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MARKET MISVALUATION and EARNINGS MANAGEMENT

Evidence from the Italian financial market

(Summary)

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I. Introduction

Capital markets rely on credible financial accounting information. Good quality in financial reporting helps investor to better assess firm value and performance and to make improved investment decisions. Financial scandals in the United States and Europe (like Enron, Worldcom, and Parmalat) have highlighted the importance of financial reporting quality, with a special emphasis on earnings quality.

Due to the strong relationship between earnings quality and the financial scandals happened in the last ten years, earnings management has become a pressing issue in accounting academic debate and in practice. The corporate scandals of the late 1990s and the early 2000s, in United States and in Europe, were arguably the result of some extreme form of earnings management activity[1].

Previous researches have shown that managers engage in earnings management for various reasons and the proclivity of management to manipulate earnings information has increased over time (Brown, 2001; Lopez and Rees, 2001; Barton et al., 2002). Several evidences indicate that earnings manipulation has become widespread. Graham, Harvey and Rajgopal (2004), for example, in a survey on 401 CFO asked the following question: *"Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which the following choice might your company make?"*. They find 80 percent of CFOs saying that their companies are willing to delay discretionary spending such as R&D, advertising and maintenance, and over 55 percent saying that their company would knowingly sacrifice a small value by delaying the start of projects. Almost 40 percent would book revenues now, rather than next quarter, or provide incentives for customer to by now. The reasons for earnings management are different and range from the intention to satisfy analysts' expectations, to realize bonuses (so, reasons related to compensation issue), to maintain competitive position within the financial market, or reasons related to a new company's acquisition.

[1] Earnings management is a phenomenon clearly defined from the academic literature: *"...earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers"* (Haley and Wahlen, 1999). The extreme form of earnings management (financial fraud), instead, is defined from the professional literature as: *"...the deliberate misrepresentation of the financial condition of the enterprise accomplished through the intentional misstatement or omission of amount or disclosures in the financial statement to deceive financial statement users"(*Certified Fraud Examiners, 1993). Both earnings management and fraud have the same intention to device investors. The difference is in the meaning: while "management" is usually within GAAP fraud deviates from this.

Jensen in 2005 theoretically introduced hypotheses about the overvalued companies. In Jensen's argument, managers of overvalued companies face two options. First, the manager can communicate to the market that he can not deliver the expected operating performance to justify the inflated stock price either by telling the market outright or by waiting until the next reporting date and, then, they report a negative performance surprise. This option has potential to negative affect the manager's compensation and career. The second option, instead, includes action to inflate reported performance to try to justify the inflated stock price. Such actions could be overinvesting through acquisitions or expansions, commitment of frauds, and managing earnings. By doing so, the manager hopes to delay the negative compensation and career consequences, destroying substantial shareholder value in the long run.

According to Jensen's prediction, as a firm becomes more overvalued the pressure to meet increasingly unrealistic earnings targets becomes greater, encouraging managers to act in a ways that are detrimental in the long run value of their firms.

Based on this theoretical framework and on previous empirical studies done in this field, the present research is organized around the following questions: Is there any relation between firm's market valuation and earnings management? Do the managers of overvalued (undervalued) companies have strong incentive to continue overvaluation (undervaluation) engaging in earnings management?

Following Houmes and Skantz (2010) we assume as basic idea that market price drives reported earnings opposed to the standard model where reported earnings drives market price. We hypothesize that there will be a positive relation between firm's market value and earnings management and, in particular, that in case of increasing in firm's market value managers have the incentive to engage in income-increasing earnings management.

We also hypothesize that managers of companies characterized by a decreasing in firm's market value engage in income-decreasing earnings management, demonstrating that managers of undervalue companies may sustain the undervaluation to help themselves through accounting manipulation to correct accounting trickery.

As primary test, we regress the change in total accruals from year t-1 to year t on factors known to be associated with accruals (firm size, leverage and company's performance) and change in firm's market valuation from year t-1 to year t (measured through market-to-book ratio).

We find that an increase in firm's market value (overvaluation) is associated with income-increasing earnings management (measured considering positive change in total accruals) and, a decreasing in firm's market value (undervaluation) is associated with income-decreasing earnings management (measured considering negative change in total accruals). The first finding empirically demonstrates the validity of the Jensen's hypothesis of the overvalued company in the Italian market.
Instead, the positive relation between a decreasing in firm' s market value and income-decreasing earnings management represents, in our opinion, the managers' incentive in correcting previous upward accrual manipulation, avoiding to engage in the extreme case of earnings management (non-GAAP earnings management) that is likely to imply accounting frauds (related to Badertscher (2010) study about the choice of alternative earnings management mechanism).

