'capital market research in accounting' by S.P. Kothari", Journal of Accounting & Economics, Vol. 31, No. 1-3, p: 233-53.

[9] Francis, J. and K. Schipper "*Have Financial Statements Lost their Relevance?*" Journal of Accounting Research 37 (No 2 Autumn), 1999, p: 326.

[10] Babalola Yisau Abiodun, „*Significane of accounting information on corporate values of firms in Nigeria",* Research Journal in Organizational Psychology & Educational Studies, 2012, p: 105-113.

profitability of the enterprise. Others have pushed the analysis further by comparing the market reaction at the announcement of interim results with that associated with publication of annual results. Gajewski and Quéré have observed in their study published in 1991[11] that favorable annual publications are accompanied by an increase of the stock return greater than that associated with the semiannual publications, which suggests that the annual results have a higher informative content than the interim results. They have also studied the markets price evolution after the publication of financial statements by the enterprises in France. As a conclusion they affirmed that the value of stocks is adjusted in the day of results announcement.

E. Grant (1980) affirms that the information content of annual profits should be inversely related to the amount of intermediate information disclosed. He validated his hypothesis by comparing the reaction of the firm listed on the New York Stock Exchange with that of firms whose shares are traded on the OTC market. The first ones are large sized and publish frequently quarterly, while the last ones are rather small and with a low degree of disclosure. Grant demonstrates that the reaction of market prices at the moment of disclosure of the annual results, is much higher for the firms that are activating on OTC market, than that of firms listed on the New York Stock Exchange, which tends to confirm the assumption that the intermediate disclosure of the results reduces the informational content of annual financial statements.

The researchers D. Craig Nichols and James M. Wahlen, after studying the evolution of stock prices, adjusted for market movements, over a period of 18 months, (beginning with the accounting exercise and completed it six months after the closing of accounts), have concluded that the enterprises performances are widely anticipated long before the publication of accounting data. Companies that have increased their earnings caeteris paribus saw the price of their shares grow steadily during the financial year, relating to earnings that have been reported. Instead the enterprises which reduced their earnings have seen their fall during the same period. The have shown that their "sample firms' stock returns during years in which earnings increase beat similar-size firms' returns by an average of 19.2 percent, whereas our sample firms' returns underperform similar-size firms by an average of 16.4 percent during years in which earnings decrease"[12]. This suggests that the information conveyed by the accounting results are largely redundant and that they are already partially processed by the observers of events that are affecting the enterprise, when it announcing its financial results. Also, they concluded that "changes in annual earnings contain substantially more value-relevant information than changes in annual cash flows from operations, highlighting the importance of the information contained in accounting accruals."[13]

In Britain, Rippington and Tâffler (1995) measured the effects of four events considered individually: the announcement of preliminary annual result, the publication of annual reports, the meeting of the General Meeting of Shareholders and the interim results announcement. They wanted to find out if one of these events provides any additional information comparing to another rapports. Their study showed that the reaction of stock market is higher when the preliminary results are announced and that the publication of interim results is the second most important event. However, the publication of annual reports and General Meeting of Shareholders have a very low effect on stock returns. "This indicates that investors incorporate the information from the preliminary announcement of annual results, despite its low reliability, without waiting for confirmation of the information by the

[11] J.F. Gajeweski and B. Quere, „*The information content of earnings and turnover announcements in France",* European Accounting Review, Vol. 19, 2001, p: 679 – 704.

[12] D. Craig Nichols and James M. Wahlen, „How Do Earnings Numbers Relate to Stock Returns? A Review of Classic Accounting Research with Updated Evidence", Accounting Horizons' Vol. 18, No. 4, December 2004, p: 264.

[13] D. Craig Nichols and James M. Wahlen, „How Do Earnings Numbers Relate to Stock Returns? A Review of Classic Accounting Research with Updated Evidence", Accounting Horizons' Vol. 18, No. 4, December 2004, p: 265.

publication of annual reports. On the contrary, the fact that he has low reaction when publishing annual reports suggests that they reported no new information compared to that contained in the preliminary announcement. This publication has rather a confirmatory role."[14]

In the paper called "On the Importance of Accounting Information for Stock Market Efficiency", Jiri Novak talks about the fact that the structure of accounting information can change the valuation of enterprises. He says that "the way in which accounting figures are constructed is unlikely to have any effect on either the expected cash flows or the discount rate. Hence the choice of accounting regime should be irrelevant to company value. In addition, analysts can easily capitalize the investments in intangible assets and apply any impairment rate that they find appropriate; hence they can easily reverse the accounting treatment when estimating company value. In consequence, there is a reason to believe that the change in accounting principles should not affect the company valuations". [15]

3. Conclusions

Concluding, we can say that the studies regarding the impact of accounting information on security prices confirms both the information content of accounting data and financial market efficiency. Rapid evolution of exchange rates and increase the volume of transactions at the time of disclose of interim accounting information or annual financial statements show that the information conveyed by the accounting data are instantly incorporated into prices. For a complete validation of efficiency hypothesis, we must ensure that the investors make good use of accounting information, particular because they interpret it in a pertinent way.

So, the earnings announcements do appear to contain information that is relevant to the stock market, and for the most part it appears that the stock market reacts efficiently to this accounting information. Finally, I can say that this paper tries to contribute to the debates regarding the links between the economic and accounting information and the efficiency of stock markets.

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