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ACCOUNTING INFORMATION RELEVANCE ON CAPITAL MARKETS

Theoretical
article

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Abstract

The research in accounting with specific application on capital markets represents a special resort of accounting research. The development of such studies was favored by the evolution and strong growth of capital markets in our daily contemporary life and by the extension of base accounting concepts to international level. In such circumstances, studies regarding the evolution of concepts like value relevance, efficient markets, accounting information and its dissemination, fair value, are welcomed on the field of accounting research with applicability to the capital markets. This study comes to outline some positions regarding this topic of accounting research.

Introduction

During time, researchers were interested by the component of the relevance of accounting information on different specific markets, and the capital market, being an extremely dynamic one, brought the attention for such researches. The economic literature contains such studies, approaching the subject of accounting information relevance in the process of market value evaluation of specific entities and in the process of generating the stimulus that can lead to best possible decisions for investments on stock exchanges and in specific capital market instruments. This kind of studies are important as the market value of companies activating on capital markets is sensitive to the changes of accounting information and to different accounting indicators, as they fundamentally accompany the decisions of investors based on such information.

Considerations regarding the accounting research with application on the capital market

Research studies presented within specific literature, have played an important role in accounting orientation toward connecting it with the capital market, thus appearing in this line of analysis, a direction of research called Market Based Accounting Research, devoted to the study of the behavior of capital market entities through the use and usefulness of accounting information in decisions taken by management.

This type of accounting research, aimed among objectives the analysis of the financial results in connection with accounting information that affect the profitability of financial instruments. Such accounting information influences thereby the market value of financial instruments as accounting information that is showing a real change in the financial position of an entity determines a change in the market price of financial instruments such as shares, while the changes that have not a real economic implications at the level of economic entities activating on the capital market, lacking informative content, do not affect the present value of expected cash flows and any associated risk, and thus, should not lead to changes of the market price of financial instruments.

A special relevance has the concept of efficient market, which is nothing but an extension of microeconomic theory about the market behavior of investors, assuming that investors observe and understand the signals released by the information medium and that market prices incorporate all information available on them.

The first who managed to blend theory with empirical evidence, was Eugene Fama, this researcher emphasizing the importance of this theory of efficient markets, by correlating

accounting indicators with the market value of the firm. Its theory (Fama, 1970) assumes that an efficient financial market in terms of information will cause a change in the price of a financial asset that incorporates instantaneously the sum of all available information related to that specific financial asset. An efficient market includes systematically and immediately all the developing events, but it also reflects predictions about the future. According to this researcher, there are some pre-conditions for this hypothesis to meet: (a) there are no costs related to trading, (b) there are no costs for obtaining information, (c) all capital market participants agree the influence of accounting information on price changes of financial assets and their future benefits. Moreover, Eugene Fama presents three possible situations of capital market efficiency, having considered the information to be incorporated into the final price of the market:

- strong form efficiency, which implies that the capital market is efficient when the price of a share reflects both public information and private information. In this situation, no group of investors is able to access inside information regarding prices of financial instruments. The negative aspect that he found is that no group of investors may obtain huge profits. The reality shows that this situation of strong form efficiency, which implies that prices convey absolutely all the existing information on the market, is purely theoretical because investors form groups with different objectives and the information cannot be disseminated in an absolute manner and it is not perceived by all investors in the same way.

- semi-strong form efficiency implies that all relevant information is public, and they are rapidly incorporated into the market price. This market price reacts to the publication of any relevant information, by replacing price in a new equilibrium level.

- weak form efficiency implies that there exists not a correlation between current and future prices, so a current or a future price cannot be estimated using information from the past.

Another important perspective regarding the relevance of accounting information on the capital markets can be divided into two research currents. The first stream includes works implemented mainly in the 70s and 80s and they believe that if prices are efficient, they reflect the present value of expected cash flows, becoming a reference point in terms of accounting information related to future cash flows. But these models are restricted in their efficiency by some aspects and among these we enumerate imperfections in relation to efficient markets hypothesis and issues connected to the fact that attention is focused on the utility of accounting information in the sense of

being a determinant of the market price of financial instruments without having analyzed the ability of accounting information to capture data of interest to investors. In this form, the financial instruments valuation model used is that of the dividend actualization one. The problem of determining the value is reduced to estimating the future dividends and the discount rates, and thus, whether the accounting information generates a change in market expectations about the microeconomic future of entities operating on capital markets, the impact will be felt in the price of financial instruments.

