

THE RELEVANCE OF RECENT FINANCIAL ACCOUNTING LITERATURE FOR STANDARD SETTING: A LITERATURE REVIEW

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ABSTRACT

This paper offers a summary of the evolution of financial accounting theory and its contribution to accounting standard setting, but with special emphasis since the work of Ball and Brown (1968). The historic analysis focuses on the research that has been dominating the discipline from the late 1960s. This paper evolves from the users' perspective and their problems (the investor) toward the perspective of the preparers and their difficulties (the manager), covering the two opposite roles of financial accounting: an instrument for making investment decisions and a contracting mechanism. The literature review shows that few contributions of accounting research can be extrapolated to the standard setting process of the FASB. The intended audience of this paper is comprised mainly by students who, in a short period of time, need to know the fundamental pieces of research published in financial accounting.

Keywords: Financial Accounting; Users (investors); Preparers (managers); Accounting Standard Setting; Literature Review.

A RELEVÂNCIA DA LITERATURA DE CONTABILIDADE FINANCEIRA RECENTE NA CRIAÇÃO DE NORMAS CONTÁBEIS: UMA REVISÃO DE LITERATURA

RESUMO

O objetivo deste trabalho é fornecer uma síntese da evolução da teoria da contabilidade financeira e sua contribuição para a normatização contábil, a começar pela obra de Ball & Brown (1968). A análise histórica nos permite enfatizar a investigação que tem dominado a área desde o final da década de 1960. Este artigo é desenvolvido a partir da perspectiva do usuário e seus problemas (principalmente o investidor), passando pela perspectiva do preparador e suas dificuldades (principalmente o gerente), abrangendo assim os dois papéis opostos da contabilidade financeira: como instrumento para a tomada de decisões de investimento, e ao mesmo tempo um mecanismo de licitação. A revisão da literatura demonstra que poucas contribuições da investigação contábil podem ser extrapoladas ao processo normatizador dos EUA. Este artigo está dirigido principalmente a estudantes que, em curto período de tempo, precisam conhecer os trabalhos essenciais sobre contabilidade financeira; por isso, em cada seção são citadas as principais fontes, bem como são mencionados os trabalhos de revisão bibliográfica específicos a um tema ou corrente de pensamento em particular, para que os interessados em aprofundar seus conhecimentos sobre o assunto saibam como fazê-lo.

Palavras-chave: Contabilidade Financeira; Usuários (investidores); Preparadores (gerentes); Normas Contábeis; Revisão de Literatura.

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1 INTRODUCTION

This paper reviews financial accounting literature and is intended for students interested in getting a quick idea of financial accounting literature field and evolution. Since the field is so broad, I chose as the nexus all through the paper, the idea that financial accounting research is called to provide some insights to standard setting. I coincide with Watts and Zimmerman (1986) that in accounting we are dealing with the shifting sands of a body of research. Their book's purpose was to provide students with the tools and understanding to draw their own maps of future literature. Therefore this is my personal map based mainly on Watts and Zimmerman (1978, 1986), Hendriksen and Van Breda (1992), Scott (1997) and Beaver (1998).

Although the contributions to financial accounting evolution and understanding have been impressive, there still remain some unanswered questions. The main contradiction found so far is that the best financial reporting system to align manager-shareholder interests need not be the best system to inform investors. Given that there is only one bottom line that is observable by all constituents, the need of accounting standard setting arises. Standard setting is viewed as a form of regulation that attempts to mediate the conflicting interests of managers and investors in financial reporting. However such a clear call for accounting research, it seems that the topic is so complex that it has not been satisfactory resolved yet.

This paper is organized around the role research plays in standard setting. The second section presents the introductory and basic concepts of the economic approach to accounting theory and historic evolution of accounting. Information asymmetry is presented as a central issue because it is the reason for standard setting, because there are investors more informed than others. Section three relates information asymmetry with users and section four relates it with preparers. Section three covers the research focused on users, specially the work done in the measurement and informational perspective, including information content of both earnings and prices. This analysis is complemented with an overview of earnings forecast. Section four pays attention to the research done from the preparers' perspective, in particular to the economic consequences approach, therefore topics such as earnings management, voluntary disclosure and executive compensation are covered. Section five

outlines and justifies the idea that the same bottom line cannot be used for the two perspectives, users and preparers. This idea of the unsolved contradiction is not a new discovery, but the main contribution of this paper is making it evident through an organized literature review of the field that permits a clear understanding of the academic research incompleteness assessment of standard setting as a mechanism to reduce information asymmetry between managers and investors and between different groups of users of financial accounting reports.

2 ACCOUNTING THEORY FUNDAMENTALS

This paper attempts to describe a conceptual framework within which to understand financial accounting and to point to a fundamental gap in our knowledge. In this literature review the purpose of financial accounting research is limited to only provide clues that help in the process of standard setting in order to reduce the information asymmetry between investors and managers. An economic approach to accounting theory must be used because microeconomics theory has provided the basis for contemporary accounting theory. Since accounting exists from ancient times, this paper is only concerned with its evolution and development in the last century, specially in the last three decades of the twentieth century. This section presents a brief overview of the concept and meaning of accounting theory and the different phases of its historical evolution.

2.1 Economic approach to accounting theory

Accounting theory may be defined as a coherent set of hypothetical, conceptual, and pragmatic principles forming a general frame of reference for inquiring into the nature of accounting. Modern accounting theory, which is founded in microeconomics, focuses on the enterprise as an economic entity with its main activities affecting the economy through its operations in the markets. This approach takes as its fundamental premise that financial information has inevitable economic consequences. The objective of accounting theory is to explain and predict accounting practice, with explanation meaning to provide reasons for observed practice, and prediction of accounting practice meaning that the theory predicts unobserved accounting phenomena.

Accountants have long attempted to interpret accounting concepts in terms of economic concepts.

Since the 1960's there has been an explosion of research exploring the correspondence between economic interpretations and accounting data. The objective of most research is to provide an understanding of the theory underlying the economics-based empirical literature in accounting. We assume that the various parties in selecting or recommending accounting and auditing procedures act so as to maximize their own welfare (or expected utility). For instance if the corporate manager's welfare is dependent on the market value of the corporation (as it is via stock option plans, debt agreements, stock awards and other mechanisms), the corporate manager wants to know the effect of the accounting decision on stock and bond prices. Therefore the manager wants a theory that explains the relation between accounting reports and stock and bond prices, in order to assess the impact on their own welfare that a certain accounting rule might have.