Another set of test examines the robustness of the primary results. In particular, we run the analysis considering different sample composition in order to verify if the primary finding could be driven by different time series analysis. This robustness check allows, at the same time, to control for the possible bias in the results due to the IFRS introduction in 2005.
The second and most important test is related to the possible bias due to the effect of sales growth in the primary test. As we will explain, the primary test could be influenced by sales growth that may have an impact on both dependent (change in total accruals from year t-1 to year t) and independent (change in firm's market value from year t-1 to year t) variables. To control for this possible bias, we develop the empirical analysis considering change in discretionary accruals (as estimated through Jones model (1991)) as dependent variables rather than change in total accruals.
Our study provides useful information on the relation between firm's market value and earnings management and makes several contributions to the literature.
First, most researches so far have been carried out using US data. To our knowledge no one study has been conducted considering insider system countries that differ from the US (or UK) one. In this study, we provide evidence on the relation under analysis for the Italian market with the ambition to extend the empirical analysis to other European countries in order to verify if our findings could be generalized to others insider system (such as, Germany, France, Spain, etc…etc…).

Second, the study investigates a highly significant and yet under-researched segment of the economy. It will contribute to the agency costs of overvalued equity literature framework looking into the broad issue of the complex interaction between firm's market overvaluation (undervaluation) and earnings management direction, analysing both income-increasing and income-decreasing phenomena. The evidence and the potential results of the study could be relevant in order to understand how managers play earnings management *"game"* considering different capital market structure from the US one and, in which extant it is important to improve the efficiency of securities markets in order to protect investor' interest.

The remainder of the research is organized as following. In section II the paper reviews the literature (starting from the classical theory of the efficient market hypothesis through the behavioural finance approach and, the earnings management literature); in section III we develop our hypothesis. In section VI we briefly introduce the Italian institutional contest. Section V explains the sample, data and the variables used in the empirical analysis, while section VI explains the regression models and provides the descriptive statistics. Section VII illustrates the empirical results and in section VIII we conclude.
In this short version it is required to report only the relevant part the research in order to quickly provide the main content.

The agency theory of overvalued equity and earnings management

The theoretical framework of the research is based on the Jensen's theory of th agency cost of overvalued equity.
An extremely interesting research field came out after the Jensen's paper 2005. As we already know, he wrote the first paper about agency costs with Meckling in 1976, where agency costs were defined as the costs associated with cooperative effort by human beings. They focused on the agency costs arising when one entity, the principal, hires another, the agent, to act for him or her. They define agency costs, in the original paper, as the sum of the contracting, monitoring and bounding costs undertaken to reduce costs due to the conflict of interest, plus the "residual loss" that occurs because it is generally impossible to perfectly identify the agents' interest with that of the principal. In that

article they viewed markets as potent forces to help controlling agency costs (Jensen and Meckling, 1976).

In a paper published in 2005 Jensen pointed out how securities markets can, sometimes, create and exacerbate conflict of interest between managers and owners rather then solve them. He pointed out that this paper can be understood as expanding the range of costly conflict of interest that the Agency Model can handle, in particular market and managerial optimism and the forces that allow or even encourage markets to become enablers of value-destroying managerial behaviour.

The main focus of the Jensen's paper is that *"people are paid not for what they do, but for what they do relative some target"*. This perspective leads people to game the system by manipulating both the setting of the target and how they meet their targets. These counterproductive target-based budget and compensation systems provide the fertile foundation for the damaging effects of the earnings management game with the capital markets (Jensen, 2005). CEOs and CFOs know that the capital markets will punish the entire firm if they miss analysts' forecasts. As managers who meet or exceed their internal targets receive a bonus, the capital markets reward a firm with a premium for meeting or beating analysts' expectations.

Before Jensen's paper (2005), Skinner and Sloan (2002) demonstrated that when a firm produces earnings that beat the consensus of the analyst forecast for the quarter, the stock price raise on average by 5,5 percent more during the quarter than the returns on a size-matched portfolio. For negative earnings surprises the stock price falls on average by – 5,04 percent more during the quarter then the size-matched portfolio. Generally, the only way for manager to meet those expectations, year and year out, is cook their numbers to mask the inherent uncertainty in their business. When number are manipulated to tell the markets what they want to hear rather then the true status of the firm and, when the real operating decisions that would maximize value are compromised to meet market expectations, real long-term value is being destroyed (Jensen, 2005). Jensen theoretically pointed out that overvalued equity creates a setting in which some managers (agent) take actions to support the firm's short-term stock price, and those actions are costly to the current debt-holders and long-term stockholders (principal). *Under the agency theory of overvalued equity, managers of overvalued firms are likely to manage their firms' earnings to enhance the overvaluation.*

Since 2005, several empirical studies have been done in order to demonstrate the validity of the Jensen's prediction. In the following section we provide a review of the researches analysing the relation between shares misevaluation and earnings management.