The second current includes studies that have appeared since the mid-90s. This studies, attempt to use accounting information to predict future market price and thus were distinguished from previous studies that have focused on evaluating abnormalities seen regarded to efficient markets hypothesis. The deviation of the market price by comparing it to its intrinsic value and therefore, the existence of a yield, is argued by the existence of accounting information that can be used to determine the value of that deviation. A step forward in the development of a theoretical model was made with the advent of the theoretical model of residual benefit brought by James A. Ohlson (Ohlson, 1995), a model which brings the required theoretical framework for selecting accounting variables needed to be incorporated into the model, relying on accounting data known and not on forecasts. However, the researcher concludes that accounting information depends on dividends and the fact that dividends depend, in turn, on accounting information, providing a two-way approach research.

The authors Begona Inchausti Giner, Maya and Miguel Arce Carmelo Reverte Gisbert (Inchausti et al., 2002) consider that the value relevance studies represent a progress from initial studies, admitting that prices are the reflection of investors' expectations about the future of an economic entity and the most attention must be given to those accounting information that relates to these expectations of investors. Without having developed a theoretical model to justify the choice of certain accounting variables considered significant, it is recognized that accounting information is selected and this process is based on professional judgment and intuition.

A different approach from the perspective of the relevance of accounting information on capital market was conducted by the researcher Robert E. Verrecchia. He divides the researches realized in this area (Verrecchia, 2001) in the following segments:

- those whose objective is the represented by the way in which the external dissemination of accounting information is associated with changes in the activity of investors acting on the market as

individual agents who want to maximize their investment value. He calls this type of research association-based disclosure, and this is dissemination based on association. Common to these studies is an attempt to quantify the effects of external dissemination of accounting information on cumulative change or sudden change in investors' reaction through the equilibrium price of assets and trading volumes,

- those whose purpose relates to the discretionary attitude that managers are having to the publication of accounting information already known within the company. The author calls these types of research discretionary-based disclosure of information, and these are research regarding dissemination of information based on discretion. The distinctive feature of these studies is represented by the consideration of accounting information dissemination as an endogenous variable, given the tendency of managers and economic entities to not publish accounting information in its whole or in its detailed elements, due to the cost implied by the full release of information. To this end, as profit maximization is often a primary goal of managers and if there are costs associated with the dissemination of information, managers will establish a balance between the dissemination of those informations that promote market price and the lack of disclosing unfavorable information about their company. Author Robert E. Verrecchia believes that this situation is specific to capital markets, because this is characterized as unique consumer of disseminated information,

- researches who bring in the attention which type of accounting information disseminations are favourite, given that there are no previously published information. This type of researches are called efficiency-based disclosure, and they are releases based on efficiency.

The second segment of the above mentioned researches has generated the most concern from researchers in the field of accounting because it proposed to explain why a complete dissemination is not a beneficial one, but on the contrary, it can be damaging to economic entities. I would like to mention here the research conducted by Michael Alles and Russell Lundholm who are analyzing in an article (Alles, Lundholm, 1993) how the public dissemination of accounting information can enhance the welfare of investors and financial market players, given that some or all of them may have access to expensive private information, along with public information that are required by the supervisors of capital markets and by the accounting regulators. In this segment there is also analyzed the importance that the structure of private information on the capital markets is having on generating demand from investors for further dissemination of relevant information. The value of

public information disclosed under regulations may also differ in terms of relevance when companies are given the opportunity to change the composition and the size of private information they disseminate.

Regarding this second segment analyzed in this research, there were critics who brought to the attention of research that the professional, cultural, financial and educational diversity of capital market actors generates a difficulty in accounting disclosure that benefits all the categories of participants, and among those who have studied this phenomenon is included Oliver Kim, who analyzed (Kim, 1993) in a study such a conflict arising among different investors, and in this line he highlighted situations in which well informed shareholders will prefer to disseminate less information than those less informed. Furthermore, the researcher points out that the structure of mandatory public information needed to be reported is the result of such a conflict between different investors willing to take different risks and with a different access to internal information, and who, as an intention, want different stages and levels of dissemination of the information to other users.

Turning now, one of the solutions proposed by researchers in order to improve the options for choosing the type of information dissemination (Verrecchia, 2001) is represented by reducing information asymmetry, with an emphasis on information asymmetry relative to the cost of capital, this being the factor through which the investors reduce the cost of capital they firmly supply in anticipation of transaction costs that may arise thereafter. These costs are transaction costs that the original, base investors must support in the situation they decide to liquidate their equity holdings at some future moment and in the case of the impossibility of quantifying or at least anticipate them, their investments will be conducted at a level below the potential. That is why a commitment to a wider dissemination of accounting information in turn reduces information asymmetry and thus investments on capital markets are supported. Advertising information on the markets, which he calls positive or negative information for investors, has consequences for the price of financial instruments on the capital markets. This type of information, usually affect more than proportionally, the price of financial instruments. Negative information doubled by risk adversity can produce a greater adverse collective effect, in terms of capital market participants' expectations. This shows that the dissemination does not necessarily have a beneficial role for perfect markets, damaging in some circumstances even on imperfect markets. The conclusions of such early studies were therefore, that the benefits of dissemination are rather illusory, and in the

worst case can even be harmful, in the context in which we relate also to the concept of market efficiency.