While a single general theory of accounting may be desirable, accounting as a science is still in a primitive stage for such a development. The best that can be accomplished in this development stage is a set of theories (models) and sub-theories that may be complementary or competing. Currently competing theories arise in accounting because available theories are still imperfect and none can prove a theory correct beyond any doubt. So far, all academics and researchers can do is test theories' hypotheses.

2.2 Historic evolution of accounting

As a social science, accounting has experienced radical changes during the twentieth century. Although its origins can be traced back to ancient civilizations, like China and Egypt, this paper is interested in reviewing modern accounting, its role and evolution. Through the recent history of accounting three stages can be identified: a) merely descriptive of facts and practices, b) prescriptive, and c) descriptive with explanatory and predictive power. Each one of these phases is analyzed in the following paragraphs.

2.2.1 Merely descriptive of facts and practices

Early in the twentieth century, accounting theory evolved into a stewardship theory of how best to measure assets, liabilities, equity, and earnings, comparing the accounting measures with economic concepts. Early this century we have a good example

of this approach that was aimed at collecting and organizing good and widespread practices. Paton (1922) stated that to avoid improper applications and erroneous general conclusions, the accountant must see clearly the foundation upon which he or she is standing.

Toward that end he listed six postulates:

- 1) the existence of a distinct entity;
- 2) the continuity of this entity;
- 3) the balance sheet equation;
- 4) the monetary postulate (a statement of assets and liabilities in dollars and cents is a complete representation of the financial condition of the enterprise on the date of the statement);
- 5) the cost postulate (cost gives actual value for purposes of initial statement);
- 6) the revenue recognition postulate (net revenue or profit suddenly appears, full-blown, on some specific occasion, commonly that of the sale).

2.2.2 Prescriptive

Previously, accountants were primarily concerned with describing observed practices. Later after the United States (US) Securities Acts of 1933 and 1934, which regulated disclosure by corporations with securities listed stock exchanges and which established the Security Exchange Commission (SEC), accounting theorists became much more concerned with prescribing how firms should report. During this time the stewardship approach was the paradigm. Management is the steward to whom capital suppliers entrust control over a portion of their financial resources. Financial statements provide a report to capital suppliers that facilitate their evaluation of management's stewardship, therefore the "best" measure should be achieved according to these concepts.

In the normative times, the researcher attempted to produce principles, objectives and standards. After the US Securities Acts the accounting literature became normative in the sense that it sought to prescribe the contents of accounting reports. The majority of the research between 1940 and the mid-1960s is not directed at trying to explain why accounting is as it is, but rather at how it should be. During those times accrual accounting was essential to proper financial reporting, since they search for the "best" accrual method. The readings of Paton and Littleton (1940), Chambers (1966) as well as Edwards and Bell (1961) are illustrative of this approach.

2.2.3 Descriptive with explanatory and predictive power

The prescriptive literature's increased substantially following the passage of the 1933 and 1934 US Securities Acts and came to dominate the academic literature by the 1950s. Since the mid 1960s the prescriptive literature's importance has declined, particularly if we measure it as the articles published in the leading academic journals (DYCKMAN and ZEFF, 1984). In the late 1960's the perspective shifted from economic income measurement to an informational approach. Towards the end of the 1970s, a new line of economics-based positive accounting research emerged from the approach opened by Ball and Brown (1968). This research emphasizes the explanation of accounting practice variations across firms and industries, not accounting's role in providing valuation information.

There has been a paradigm shift from the stewardship approach towards usefulness decision approach. The reasons for this shift are the facts that the concept of economic income is not well defined when there are imperfect or incomplete markets for the assets and claims related to the firm, and the inability to reach a consensus of the best method of reporting. There is no consensus among the constituencies on what financial reporting is "best". This is due to the fact that the consequences (wealth distribution, aggregate risk incurred and risk allocation, aggregate consumption and aggregate production, resource allocation, resources devoted to publicly available information, resources devoted to regulation, and resources devoted to private search for information) may affect the various constituencies differently therefore the selection of a financial reporting system is a social choice.

2.3 Information asymmetry in financial accounting

Financial reporting plays two distinct informational roles. One role is to facilitate decision making, as in the case of investors when selecting the best action among the available alternatives, such as investment portfolios. A second role is to facilitate contracting between parties,

such as managers and investors, by having the payment under the contract defined in part in terms of financial reporting data. A key concept is that an income measure that is reasonably correlated with managerial effort may be a different measure than the one that best informs investors which has been the approach adopted by FASB (1974), as the Trueblood Report suggested it and refers to investors facing the adverse selection¹ and moral hazard problems² simultaneously. Under uncertainty, problems arise from two main fronts: 1) those related with users of accounting (investors), and 2) those related with the producers of accounting information (managers), but that are affected by its outcomes.

3 ACCOUNTING RESEARCH FROM THE USERS PERSPECTIVES (INVESTORS)

In this section two main approaches will be described. The information and measurement perspectives are addressed, being the first divided in the information content of earnings and the information content of prices. From an informational perspective, financial reporting provides value-relevant information. A measurement perspective takes a different view, because its origins are in the setting of complete and perfect markets. From a measurement point of view, the financial reporting measures assets, liabilities and equity. Beaver (1998) considers the Ohlson's model contribution as another approach to the relation between accounting data and security valuation, which is considered neither informational nor measurement in its perspective. Despite Beaver's opinion, this paper analyzed Ohlson's model under the measurement perspective, because the implications of its main underlying concept: the Clean Surplus Relation (CSR)³.

3.1 Earnings and stock prices relation

In the literature we can find that two hypotheses have been tested empirically. The Efficient Market Hypothesis (EMH) with the role of accounting earnings in stock valuation, and the mechanical relation between accounting earnings and stock prices, implies that accounting procedures systematically misleads the stock market. The EMH does not predict the direction of the change, only

¹ Adverse selection problem arises because of information asymmetry. The problem is that one person has an information advantage and selects himself into a situation where this information advantage can be exploited.