Empirical evidences supporting the Jensen's agency cost of overvalued equity and earnings management

The Jensen's predictions on the agency cost of the overvalued equity has opened a wide field of research that demonstrated the validity of his predictions, in particular focusing on the relation between overvalued companies and earnings management.

Kothari et al. (2006) provide empirical evidences that support the Jensen's argument. Their study is based on the assumption that agency theory of overvalued equity predicts that the overvalued firms are likely to engage in income-increasing earnings management in order to meet the unrealistic performance expectations incorporated in the stock prices. They expected that a sub-sample of firms with upward managed accruals will be more heavily populated with overvalued firms and the subsequent negative stock performance of such companies is a mere overvaluation reversal. Using a sample of US companies with data starting from 1963 to 2004, they formulate a number of testable predictions that allow them to distinguish between the agency theory of overvalued equity and the traditional investor fixation hypothesis as the driving force behind the accrual anomaly. Consistent with the agency theory of overvalued equity, they found an asymmetry in the relation between accruals and returns, accruals and insider-trading patterns, and accruals and corporate investment financing decisions. They found that companies in the highest income-increasing accrual decile experience an economically large abnormal price run-up prior to the accrual management year, which is followed by stock underperformance in the subsequent years.

Chi and Gupta (2007) contributed to the same stream of literature empirically examining the significance of the agency costs of overvalued equity by focusing on earnings management. Their study is organised around the research question whether equity overvaluation leads to more income-increasing earnings management. Taking into consideration a sample of U.S. firm year observations from 1964 to 2003, earnings management measurement based on a modified version of the Jones (1991) model and, a measure of overvaluation as suggested by Rhodes-Kropf et al (RKRV, 2005), they found that overvaluation is significantly related to subsequent income-increasing

earnings management (i.e. high discretionary accruals). The effect is large economically: a one-standard deviation increases in total valuation error a fifteen-per cent standard deviation increases in discretionary accruals. Consistent with the accruals anomaly literature, they found that higher discretionary accruals are associated with lower future abnormal stock return. Moreover, they demonstrated that this association becomes stronger as prior overvaluation intensifies. In fact, among the most overvalued firms, those with the higher discretionary accruals underperform those with the low discretionary accruals during the following year by 11,88% after adjusting for the Fama-French (1993) risk factors. They also found that higher discretionary accruals are associated with lower future operating performance, and also this association becomes stronger as prior overvaluation intensifies. Among the most overvalued-firms, those with high discretionary accruals underperform those with low discretionary accruals during the following year by 12,87% as measured by industry-adjusted unmanaged EBITDA-to-asset ratio.

The relation found by Chi and Gupta (2007) on the association between discretionary and lower future abnormal stock returns as well as between accruals and lower future operating performance, are robust once controlling for a host of firm attributes, governance and managerial incentive attributes.

As far as the theoretical contribution is concerned, previous results should be considered as a complement of Efendi et al.'s (2007). Efendi et al. provide evidence that CEO holdings in-the-money stock options engage significantly more in financial restatements. In particular, they investigated the incentives that led the rush of restated financial statements at the end of the 1990s market bubble, providing evidence on CEO opportunism during the 1990s in an effort to support overvalued stock price. Using a sample of 350 US companies that announced restatements between January 1, 2001 and June 30, 2002, they found that the likelihood of a misstated financial statement increases greatly when the CEO has very sizable holdings in – the-money stock options. They found also that misstatement are also more likely for firms that are constrained by the interest-coverage debt covenant, that raise new debt or equity capital, or that have a CEO who serves as a board chair. In summary, their results, based on a US sample, indicate that agency costs increased as substantially overvalued equity caused managers to take actions to support the stock price.

Always related to the agency theory of overvalued equity and earnings management issue, Bardertscher (2010) examines how the degree and duration of overvaluation

affect management's choice of alternative earnings management mechanisms. Specifically, he examines the relation between overvalued equity and management's use of alternative within-GAAP earnings management mechanisms and subsequent non-GAAP earnings management. He started from the Jensen's prediction that manager are likely to engage in several types of earnings management practices in order to meet unrealistic performance expectations incorporate in the overvalued stock price. Badertscher (2010) termed these alternative earnings management choices Real Transaction Management (RTM), within-GAAP Accruals Management (AM), and non-GAAP earnings management. RTM refers to the purposeful altering of reported earnings in a particular direction by changing the timing or structuring of an operating, investing, or financing decision. Accruals management refers to the purposeful altering of accruals in a particular direction, either within-GAAP (i.e., AM) or outside the boundaries of the GAAP (i.e., Non GAAP), achieved when managers adjust revenue or expense accrual to alter financial reports. In order to estimate overvalued equity, he employed the residual income model of Edwards and Bell (1961) and Ohlson (1961). Specifically, he predicts that the longer a firm is overvalued the more likely the firm will engage in within-GAAP earnings management. If at some point the overvalued firm is no longer able to engage in within-GAAP earnings management, he predicts that they will likely segue to non-GAAP earnings management in order to report the high performance demanded by the market year after year. Using a sample of US firms from 1994 to 2008, he pointed out that the longer a firm is overvalued the greater the amount of total within-GAAP earnings management exhibited by the firm. More interestingly, he found that overvalued firms initially engage in AM but at some point run out of AM choices and resort to the RTM. In other words, the results suggest that to sustain overvaluation, firm transaction from one type of earnings management to another rather than using only one type. He also found evidence that firms with sustained overvaluation are more likely to be restricted in their ability to engage in further AM, leading them to engage in more drastic and costly form of RTM.