If we assume that the number of investors on the capital market is undetermined, prices reflect a combination of the decisions of all participants on the capital market at an aggregate level. The individual actions of the agents have no effect on prices. In a perfectly competitive market each agent acts as if his behavior or his actions have no effect on the market price. When markets are perfectly competitive, the first effect of information dissemination is to redistribute wealth among market participants. There are researchers who have addressed the concept of market efficiency starting from such ideas. Thus, Charles, M. C. Lee, addresses this concept (Lee, 2001) and brings to the attention of researches of the usefulness of accounting information on capital markets, the need to consider the capital markets efficient through the tools these markets have at their disposal, in addition to other markets, and to this end, he brings to discuss the arbitration tool that can balance, together with the forces of supply and demand, the information asymmetry and correct the efficiency of a specific capital market. In the case that a certain information with relevant value is not incorporated in the price, there will be sufficient economic incentives to discover and trade it as a consequence of his knowledge, as a derivative of the financial instrument to which it is attached. As a result of these forces of arbitrage, the price will adjust until it fully reflects those relevant information. In such a manner, capital markets are in a permanent state of adjustment. Individual market actors can act irrationally of course, and sometimes divergent, but market arbitration forces will lead prices towards the line of market efficiency, where all relevant information will be incorporated in trading prices. As a summary, Charles M.C. Lee points out that the accountants, as economists of information, have a comparative advantage in addressing information signals that instill price movements on the markets and to exploit this advantage, they must have a clear picture of the efficiency of markets and the dynamic nature of discovering market prices.

Another researcher who approached issues regarding the relevance of accounting information on capital markets is William H. Beaver, and he grouped the existing literature in several research groups, which are considered to be those that have contributed most to this line in the last ten years and among them are: market efficiency, value relevance, analysts behavior, discretionary behavior. This researcher (Beaver, 2002) concluded that in at least three cases, prices do not behave in an efficient manner and they are: (a) the announcement of results, (b) the ratio between the market value and the book value (market-to-book

ratio), (c) relational aspects with accounting context.

Regarding the situations derived from the announcement of results, Beaver noticed that the first of the various issues affecting market efficiency is the daily availability of data on yields, an issue that increases the explanatory power of the analyze models used, compared to those models in which the data are used on a daily or weekly basis. The evidence that abnormal returns are associated with an inefficient process of announcing the financial results is a complex one. The deviation of the prices of financial instruments from the expectations, once with the announcement of the results, is due to the way in which the results are forecasted by analysts and to weaknesses in processing accounting information. If analysts could process accounting information in a fair manner, the estimated prediction error would be zero. In addition, the analysis module of the analysts does not explain all the process since in less capitalized companies, the effect is more pronounced. So there is a link between market inefficiency and the analysis module of the analysts and of the financial intermediaries.

Studies regarding the behavior of market prices of financial instruments at the moment of the results announcement, which involves dissemination of accounting information, are important because the changes of the results and the forecast's errors have a low correlation compared to other explanatory variables of market inefficiency, such as for instance, the ratio between market value and book value, report known as market-to-book ratio. The negative association between the market and the book value and the corresponding yields appears to be a significant and unexplained one by conventional measures of risk. Recent research attempts to replace market-to-book ratio with the market-to-value ratio, as with recent researches, the market-to-book ratio is viewed as a measure of market inefficiency and since the market prices fail to reflect some factors that are in relation to the value equivalent that is reflected in the book amount, or that includes factors that hardly could correlate with those values.

From this perspective, we can widen the concept of value, incorporating herein fundamental accounting variables, outside the book value and thus, initiating a line of investigation that has the theoretical basis formulated by Feltham and Ohlson model (Feltham, Ohlson, 1995), which estimates the intrinsic value based on book value, profit and the forecasts of analysts. Reports regarding market-to-value ratio, according to some researchers, are associated with the highest abnormal returns. This appearance is consistent in the framework in which the estimators of the value succeed to become substitutes of the fundamental accounting variables, managing to identify those financial instruments

that are valued on the market at a price above or below the optimum one. Market-to-value approach is the one that is prevalent today in the activity of professional researchers, especially because this gets closer the study of value relevance to the concept of fair value.