² Moral hazard problem arises because managers are effort-averse, therefore they will have a tendency to shirk if their performance cannot be linked perfectly with effort. The unobservability of managerial effort, in conjunction with unobservability of state realization, means that outsiders cannot fully separate the effects of effort and luck of managers in running the firm.

³ CSR: ending book value of equity must equal the beginning balance plus earnings less the net dividend.

that the price will not drift up or down after the change is announced. Under the Capital Asset Pricing Model (CAPM), capital structure and accounting procedures are just form and have no value effects. The mechanistic hypothesis predicts that stock prices changes are associated with those particular accounting changes. The mechanistic hypothesis predicts that an earnings increasing accounting change is accompanied by a positive abnormal stock return and that an earnings-decreasing change is accompanied by a negative abnormal stock return regardless of the effect of the change on the present value of cash flows.

If accounting earnings are related to stock prices, the EMH suggests that earnings can be useful measures or indices of value⁴ contrary to the 1960s argument that earnings numbers are useless because they are not measured using a single concept of income. Therefore the mechanistic hypothesis⁵, relation between accounting earnings and stock prices, was discharged implying that accounting procedures cannot systematically mislead the stock market. However, as better data became available and the econometric sophistication increased, some inconsistencies arose. Jensen (1978) presented in a special issue on market efficiency of the *Journal of Finance and Economics* some empirical studies that puzzled the accepted hypothesis derived from efficient markets (BALL, 1978; CHAREST, 1978A and 1978B; CHIRAS and MANASTER, 1978; GALAI, 1978; LONG, 1978; THOMPSON, 1978; and WATTS, 1978).

3.2 Information content of earnings (earning changes lead price changes)

Despite the difficulties of designing experiments to test the implication of decision usefulness, accounting research has established that security market prices do in fact respond to at least the net income component of accounting information. The first evidence was Ball and Brown (1968). This equating of usefulness to information content is called the information perspective of financial reporting, an approach that has dominated financial accounting theory since the mid-1960's.

The relation between stock prices and accounting earnings from an informational perspective implies

that earnings can be viewed as a signal from an information system. One class of research that has examined the price-earnings relation is known as the information content of earnings studies and often uses an events study approach⁶. The evidence of the studies of the late 1960's is also consistent with a more ambitious interpretation that prices behave as if investors perceive that accounting earnings convey information about the value of a security, recognizing this value determination as one of the purposes of accounting.

3.2.1 Early studies on the information content of earnings

Ball and Brown (1968) assumed that EMH is descriptive for accounting purposes based on evidence taken from finance. Given the EMH they investigate whether accounting earnings are empirically related to stock prices and therefore useful. Having found an association between accounting earnings and stock prices, they also investigate whether accounting earnings merely reflect factors already incorporated in stock prices or whether earnings announcements convey information to the stock market (earnings announcements have information content). They found a significant association between the sign of the price changes and the sign of earnings changes, and were able to predict that unexpected increases in earnings are accompanied by positive abnormal rates of return and unexpected decreases by negative abnormal rates of return. Changes in earnings are serially uncorrelated, this implies that earnings follow a random walk. The result of this study is consistent with the hypothesis that earnings announcements convey information.

Beaver (1968) covered a similar empirically oriented research objective, but introduced the event study methodology. It demonstrated that abnormal trading volume and prices change in the week of the earnings announcement and the four following weeks. Earnings do possess information that conveyed to the market is understood and incorporated in the price. The more interesting suggestion of Beaver (1968) is that earnings are an intermediary variable that surrogates fundamental issues.

Beaver, Clarke and Wright (1979) extended the Ball

⁴ EMH does not predict the direction of the change, only that the price will not drift up or down after the change is announced (WATTS and ZIMMERMAN, 1986; page 73).

⁵ The mechanistic hypothesis predicts that an earnings increasing accounting change is accompanied by a positive abnormal stock return regardless of the effect of the change on the present value of cash flows (WATTS and ZIMMERMAN, 1986; page 75).

⁶ Event studies examine the residual price change of a sample of firms for a window of time on either side of an identifiable event, such as announcements of earnings, stock splits, stock dividends, cash dividends, earnings forecasts, and changes in accounting methods (BEAVER, 1998; page 89).

and Brown (1968) study by incorporating the magnitude of the earnings change. The authors assumed that earnings follow a martingale with a drift in the direction of the sign of the trend term. There are several possible reasons for the relation between changes to be less than one to one, for instance stock prices may change even if earnings do not, because interest rates, and the rates at which earnings are capitalized, change.

3.2.2 Studies on the sensitivity of price changes to earnings changes and the Earnings Response Coefficient (ERC)

It is accepted that the correlation between price changes and earnings changes is less than one. At the individual security level the average is 0.38 according to Beaver (1998). Beaver Lambert and Ryan (1987) estimate a linear regression in which price changes are the dependent variable and earnings changes are the independent variable, where a 33% earnings changes on the average is associated with approximately a 10% change in prices. This might be explained by several factors, among them the existence of other sources of information, and transitory components of earnings. Somehow related, Hayn (1994) shows that the earnings sensitivity coefficient is lower for firms reporting losses rather than positive net income. Therefore is concluded that losses are less informative than profits about the firm's future prospects, because losses are not expected to perpetuate. Another interesting element of this line of research is the hypothesis that the earnings sensitivity coefficient varies across firms. Kormendi and Lipe (1987) show that the earnings response coefficient varies not only with persistence but also with growth, risk, and the level of interest rates, which are elements particular to each firm.

The identification and explanation of different market response to earnings information are related with the Earnings Response Coefficient (ERC) research. An earnings response coefficient "measures the extent of a security's abnormal return in response to the unexpected component of reported earnings of the firm issuing that security"⁷.

Scott (1997) makes an interesting list of reasons used to explain ERC:

- a) Beta: lower ERC for higher-beta securities tested in Collins and Kothari (1989);
- b) Capital structure: lower ERC for more highly levered firms tested in Dhaliwal, Lee and Fargher (1991);
- c) Persistence: ERC will be higher the more the good or bad news in current earnings is expected to persist into the future, tested by Kormendi and Lipe (1987);
- d) Earnings quality: higher ERC for higher quality earnings tested by Lev and Thiagarajan (1993);
- e) Growth opportunities: higher ERC are related with higher larger variations of reported earnings tested by Collins and Kothari (1989);
- f) Informativeness of price: the more informative the price is, the less the information content of current accounting earnings will be, this has been tested by Collins and Kothari (1989) and is referred as price changes lead earning changes.