Once within-GAAP earnings management options have been exhausted, his findings indicate that some firms resort to the most egregious form of earnings management, non-GAAP earnings management.

In summary, this study investigates how the degree and duration of firm overvaluation affect management's choice of alternative earnings management mechanism and, it sheds light on how one type of earnings management segues into another in order to

sustain overvaluation, showing that the longer a firm is overvalued, the more likely the firm is to engage in a non-GAAP earnings management.

Marciukaityte and Varma (2007) estimate that firms that made earnings-decreasing restatements over the period 1990 to 2001 lost $72 billion around restatement announcements. Moreover, they found that forty-seven large-loss firms restating their earnings in the 1998 to 2001 period account from $66 billion of these losses. They empirically demonstrated that despite very good stock performance and low book-to-market values before earnings misstatement, large-loss firms are associated with mean abnormal returns of -39% during the announcement period, and underperform matched firms by 44% during the first post-restatement year. Using a sample of 526 US companies that restated their earnings over the period 1990 to 2001, they empirically validated the role of agency costs of overvalued equity in earnings manipulation. The authors explained that their decision to use earnings restatements to validate the agency costs of overvalued equity hypothesis proposed by Jensen, is due to the assumption that restatements provide a more suitable sample to test the relationship with earnings management. Marciukaityte and Varma (2007) deem, and is a widespread belief also in the academic debate, that earnings restatement is the best way to measure earnings management because, by definition, is an admission by management that earnings were improperly reported.

A more recent paper by Houmes and Skantz (2010), using a sample that include all the firms in Compustat annual database from 1990 to 2005, provides evidence consistent with the overvaluation hypothesis. Their evidence suggests that high firm valuation and CEO equity at risk increase the likelihood of earnings management, and that the two incentives may complement one another. One implication for directors and audit committees that come from the Houmes et al. is that they should be particularly conscious of potential earnings manipulation when their firms has extremely high valuation multiples and when the CEO has a lot of equity at risk (Houmes and Skantz, 2010).

The previous section has provided a review of the researches that empirically demonstrated the relationship between shares mispricing and earnings management (measured using several proxies), validating the agency costs of overvalued equity proposed by Jensen in 2005. As we already said, one weakness of the researches presented in this section is that they are all developed using US companies, not providing evidence from other institutional contests. Our aim is to provide evidence that

validate the Jensen's hypothesis in other institutional contests, in particular, in insider system economy.

HYPOTHESIS DEVELOPMENT

As we said in the literature review, there is a wide field of empirical studies that figure out the relationship between overvalued equity and earnings management. Lakonishock et al. (1994) find that high market-to-book ratio, *"glamour stocks",* produces lower raw and size-adjusted returns than lower market-to-book firms. Anderson and Brooks (2006) show that P/E anomaly may be understated. They found a typical 6% differences in year-ahead returns between value and glamour firms based on the most recent P/E and, then, they show that the return differences double when using the prior eight year average of earnings and price to estimate P/E (price-to earnings ratio).

Previous studies, based on the US samples, provide evidence that firms with high abnormal returns underperform in the future periods. De Bondt and Thaler (1984) show that firms with prior three and five years high abnormal returns produce negative abnormal returns during the subsequent three and five years periods.

There are several evidence that, ex post, certain highly valued firms subsequently underperform the market does not suggest that managers accept the decline in share price as inevitable. To the contrary, managers of highly valued firms have considerable incentive to avoid reporting disappointment earnings and perpetuate the valuations, engaging in earnings management.

In order to validate the Jensen's predictions of the agency cost of overvalued equity and managers' incentive to perpetuate overvaluation engaging in earnings management, we examine the relationship between total accruals (used as proxy for earnings management) and market-to-book (used as proxy for firm's market valuation) using the change in total accruals from year t-1 to year t and the change in firm's market valuation from year t-1 to year t. The reasons behind this choice will be explained in section V.