Accounting information plays a key role in the functioning of the financial system, as an efficient allocation of the available capital resources depends on financial position and performance evaluation of economic entities and the accounting standards, that for entities operating on the capital market should be understood at national, regional and international level, are the key to ensure that this evaluation is done in a way that reflects the economic substance and comparability between different entities and an adequate dissemination of the resulting accounting information.

The critics of fair value are addressed to problematic situations, but the solution proposed to restrict its use remains unconvincing from at least several reasons. The critics do not propose (Veron, 2008) any viable alternative, they ignore the negative impact that would result from the loss of information that are currently provided in the financial statements and affect the distinction between accounting and prudential concerns, which have in fact different objectives and should be separated with greater attention.

Fair value is the central element in this picture outlined by the International Accounting Standards but its implementation brings serious concerns in terms of financial stability. The use of fair value is supported (Sun, 2014) by the fact that it provides more relevant information based on economic substance and this information is more useful to investors even if it introduces a degree of volatility in the financial system.

Although imperfect, at the current stage of research (Masood, Bellalahb, 2014) the processing of information based on fair value connected accounting provides a better range of information about the reported positions and is a better platform for any compulsory or voluntary dissemination of accounting information than assessment based on alternative models, including here any form that is based on historical cost. The advantages of an accounting system connected to fair value (Khan, 2014) exceeds those of a system connected to the historical cost if markets are liquid and competitive.

Conclusions:

The research activity regarding the relevance of accounting information on the capital markets has been a subject of scientific endeavor for many researchers. These studies are, however, analysis of a particular niche, as capital markets are recognized in the academic area and in economic

research for their specific particularities, and thus need to be addressed taking into account the characteristics of these particular markets. In this framework, there is a concern of research on some key issues that relate to the efficiency of markets, the assessment of prices for financial instruments, the dissemination of accounting information and the influence of this process on the present value of economic entities activating on the capital market, the usefulness of accounting information for investors, the relevance of value and the concept of fair value. Nowadays, there is a trend of research on the way of how to connect the creation of accounting information on capital markets to the principles of fair value accounting and subsequently their public release and presentation, accounting based on the fair value concept representing several advantages over any other version that underlies design of accounting information.

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References:

Journal Articles

- [1] Alles M., Lundholm R. (1993). On The Optimality Of Public Signals In The Presence Of Private Information. *The Accounting Review*, Vol. 68: 93-112
- [2] Beaver W.H. (2002). Perspectives on Recent Capital Market Research. *The Accounting Review*, Vol 77, N.2: 453-474
- [3] Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, Vol. 25, No. 2: 383-417
- [4] Feltham G. D. & Ohlson J. A. (1995). Valuation and Clean Surplus Accounting for Operating and Financial Activities. *Contemporary Accounting Research*; 11, 2; *ABI/INFORM Global*: 689-731
- [5] Inchausti B. G., Maya C.R. & Gisbert M.A. (2002). El papel del analisis fundamental en la investigacion del mercado de capitales: Analisis critico de su evolucion. *Revista Espanola de Financiacion y Contabilidad*. Vol XXXI: 1111-1150
- [6] Khan U. (2014). Does Fair Value Accounting Contribute to Systemic Risk in the Banking

Industry?. *Columbia Business School Research Paper Series*, at: https://www0.gsb.columbia.edu/mygsb/faculty/research/pubfiles/4798/Khan_Systemic_Risk_24Mar14.pdf

- [7] Kim O. (1993). Disagreements among shareholders over a firm's disclosure policy. *Journal of Finance*, No. 48(2): 747-760
- [8] Lee Charles M.C. (2001). Market efficiency and accounting research: a discussion of capital market research in accounting. *Journal of Accounting and Economics* 31: 233–253
- [9] Masooda O. & Bellalab M. (2014). Role of Accountants and Fair Value Accounting Leading Towards the Global Financial Crisis. *International Journal of Business*, Vol. 19(3): 237-254
- [10] Ohlson J.A. (1995). Earnings, book values and dividends in security valuation. *Contemporary Accounting Research*, 11(2): 661-688
- [11] Sun L. (2014). Fair Value and Its Economic Consequence on the Volatility Measures of Earnings, Stock Price and Government Debt Yield. *Theoretical Economics Letters*, Vol. 4: 910-915
- [12] Veron N. (2008). Fair Value Accounting is the Wrong Scapegoat for this Crisis. *Accounting in Europe*, Vol. 5, No. 2: 63–69
- [13] Verrechia R. (2001). Essays on disclosure. *Journal of Accounting and Economics*, N. 32: 97-180