3.2.3 Studies on securities prices and differences in accounting methods

If prices are not dependent on the method of accounting used but accounting earnings are, the ratio of price to earnings will be dependent on the method of accounting used. The choice of accounting method may constitute a signal, which permits the firm to distinguish it from firms that choose other methods.

A typical example is related with Research and Development (R&D) expenditures. Security prices behave as if investors implicitly regard research and development expenditures as assets, even though the firm entirely expensed them for financial reporting purposes. Lev and Sougainnis (1996) shows that R&D disclosures are value relevant because they can alter prices when released, although they also offer evidence that the market may not fully adjust.

Other types of research are those that try to measure the value relevance of a certain standard. Within one country, Nelson (1996) states that there is no evidence of incremental explanatory power relative to book value for the fair value disclosures of investment securities. In international accounting contexts, Alford, Jones, Leftwich and Zmijewski (1993) state that harmonization is almost impossible to reach because countries GAAP have different information content and timeliness.

⁷ Scott (1997) page 112.

3.2.4 Studies on earnings and cash flows

Given that the price of a security is a function of what is expected in the future, it is not unreasonable to suppose that accrual accounting, if it provides data on management's expectations about the future, may in fact convey information over and above the cash flows. Several studies have examined the price reaction to the cash flow and accrual components of earnings changes, being the accrual component the difference between earnings and cash flow. The first study, Ball and Brown (1968), used operating income as surrogate for operating cash flows. The absolute abnormal returns for both positive and negative cash flow changes are slightly lower than those for earnings changes, suggesting that current cash flows are less associated with abnormal returns.

There have been many studies devoted to identify if accruals or cash flows do have more information content. Wilson (1986) proves that cash and total accruals components of earnings have incremental information beyond earnings, and total accruals has incremental information beyond the cash component. Additionally Dechow (1994) demonstrated that earnings are better predictors of firm performance than cash flows. In this same line Dechow, Kothari and Watts (1998) tested a model of earnings, cash flows and accruals, which consistently shows that earnings better predict future operating cash flows than current operating cash flows.

3.2.5 Studies on the timeliness of earnings and earnings drift

The anticipatory effect is consistent with the notion that prices reflect earnings expectations. The positive slope of Ball and Brown (1968) indicates that residual price changes are positive for several months prior to the announcement; therefore annual earnings are not timely information and are preempted by alternative, more timely sources. The anticipatory price movements indicate that earnings expectations are being revised as other information is being disseminated. Earnings are one source of information that alters security prices, although they are only one of many such sources. Ball and Brown (1968) as well as Foster, Olsen and Shevlin (1977) documented significant residual returns after the earnings announcement. The positive drift in the cumulative residual price change continues for the good earnings news portfolio, with a negative drift continuing for the bad earnings news portfolio.

Bernard and Thomas (1989 and 1990) observed the post-announcement drift and the effect was persistent. In 1989 they presented two possible explanations for earnings drift, the first related with a response delay, and the other with market inefficiencies, however they asserted that the first is the one more plausible. In 1990 they conclude that stock prices do not fully reflect the impact of earnings, however it is demonstrated that prices reactions are delayed with the auto-correlation structure of earnings, suggesting that the market prices act as if they do not fully reflect the time-series behavior of earnings. More recently the second plausible explanation has been discharged because it has been demonstrated that the drift is not due to a market failure. Soffer and Lys (1999) worked on the issue that the earnings announcements have an impact on price that keeps on adjusting beyond the announcement date because investors revise their earnings expectations to reflect information disseminated in a more transparent manner.

3.3 Information content of prices (price changes lead earnings changes)

Prices at any given time can be viewed as if they are a function of future expected earnings or vice versa. Prices can be used as a surrogate or proxy for future expected earnings, therefore regressions have to be run assuming that prices are the independent variable, while earnings are the dependent one. This perspective has led to research that examines the information content of prices with respect to future earnings. Price changes lead earnings changes and lead the book value of equity for as much as six years according to Beaver (1998).

Early studies have led to the conclusion that prices provide information about earnings ahead of time and that earnings capture events that affect security prices with a lag. Beaver, Lambert and Morse (1980) is the first main example of price-lead-earnings research, where are developed two forecasting models. The paper shows that prices can be used as a surrogate for additional information, and are basic to infer the earnings process and expected future earnings. This research is updated and the methodology refined in Beaver, Lambert and Ryan (1987).

Most of the research on this approach has been made from the finance area, however I found two recent studies that reflects it on accounting. Kothari and Sloan (1992) argue that the market price is

reflected in earnings announcements, and that the earnings response coefficient trends to zero. In summary is demonstrated that returns tend to lead earnings changes because the historical cost accounting measurement process is not designed to fully reflect expectations of future net cash flows on a timely basis. Further Kothari (1992) states that returns and earnings, measured by the earnings response coefficient, are lowly correlated and this cannot be only based on the weakness of the historical cost accounting. Using a price-leads-earnings perspective is demonstrated that the low correlation is due to the fact that the two measures are based in different information sets.

3.4 Measurement perspective on decision usefulness

The measurement perspective arose because the blind faith on market efficiency was lost. Among the main factor was the research done to explain the post announcement drift that arrived at two possibilities to explain it. One is related to market anomalies or risk adjustments, and the other deals with delayed recognition, as presented by Bernard and Thomas (1989). Due to those anomalies, researchers start to pay more attention to other accounting information besides earnings. Fundamental analysis developed complex models that are revised in the accounting based valuation models section.

In the information content approach, income was central to accounting, while the balance sheet was a statement of residual amounts to be carried forward to future periods. Therefore, valuation of assets is indirect according to this approach. When we are in a measurement approach, the balance sheet is the central focus, and the valuation of assets is direct. Earnings are not the only accounting figures available to investors in the capital market. The use that the market makes of that data suggests that they reflect factors affecting the market value of assets. This reminds us that accounting data is useful in situations where the market price of a claim cannot be observed.