To be more precise, accruals are measured relative to firms industry and represent the change in net operating assets that would be absent without discretionary earnings management. Thus, a firm with positive total accruals in t-1 and a positive change in total accruals in year t is increasing discretionary earnings by an increasing amount (income-increasing earnings management). Firm with negative total accruals in t-1 and

negative change in total accruals in year t is decreasing discretionary earnings by decreasing amount (income-decreasing earnings management) (Houmes and Skantz, 20101).

Based on the previous theoretical framework (reported in section II), in order to test the managers' incentives to perpetuate overvaluation engaging in earnings management we propose the following hypothesis:

> *H1: ceteris paribus, an increasing in firm's market valuation is positively correlated to an increasing in total accruals.*

As said, to prolong the overvaluation, a manager can resort to overinvesting through acquisition or expansions, commitment frauds or managing earnings. Once tested the relation between the firm's market valuation and the use of total accruals (as proxy for earnings management), we go more in depth empirically analysing the direction of the accounting manipulation. Based on the previous theoretical framework, we expect that an increasing in firm's market valuation (overvaluation) induces managers to engage in income-increasing earnings management. That phenomenon, based on the empirical evidences obtained from the US contest, can be clearly attributed to the agency conflicts outlined by Jensen in 2005.

In fact, when a listed company is overvalued, according to the agency costs of overvalued equity presented by Jensen (2005), managers may have two choices: one is to report the profit lower than expected based on actual performance and the other is to overstate the profit of the company to temporarily satisfy market expectation. The research based on data of 42 years from 1963 to 2004 of listed companies in the USA conducted by Kothari et al. (2006) has shown that the accrual accounting and discretionary accruals in the next year of overvalued listed companies are higher than those undervalued listed companies. Moreover, Chi and Gupta (2007) provide evidence that overvaluation is significantly related to subsequent income-increasing earnings management. The effect is very strong: one-standard deviation increases in total valuation error a fifteen-per cent increase in discretionary accruals.

So, in order to analyse the manager's incentive to perpetuate the increasing in firm's market valuation, we expect that it will be a positive association between increasing in firm's market valuation and income-increasing earnings management (measured by the

positive change from year t-1 to year t in total accruals). We propose the following hypothesis:

> *H_{2a}: ceteris paribus, income-increasing earnings management is positively correlated to an increasing in firm's market valuation.*

The previous hypothesis is also coherent with the findings of Badertscher (2010). As said before, he predicts that the longer a firm is overvalued the more likely the firm will engage in within-GAAP earnings management. If at some point the overvalued firms is no longer able to engage in within-GAAP earnings management, he predicts that managers will likely segue to non-GAAP earnings management in order to report the high performance demanded by the market year after year and, thus, perpetuating this *"game"* year after year they engage in accounting frauds (cases not considered in our research). Moreover, he found that overvalued firms initially engage in within-GAAP accruals management but a some point run out of accruals management choices and resort to the real transaction. In other words, he found evidence that firms with sustained overvaluation are more likely to be restricted in their ability to engage in further accruals management, leading them to engage in more costly form of real transaction.

Based on the Badertscher (2010) findings on the alternative earnings management mechanism, we also think that managers of overvalued companies might change accounting manipulation from income-increasing to income-decreasing earnings management in order to avoid extreme forms of upward earnings management.

Our intuition is that in case of decreasing in firm's market valuation manager's of previous years overvalued (increasing in firm's market valuation) companies may engage in income-decreasing earnings management in order to correct previous upward accrual accounting manipulation, avoiding to engage in the extreme forms of earnings management (non-GAAP earnings management) that induce accounting frauds.

Thus, we propose the following hypothesis:

> *H2b: ceteris paribus, income-decreasing earnings management is positively correlated to a decreasing in firm's market valuation.*

As we will see later in the results section, we examine the robustness of our predictions through several sensitivities' analysis. In particular, we test the previous hypotheses also considering the change in discretionary accruals (as proxy for earnings management) rather than the changes in total accruals. As we will explain later, this test allow us to clean our results from the potential effect of the sales growth that might has impact on the level of total accruals without any relation with the manager's discretional accruals accounting choices.

RESULTS

Primary test – Changes in Total Accruals as a Dependent Variable

All regression models are fixed effect models controlling for the industry-year effect. Fixed effect model relaxes the assumption that the regression function is constant over time and space (Baum, 2006).

In order to test the relation between firm's market valuation and earnings management we use different model specifications.

We found that the *change_M/B* coefficient is positive and significant in all specifications, suggesting a positive relation between the increasing (decreasing) firm's market valuation from year t-1 to year t and increasing (decreasing) in earnings management (measured through total accruals), which is consistent with our expectation that managers handling overvalued (undervalued) companies have strong incentive to sustain overvaluation (undervaluation). In order to do that, and to avoid earnings surprise to the market, they manipulate accounting figures increasing (decreasing) the use of accruals accounting.

Table 4 provides regression results for H1, H2a and H2b considering a period under observation from 1997 to 2010.