3.4.1 Fundamental analysis

This approach implies a more basic role for financial statements in reporting a firm's value than the information perspective, which views accounting as one of many information sources competing for attention of an efficient market. Originally the principal

focus of fundamental analysis was on valuation aimed at identifying mispriced securities, seeking to determine firms' intrinsic values through a better prediction of future earnings. According to Bauman (1996) fundamental analysis involves inferring the value of a business firm's equity without reference to the prices at which the firm's securities trade in the capital markets.

The accounting system provides information that enhances valuation rather than garbling it. There are some aspects of accounting earnings that capture the information in prices about future earnings and others, such as the transitory error component, that do not. Since prices reflect only the permanent earnings, price changes reflect changes in permanent earnings, that is accounting earnings purged of transitory components. Ou and Penman (1989) initiated rigorous academic research on earnings prediction based on a multivariate analysis of financial ratios. They show that the forecasting model using the subset of the ratios outperforms time-series models of annual earnings in terms of forecast accuracy and concurrent association with stock returns. Ou and Penman (1989) found that information in prices that leads future earnings is contained in financial statements, and demonstrate that these numbers can be summarized into one measure (Pr) that predicts future earnings and also filters out transitory components of current earnings.

3.4.2 Accounting based valuation methods

Accounting-Based Valuation Models (ABVM) use past, present and forecasts of accounting information to infer equity value. Since ABVM are based on accounting figures, they are affected by accounting conventions. For fundamental analysis and valuation, the accounting literature relies on the Dividend-Discounting Model (DDM) like the capitalized earnings model or the residual income model. The Earnings Capitalization Models (ECM) are a transformation of the dividend-discount model that is rewritten in terms of forecasted values of future earnings and future investments. ECM are popular in accounting and much of the earnings response coefficient literature relies on them. Residual Income Valuation Models (RIVM) are a transformation of the dividend-discounting model, but it is expressed directly in terms of current and future accounting numbers, book values and earnings. Starting with a DDM, the residual income valuation model expresses value as the sum of current book value and the

discounted present value of expected abnormal earnings, defined as forecasted earnings minus a capital charge equal to the forecasted book value times the discount rate.

The Ohlson (1995) and Feltham and Ohlson (1995) RIVM have become broadly accepted and tested in the last years. The Ohlson (1995) model assumes a dynamic time-series structure on the abnormal earnings process that affects value. Feltham and Ohlson (1995) model the relation between a firm's market value and accounting data concerning operating and financial activities, proposing a separation between the net operating assets and the net financial assets of the firm that is important in the presence of conservative accounting. Book value equals market value for financial activities, but it can differ for operating activities. Operating and financial activities raise distinct accounting measurement issues, which, in turn, influence the analysis of a firm's market value as a function of the financial statements' components. Financial activities involve assets and liabilities for which there are relatively perfect markets. In contrast the accounting for operating assets precipitates more intricate concerns because these assets are typically not individually traded in perfect markets.

3.5 Earnings forecast

Econometric concerns with the time series behavior of accounting earnings as a surrogate for returns, led to the studies of the time series behavior of accounting earnings. The time series behavior of accounting earnings is of interest because of the use of earnings expectations in valuation models, and because of its implications for the hypotheses advanced in the smoothing literature. Watts and Zimmerman (1986) quote that Little (1962) and Little and Rayner (1966) investigated the growth rates in the accounting earnings of British companies; Ball and Watts (1972) investigate the time series of annual earnings of US corporations; and the best time series prediction of annual earnings is likely to result from using quarterly, not annual earnings.

Previous research employs at least three different approaches to expand the information set beyond the past time series of earnings in obtaining conditional earnings forecasts. From the information content of earnings perspective, the forecasts are made assuming that earnings are the independent variable and price the dependent, while that relation

between variables is inverted in the information content of prices perspective. In the measurement approach, the independent variables are earnings and other accounting fundamentals besides earnings.

3.5.1 Information content of earnings

This is the type of forecast that has been more broadly studied. The first antecedent goes back to Ball and Brown (1968) and its outcomes are summarized in the term "random walk". A large body of evidence suggests a random walk drift is a reasonable description of the time-series properties of annual earnings, owing to Ball and Watts (1972) the first systematic study. Mean reversion is another important property found in early research. Many papers covered this issue since Brooks and Buckmaster (1976); Fama and French (2000) provides a good literature review, besides estimating a rate of mean reversion of 38% per year, being it higher when profitability or annual earnings are far from the mean in either direction.

A conditional forecast is obtained using information on one or more determinants of the autocorrelation coefficient of earnings. Soffer and Lys (1999) work on the issue that the earnings announcements has an impact on price that keeps on adjusting beyond the date announcement because investors revise their earnings expectations to reflect information disseminated in a more transparent manner. Bernard and Thomas (1990) conclude that stock prices do not fully reflect the impact of earnings, however it is demonstrated that prices reactions are delayed with the auto-correlation structure of earnings, suggesting that the market prices act as if they do not fully reflect the time-series behavior of earnings. More recent studies estimating conditional forecasts include Dechow, Hutton and Sloan (1999) and Fama and French (2000).

3.5.2 Information content of prices

Some other researchers inverted the variables commonly used. Price-based forecasts are used to improve on the time-series forecasts of earnings on the premise that prices reflect a richer information set than the past time series of earnings. Beaver, Lambert and Morse (1980) indicate that price-based forecasting models of earnings can predict future earnings better than forecasting models based on a statistical extrapolation of past and current earnings. Later Beaver, Lambert and Ryan (1987) explain

current percentage change in earnings as a linear function of current percentage change in prices and lagged percentage change in prices. There are not many studies on this approach because according to Kothari (2000) it has had only a modest impact on forecasting.

3.5.3 Measurement perspective (fundamental analysis)

Book value also explains security prices. Market Value of Equity (MVE) is a balance sheet approach that relates accounting data to equity valuation. The MVE equals the sum of the market values of assets less the sum of the market value of liabilities. If the coefficient on a particular financial statement variable is significant and of the predicted sign, market prices act as if that variable is being priced conditional on the other variables in the equation and that item is defined as value relevant. Ou and Penman (1989), Lev and Thigarajan (1993) and Beaver and Ryan (2000) use financial statement analysis of income statement and balance sheet ratios to forecast future earnings and stock returns. The referred papers are interested in identifying mispriced securities, being superior earnings forecasts only a mere intermediate product for this line of research.

3.5.4 Analysts' forecasts

Another perspective to forecasting can be analyzed besides the three previous that are considered as pure statistical forecasting models. This new approach arise because accounting researchers have adopted analysts' forecasts as a proxy of choice for market earnings expectations. If a subjective element is included, we can refer to those studies focused on analysts' forecast, while if we detach earnings forecast from any economic content, pure statistical models can be analyzed. Schipper (1991) points out that analysts have consistently been shown to forecast earnings more accurately than do mechanical models. Some influences over forecasts have to be considered, such as analysts' incentives. McNichols and O'Brien (1997) documented the bias analysts have when selecting companies for forecasting. The bias is assumed to be the link to fundamental information about the stocks. On the other hand Holthausen and Larcker (1992) expose that a statistical model without consideration of economic fundamentals better predicts abnormal earnings. As we can see there are proofs and counter-proofs for each approach presented.

4 ACCOUNTING RESEARCH FROM THE PREPARERS PERSPECTIVES (Managers)

The empirical research in this area started in the 1980's, perhaps because its proposed cause-effect relationships of information asymmetry were not so obvious. In this section the economic consequences, positive accounting theory, game theory, earnings management, voluntary disclosure and executive compensation plans are presented.

4.1 Economic consequences literature

There has been little discussion of management's interests in financial reporting to this point. This will involve us in a new line of thought that differs sharply from the investor-decision-based and efficient-market-oriented theories. Economic consequence is a concept that asserts that, despite the implications of efficient securities market theory, accounting policy choice can affect firm value. The presence of economic consequences of accounting policy choice is important for several reasons and rises the question of why accounting standards exist. These consequences arise from contracts that firms enter into, such as executive compensation contracts and debt contracts.

Economic consequences are the impact of accounting reports on the decision-making behavior of business, governments and creditors. Zeff (1978) points out that the very intervention by outside parties in the setting of standards appears to be due to their belief in the fact of economic consequences. The first claim of Zeff (1978) is contemporaneous with the genesis of the Positive Accounting Theory (PAT). Watts and Zimmerman (1978) assert that accounting standard setting in the USA have resulted from a complex interaction among numerous parties, each party seeking their own interest, and assuming that individuals act to maximize their own utility. In a posterior review Watts and Zimmerman (1990) acknowledge that PAT offers an explanation of accounting practice, albeit incomplete because of observed unexplained regularities and methodological weaknesses. This line of research did not get too far because no economic consequences were found, in spite of its interesting contributions to the theory.

4.2 The Positive Theory of Accounting (PAT)

The theory of accounting practice is based on and is an outgrowth of two economic-based theories: the

theory of the firm of Coase (1937) and the theory of government regulation. The economic theory of the firm conceptualizes the firm as a nexus of contracts that reduces the costs generated by the (self-interested) parties to the firm (agency costs). Under the property rights or contracting view, the firm has no separate existence because it is just a nexus of contracts, being accounting an integral part of the contracts that define the firm. The economic theory of regulation conceptualizes the political process as a competition among self-interested individuals for wealth transfers. Accounting numbers, in particular earnings, are used in the political process to justify corporate regulation and to regulate corporations.

PAT argues that firms' accounting policies will be chosen as part of the broader problem of minimizing contracting costs, so as to attain efficient corporate governance. However giving management flexibility to choose from a set of accounting policies opens up the possibility of opportunistic behavior. PAT assumes that managers are rational and will choose accounting policies in their own best interests if able to do so. The choice among procedures depends on both contracting and political process cash flow effects⁸. If accounting is an important part of the firm's contracting process and agency costs vary with different contracts, accounting procedures have the potential to affect firm value and / or the manager's compensation.

Positive Accounting Theory has developed three hypotheses. Following the tradition of accepted research in accounting the three of them are empirically testable. Therefore we have:

- 1) Bonus plan hypothesis: *ceteris paribus*, managers of firms with bonus plans are more likely to choose accounting procedures that shift reported earnings from future periods to the current period. The reference study on this hypothesis is Healy (1985) who tested whether managers would opportunistically manage net income so as to maximize their bonuses under

their firms' compensation plans.

- 2) Debt/equity hypothesis: *ceteris paribus*, the larger a firm's debt/equity ratio, the more likely the firm's manager is to select accounting procedures that shift reported earnings from future periods to the current period. Like accounting-based compensation plans, accounting-based debt covenants will be effective only if some restrictions are placed on managers' abilities to control the calculation of the numbers. Holthausen (1981) proposes that if non-return data is used, then accounting technique selection based on bond covenants and compensation contracts are better addressed and understood.
- 3) Size Hypothesis: *ceteris paribus*, the larger the firm, the more likely the manager is to choose accounting procedures that defer reported earnings from current to future periods, because of higher political costs and visibility within the society. Accounting procedure changes affect political costs and the political process's wealth transfer. In this area there have been studies on political cost, like the one of Cahan (1992) who show that the incentive to reduce income will increase with the visibility of the company, more precisely in this case with the monopoly antitrust investigation.

The evidence provided by numerous research studies is consistent with the debt/equity hypothesis and the size hypothesis. However the evidence on the bonus hypothesis is mixed according to Watts and Zimmerman (1986).

4.3 Game theory as a toll for analysis of accounting choices

Game theory⁹ can help us to understand how managers, investor, and other affected parties can rationally deal with economic consequences of financial reporting. The contract-based role for financial statements that emerges from game theory

⁸ Jensen and Meckling (1976) provide an appropriate and complete reasoning. The owner-manager is viewed as the agent and the shareholder as the principal. The individual derives utility from money and non-pecuniary benefits such as on-the-job leisure. Bonding activities are the expenditure of resources by owner-managers to guarantee that they will limit their activities in accordance with a contract. Monitoring activities involve the expenditure of resources by the outside shareholders to guarantee that owner-managers limit their activities in accordance with a contract.

Spending continues until the marginal utility of an extra dollar spent on non-pecuniary benefits is equal to the marginal utility of the reduction in the present value of the firm's cash flows. The reduction in the owner-manager's utility is the agency cost. Owner-managers write contracts with shareholders to restrict their actions, to reduce agency costs, therefore is the agent not the principal who has the incentive to contract for the monitoring.