Through Model 1 we tested the relationship between changes in total accruals from year t-1 to year t and change in market-to-book from year t-1 to year t. The coefficient of the variable *change_M/B* is positive and significant (two-tailed p-value <0.01) supporting the hypothesis that the increasing in firm's market valuation is associated to an increasing in total accruals.

This result is consistent to Jensen (2005). Following Jensen 2005, when a listed company is overvalued, managers may have two choices: one is to report the profit

lower than expected based on actual performance and, the other is to overstate the profit of the company to temporarily satisfy market expectation. Through Model 1 we support the prediction that when managers see an increasing in the firm's market value of the company from year t-1 to year t they have the incentive to perpetuate the positive market valuation engaging in accounting manipulation.

This result is also coherent with the empirical evidence on the earnings momentum provide by Myers at al. (2006). They provide evidence on firms that report long "string of consecutive increases in earnings per share (EPS)". They show that these firms consistently enjoy abnormally strong stock market performance over the period during which they report earnings strings, and that this performance is stronger for firms which report consistent increases in annual EPS, and the negative market reaction associated with the end of this string is more adverse for firms that have reported longer strings. They argue that these regularities provide managers with strong incentive to maintain and extend the earnings strings, and in extreme cases, this may lead to accounting frauds. They also pointed out that this phenomenon is likely to be attributable to earnings management, and provide evidence that managers of these firms exercise their financial reporting discretion to sustain and extend their firms' earnings strings.

Through Model 1 we provide quite similar evidence. In fact, the positive and significant relation between change in total accruals and change in market-to-book ratio means that managers with positive market valuation for at least two subsequent years use total accruals to sustain their firm's valuation.

The coefficients of the control variables have the expected sign and are consistent with findings in previous studies. As indicated by the negative and significant coefficient on *laggedROA* (two-tailed p-value <0.01) companies with poor performance in the previous year engage in earnings management practices in the subsequent year to improve future results. Consistent with the previous empirical studies we regress ROA at year t-1 with the change in total accruals from t-1 to t. The negative sign of the coefficient shows that firms unable to meet last year's earnings level may have incentive to use accruals to avoid earnings disappointments (Kadan and Yang (2005). At the same way, consistent with Astami and Tower (2006) our result confirms a negative and statistically significant relation between financial leverage and earnings management (two-tailed p-value <0.01). Following Watts (2003a and 2003b) this result is consistent with the prediction that firm with more leverage will be bound

contractually to apply accounting in more conservative way. So, from our result it seems that firms with high leverage exhibit more conservative accounting.

Our tests are design to document evidence of both income-increasing and income-decreasing earnings management.

As already explained in the model definition section, through Model 2 and Model 3 we split the sample between positive and negative change in total accruals. Through this design we have the opportunity to test the direction of earning manipulation and its relation with the market-to- book ratio.

In particular, through hypothesis 2a and 2b we want to test the statistical significant relation between increasing firm's market valuation (as a proxy for stock market overvaluation) and income-increasing earnings management (measured through positive change in total accruals) and, decreasing in firm's market valuation (as a proxy for stock market undervaluation) and income-decreasing earnings management.

Model 2 supports H2a. In Model 2 we change the dependent variable and, we run a regression considering Panel B, representing income-increasing earnings management portfolio (firm-year observations with positive change in total accruals, *+change_TA*). The coefficient of the variables *change_M/B* is still positive and significant (two-tailed p-value<0.01) supporting the hypothesis that an increasing in firm's market value (overvaluation) induces managers to engage in income-increasing earnings management to sustain the overvaluation. Our results are coherent with previous empirical studies. First of all, they are coherent with Sloan 1996 research in accounting accruals. He investigates the market price of total accruals and he finds that the market fails to appreciate the lower persistence of the accrual component of earnings and, consequently, overprices total accruals. Using quarterly data, Collins and Hirbar (2000) also find that the market overprices total accruals.

Moreover, this result is coherent also with Chi and Gupta (2007) that, using a sample composed by US listed companies, provide evidence that overvaluation is significantly related to subsequent income-increasing earnings management.

Last but not least, the result is again coherent with the Jensen 2005 prediction of "the agency costs of the overvalued equity". If firms report market premium (positive market valuation for consequently years), their manager will be in a difficult situation once they realize that the market premium is not sustainable and, thus, they engage in increasingly aggressive accounting to match unrealistic expectations about their firm's valuation.

With reference to the control variables, the negative and significant coefficient of *laggedROA* confirms the prediction that companies with poor performance in the previous year engage in earnings management the following year, in particular in income-increasing earnings management to reach better results. In Model 2, instead, we obtain not significant result for the financial leverage (LEV) variable.