Fama (1980) suggests that information on manager's opportunistic value-reducing behavior eventually becomes known and affects their reputation. If managers do not use the most efficient existing means of convincing the labor market that they will consume no more than the average perquisites, they bear the cost in a lower pecuniary compensation.

⁹ Game theory models the interaction of two or more players. This interaction occurs in the presence of uncertainty and information asymmetry, assuming that each player maximizes his or her expected utility. Observability of an agent's effort seems unlikely in an owner-manager context because of the separation of ownership and control that characterizes firms in a developed industrial society.

Holmstrom (1979) assumes that the agent's effort is unobservable by the principal, but that the payoff is jointly observable. Therefore the payoff is to serve as a basis for contracting, if it is observable to both parties. If net income is sufficiently observable, principal and agent are willing to use it as a measure of payoff, otherwise, other payoff measures, such as share price may take over.

enables us to complete our reconciliation of the theory of efficient securities markets and economic consequences that would allow us to explain the inconsistencies found in Jensen (1978). We shall see that it is possible for securities markets to be efficient and for accounting policies to have economic consequences once the conflict implications for financial reporting are understood. Thus an interesting implication of the Holmstrom (1979) model is that, just as net income competes with other information sources for investors under EMH, it competes with other information sources for motivating managers under agency theory.

4.4 Earnings management

Schipper (1989) defines earnings management as a purposeful intervention in the external financial reporting process, with the intent to obtain some private gain. Here the problem is in the empirical research design, because the researcher cannot observe non-discretionary accruals separately from discretionary ones. So far the evidence on earnings management is suggestive but not conclusive. Managers may engage in a variety of earnings management patterns. The most important ones include reporting large losses (big bath hypothesis), minimizing income (in periods of high profitability that is expected to reverse), maximizing income (until a limit is reached where no additional benefits can be obtained), and smoothing income (since managers are risk adverse they prefer a bonus pattern with less variance, or want to reduce the cost of capital due to the market perception of less risky firm with lower earnings volatility).

Research in earnings management covers different topics. Trueman & Titman (1988) rationally explains income smoothing, asserting that it is not due to managers' beliefs that investors pay more for a firm with a smoother income stream, in fact smoothing increases the value of the firm through debt. McNichols and Wilson (1988) tested two hypothesis of earnings management in income smoothing for bad debt provisions and compensation plans. Evidence is found that firms manage their earnings by choosing income-decreasing accruals when income is extreme, whether too high or too low. Holthausen, Larcker and Sloan (1995) show a decrease of earnings when performance is above the upper bound of their bonus plan, however nothing happens at the lower bound as predicted by Healy (1985). The authors recognize limitations to their research based on the fact that measures of earnings

manipulations are very crude and poorly specified.

As indicated, one of the main problems of earnings management is related to the research design. Kothari (2000) identifies five well-known models of detecting earnings management: the DeAngelo (1968) model, the Healy (1985) model, the industry model used in Dechow and Sloan (1991), the Jones (1991) model, and the modified-Jones model by Dechow, Sloan and Sweeney (1995). Holthausen, Larcker and Sloan (1995) and Dechow, Sloan and Sweeney (1995) tested in terms of specification and power some of those models; although Jones (1991) and its derivatives are preferred to the others, none of them provides conclusive evidence.

Many argue that there must be limits to earnings management, or investors and firm owners would quickly lose confidence in net income as a reliable measure of firm performance. It is agreed that managers' superior information makes financial reporting potentially informative to outside investors, however, conflicts of interests between managers and shareholders, and imperfect accounting standards and auditing create distortions in financial reports (Healy and Palepu, 1993). On the other hand, some earnings management is desirable from the standpoint of owners and managers, both because it provides room to maneuver to avoid the costly consequences of contracting renegotiations, and because it provides a vehicle for the enhancement of firm value by communicating inside information to the market. In the same line of reasoning, Healy and Palepu (1993) assert that disclosure strategies provide a potentially important means for corporate managers to impart their knowledge to outside investors, even if capital markets are efficient.

4.5 Discretionary accounting and voluntary disclosure

Discretionary components of financial reporting accruals are priced differently by the market than non-discretionary components. Beaver and Engel (1996) states that the market prices discretionary and non-discretionary components of accruals in different manners. Discretionary behavior that understates bad news and overstates good news has been called opportunistic view of discretion. A second view flows from the signaling literature and states that management will use the discretion and judgment to reveal some of his private information to investors. As in earnings management, evidence provides support for both opportunistic and signaling

perspectives. For instance, Subramanyam (1996) demonstrates that an efficient market can price discretionary accruals because managers that want to communicate fundamental information provide them.

The first research on this line can be traced back to the early 1980's. Beaver, Eger, Ryan and Wolfson (1989) demonstrated that additional disclosures of various characteristics of bank's loan portfolios do have information content, and is shown its impact on the stock prices. Healy and Palepu (1993) present a paper where the motivation of managers to provide voluntary disclosures is analyzed. Their conclusion is that voluntary disclosure only bridges the information gap between managers and investors, not being affected the efficient markets hypothesis. Skinner (1994) is puzzled with why bad news is disclosed.

4.6 Executive compensation

Most compensation plans are based on net income and share price, which are considered as two measures of manager effort. In conjunction with share price, the basing on net income helps control both the amount of risk these plans impose on managers and the length of their decision horizons. To align in a proper manner the interests of managers and shareholders efficient contracts need to balance high motivation without imposing too much risk on the manager. Allocating too much risk to the manager might generate dysfunctional consequences such as shortening a manager's decision horizon, adopt earnings-increasing tactics opposite to the firm's longer-run interests, and avoid risky projects.

The seminal paper in this area has been Healy (1985). The author identifies that managers tend to reduce income when they are below the lower bound of their bonus plan or above the upper bound, but they tend to increase earnings while they are in the middle. Kaplan (1985) points out that Healy's methodology could be improved, being this done by Holthausen, Larcker and Sloan (1995). This last paper showed that earnings tend to be decreased when performance is above the upper bound, however nothing happens at the lower bound as predicted by Healy (1995). Lambert and Larcker (1987) tested the hypothesis that compensation is strongly positively related to return on equity, but weakly to the security's market return. Therefore compensation seems to be more related to accounting figures than to market values. Bushman, Indejikian and Smith (1996) go

further in this line of research adding a third performance measure. They detect that roughly two thirds of bonuses are based on corporate performance measures (whether accounting or market based), and only one third is based on individual performance, therefore increasing the incentive of managers to manipulate accounting figures such as earnings.

5 STANDARD SETTING PROCESS AND ACCOUNTING RESEARCH

In this last section, I consider why it could be interesting to introduce the standard setting process as a potential way to solve the conflicts posed by the current accounting model. According to PAT, rationales differ and are inconsistent across accounting standards because they are the result of political action. The outcome depends on the relative costs that the involved parties are willing to incur to achieve their goals. The establishment of accounting policies determining the amount and type of information disclosure, measurement rules and procedures, and the form of presentation of financial statements is a complex process.

Accounting has economic consequences for its users, that is, some benefit and some lose financially when a new standard is promulgated. As a result, the choice of accounting standards and the principles used to justify them are as much a political as a technical choice. Beaver (1998) provides a good summary of potential economic consequences:

- a) wealth distributions among investors and others;
- b) aggregate level of risk incurred and risk sharing among individuals;
- c) rate of capital formation;
- d) allocation of resources among firms;
- e) use of resources for interpretation of disclosures;
- f) use of resources in disclose regulation;
- g) use the resources in the private-sector search for nonpublic information.

5.1 Theory and political limitations of standard setting

Standard setting is both a political process and an economic one. The fundamental mission of accounting standards is to reconcile financial reporting and efficient contracting roles of accounting information in other words, it seeks to determine the socially right and fair amount of information.

To properly answer why regulate, we must consider

information as an economic commodity. The issue will be viewed as regulating the flow of information to the investment community, therefore the analysis falls into two major categories: efficiency and equity. The literature has identified three arguments that support the need for regulation. All three arguments rest on the premise that a public agency, such as the SEC, has a comparative advantage in forming collective agreements of a certain form, because it is a regulatory body set up by an accepted authority that has enforcement capabilities.

The three arguments are:

- a) Financial reporting externalities;
- b) unequal possession of information among investors;
- c) management incentives to disclose (to avoid the adverse selection in the term of Akerlof, 1970).

The primary reason for regulation is to protect individuals who are at an information disadvantage, or in the terms of this paper, to reduce information asymmetries that might affect investors interests. Investors, including securities commissions acting on their behalf, push for additional information, including valuation information. Managers push the other way when they perceive that proposed standards will affect their flexibility under the contracts they have entered into and inhibit their ability to communicate with the market through accounting policy choice. The standard setter must then seek a compromise between these conflicting interests. As a consequence, the structure of certain standard-setting bodies is designed to facilitate such a compromise. An early opposite argument was presented by Demski (1973) who asserted that there is not a single set of accounting standards that could maximize the expected utility of all.

5.2 Linkage of previous sections with standard setting

The question that was in my mind from the beginning of this literature review relates to the reasons that drive the academic environment to make so many studies and advancements to understand accounting *per se* and its effects on business and economic decisions. Following Tua Pereda (1990) we can assess the impact of the empirical research regarding three main areas. The first line of research, related with verifying the information content of earnings through its impact on price, is the one that provides the clearer and more conclusive results. In fact we can consider that it has been demonstrated the information content of earnings (BALL and BROWN,

1968; BEAVER, CLARKE and WRIGHT, 1979; BEAVER, LAMBERT and RYAN, 1987, LEV, 1989; BERNARD and THOMAS, 1989 and 1990; SOFFER and LYS, 1999; and HOLTHAUSEN and WATTS, 2000). The second line of research that was interested in testing the effects that voluntary changes of accounting policies have on stock prices only provides weak evidence with results that are far from being conclusive. However there is a general agreement regarding the fact that the market differentiates, and prices differently, voluntary changes that affect the value of the firm (via cash flows, taxes, debt covenants, compensation contracts) from those that are only cosmetic changes and do not affect the value of the firm (HEALY, 1985; TRUEMAN and TITMAN, 1988; HEALY and PALEPU, 1993; SKINNER, 1994; HOLTHAUSEN, LARCKER and SLOAN, 1995; BEAVER and ENGEL, 1996; and DECHOW and SKINNER, 2000). The third line of research, interested in testing the impact of the accounting standard setting process on the securities prices, had been qualified as inconclusive, contradictory, and limited. The determination of the best method of accounting through this kind of research is still pending. However this line of research has helped in two senses. First, it helped to identify those variables that play a role in standard setting and that affect securities' values; and second, it helped the regulatory bodies to acknowledge the impact their regulation have (COLLINS, ROZEFF and SALATKA, 1982; MCDONALD and MORRIS, 1984; ZIEBART and KIM, 1987; LOBO and SONG, 1989; KHURANA, 1991, WASLEY and LINSMEIER, 1992; AMIR and ZIV, 1997; AYERS, 1998; PARK, PARK and RO, 1999; and WONG, 2000).

6 CONCLUSION

In this paper I tried to summarize the financial accounting literature that might support standard setting. Microeconomics and finance fundamentals of current accounting research were introduced. A historical analysis allows us to focus on the research that has dominated the field since the late 1960's. This paper evolved from user perspectives and problems (mainly investors) towards preparer view and difficulties (mainly managers), covering the two conflicting roles of financial accounting as an investment-decision-making tool and a contracting mechanism. The purpose was to review the accounting research to understand it and to see what contributions it has made to standard setting. The main contributions have been helping in understanding markets functioning and reactions as

well as manager behaviors and incentives. Few contributions of accounting research can be extrapolated to accounting standard setting process, outcome and effects.

The conclusion is that financial accounting projects a false image of a mature discipline, just because most of its researchers discuss similar issues. There have been important breakthroughs in the last 40 years of accounting, but very few during the 1990s and beyond. So far it seems that the question posed at the beginning of the paper remains unanswered. Given that accounting was born in the crisis of 1930 with the aim to reduce information asymmetries through standards, it is expected that accounting research must help in this regard. In spite of such a clear call, this review shows that most of the previous work of financial accounting academicians was not very helpful to the standard setting task. Perhaps this happens because financial accounting research is based on hard disciplines such as economics and finance, while it is agreed that accounting standard setting is more a political process that lacks the hardness required by publishable research in financial accounting journals.

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