Model 3 supports H2b. In Model 3 we change again the dependent variable and, we run a regression considering Panel C, representing income-decreasing earnings management portfolio (firm-year observations with negative change in total accruals, -*change_TA*).
The coefficient of the variable *change_M/B* is positive and significant (two-tailed p-value<0.01) meaning that a decreasing in firm's market valuation (decreasing of the market-to-book value from t-1 to t) is related to income-decreasing earnings management (negative change in total accruals fro t-1 to t). The result provides evidence that in case of firm's undervaluation managers have incentive to sustain this decreasing engaging in income-decreasing earnings management.
In our opinion, this result could be related to the Badertscher (2010) findings on the overvaluation and choice of alternative earnings management mechanism. As said before he demonstrates the duration of firm overvaluation is an important determinant of management' s choice of alternative earnings management mechanism.
Our empirical analysis suggests that in case of decreasing in firm's market valuation managers of previous year overvalued (increasing in firm's market valuation) companies engage in income-decreasing earnings management in order to correct previous upward accrual accounting manipulation, avoiding to engage in the extreme case of earnings management (non-GAAP earnings management) that induce accounting frauds.
This result seems to be consistent to Lev (2012) predictions about mispricing and earnings restatement. Lev (2012) in his last book ranked companies within a large number of industries by their mean three-year Price to Earnings ratio (P/E) – an indicator of share overvaluation - in the early 2000s. Then, he classified the companies in each industry to five-equal size groups of ascending P/E size. Finally, he recorded for each P/E group the frequency of subsequent earnings restatement - an indicator of earnings manipulation or other accounting improprieties. From his analysis it is evident that the frequency of restatement increase monotonically with share valuation. So, the

higher is the P/E groups the higher is the probability of earnings restatement (as a proxy of earnings manipulation). His result shows, at the same time, that the lower P/E group – likely undervalued share – also has a high frequency of earnings restatement. He argues "*apparently, in their zeal to prop up lagging share prices, some managers of undervalued companies help themselves to accounting trickery"* (Lev, 2012).

Our result seem to be quite similar, showing that decreasing in firm's market valuation is also associate with earning management, in particular, with income-decreasing earnings management demonstrating that managers of undervalue companies may sustain the undervaluation to help themselves through accounting manipulation to correct accounting trickery.

Attachment 2 provides the list of the firm-year observations that compose Panel B and Panel C.

To control for the controversial effects of the firms' size we use the natural log of firm' s fiscal end-year assets. For all models presented above the variable is not statistically significant.

Table 4 - Primary Tests regressions' results °

year under observation from 1997 to 2010

	Model 1	*Model 2*	*Model 3*
dependent variables	*change_TA*	*+change_TA*	*-change_TA*
Incercept	.08585* (.04406)	.11942*** (.04282)	-.06454* (.03726)
change_M/B	.00995*** (.00218)	.00683*** (.00222)	.00562*** (.00187)
lnAssets	-.00218 (.00324)	-.00397 (.00315)	.00245 (.00271)
laggedROA	-.52008*** (.05286)	-.25243*** (.05030)	-.11013** (.05425)
LEV	-.08243*** (.02581)	-.00540 (.02653)	-.02544** (.02160)
F	30.96***	9.07***	4.39***
R2	.053	.13	.047
N	1582	766	816
Industry-year fixed effect	yes	yes	yes

Notes:
Two-tailed p-value denoted by asteriks are: ***less than 1%; *+ less than 5%; * less than 10%; all other variables are insignificant with p-value grather than 10%.

This table repots the results of our test of H1, H2a and H2b.
For H1 we use Model 1 and we run the following regression:

$$change\_TA_{ijt} = \beta_0 + \beta_1 change\_M/B_{ijt} + \beta_2 \ln Assets_{ijt} + \beta_3 laggedROA_{ijt-1} + \beta_4 LEV_{ijt} + \varepsilon_{ijt}$$

For H2a we use Model 2 and we run the following regression:

$$+change\_TA_{ijt} = \beta_0 + \beta_1 change\_M/B_{ijt} + \beta_2 \ln Assets_{ijt} + \beta_3 laggedROA_{ijt-1} + \beta_4 LEV_{ijt} + \varepsilon_{ijt}$$

For H2b we use Model 3 and we run the following regression:

$$-change\_TA_{ijt} = \beta_0 + \beta_1 change\_M/B_{ijt} + \beta_2 \ln Assets_{ijt} + \beta_3 laggedROA_{ijt-1} + \beta_4 LEV_{ijt} + \varepsilon_{ijt}$$

° all the variables are winsorized at the 2% level

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

This study explores the link between firm's market value and earnings management incentives. In particular, we provide evidence consistent with the overvaluation hypothesis that predicts how managers of highly valued firms have strong incentive to manage earnings upwards. We demonstrate that an increasing in firm's market value induce managers to engage in income-increasing earnings management. When managers see the firm's market value going up they have the incentive to manipulate earnings upwards to sustain the increasing in firm's market value.

This result shows that the agency costs of overvalued companies proposed by Jensen (2005) also exist in Italy and, it is consistent with the existing literature in this field (Collins and Hirbar, 2000; Myers et al., 2006; Chi and Gupta, 2007, Badrtscher, 2010).
At the same time, our results show that a decreasing in firm's market value is correlated to income-decreasing earnings management. This could mean that when managers see the firm' s value going down they have incentive to manipulate earnings downward. In our opinion, this result is consistent with Badertscher's finding (2010) about the degree and duration of overvaluation and alternative methods of managing earnings. In case of decreasing in firm's market value managers of previous year overvalued companies engage in income-decreasing earnings management probably to correct (changing accruals accounting practice) previous upward accrual accounting manipulation, avoiding extreme forms of earnings management that are likely to induce accounting frauds.
In our opinion, the overall results also confirm the Houmes and Skantz (2010) suggestion that market prices drive accruals in contrast to the typical model where accruals drive the market price.
Moreover, we show that the primary test is robust to several sensitivities' analysis. In particular, we verify the robustness of our results to different earnings management proxies; using discretionary accruals as estimated by Jones model (1991) rather than total accruals.
As pointed out by Marciukaityte and Varma (2007) and Lev (2012) and, as is even more widespread belief also in the academic debate, earnings restatement is the best way to measure earnings management because, by definition, is an admission by management that earnings were improperly reported. Even if we used different methods provided by the literature to measure earnings management phenomenon, they still have significant weaknesses. McNichols (2000) in his study about the "Research design issues in earnings management studies", suggests that the aggregate accruals models that do not consider long-term earnings growth are potentially misspecified and can result in misleading inferences about earnings management behaviour (see: McNichols (2000) for the empirical issues about the earnings management proxies). We believe that this shortcoming is embedded into the methodology employed. Maybe alternative statistical analysis considering earnings restatement cases rather than accruals methodology could provide more insight on the topic. Unfortunately, we can not apply this methodology for the Italian contest, because earnings restatements are not mandatory for European

countries and, despite our attempt we found only 20 restatement' cases in Italy. So, the lack of data makes statistical inferences impossible.

We also have the ambition to extend the empirical analysis to other European countries in order to verify if the results could be generalized to others insider system (such as: Germany, France, Spain, etc…etc…).

Despite the weakness related to the methodological approach, we think that the results of this research are relevant to understand managers' behaviours in playing earnings management *"game"* and, in which extant it is important to improve efficiency of securities markets in order to protect investor's interest.

REFERENCES

Amihud, Y.,Kamin, J.Y., and Ronen, J., (1983), "Managerialism", "Ownerism" ans "Risk", *Journal of Banking and Finance*, 189-196.

Anderson, E., Ghysels, E., and Juergens, J., (2005), Do heterogeneous beliefs matter for asset pricing? *Review of Financial Studies*, 18, 875-924.

Anderson, K., and Brooks, C., (2006), The long-term price earnings ratio, *Journal of Business Finance & Accounting*, 33, 1063-86.

Ang, J.S., Cheng, Y., (2006), Direct evidence on the market-driven acquisition theory, *Journal of Finance Research*, 29, 199-216.

Angrist, J.D., Pischke, J.S. (2009), Mostly harmless econometrics. An Empiricist's Comparison, Princeton University Press.

Antle, R., and Demski, J., (1989), Revenue recognition, *Contemporay Accounting Research*, 5, 2, 503-527.

Associazione Disiano Preite (1997), Rapporto sulla società aperta, Bologna, il Mulino.

Astami, E.W., and Tower, G., (2006), Accounting-policy choice and firm characteristics in the Asia Pacific region: an international empirical test of costly accounting theory, *The International Journal of Accounting*, vol. 41, 1-21.

Badertscher, B., (2007), Overvaluation and the choice of alternative earnings management mechanisms, *Social Science Research Network*.

Baker, H.K. and Nofsinger, J.R. (2010), Behavioural Finance. Investors, Corporations, and Markets, Wiley and Sons, Inc.

Baker, M., and Wurgler, J., (2006), Investor sentiment and the cross-section of stock returns, *Journal of Finance*, 61:1645-1680.

Baker, M., and Wurgler, J., (2007), *Investor sentiment in the stock market*, Journal of Economic Perspective, 21, 129-151.

Baker, T., Collins, D., and Reitenga, A. (2003), Stock option compensation and earnings management incentive*s, Journal of Accounting, Auditing and Finance*, 18(4), 557-582.

Ball, R., and Bartov, E., (1996), How naïve is the stock market' s use of earnings information?, *Journal of Accounting and Economics*, 11, 319-337.

Banz, R.W., (1981), The relationship between Return and Market Value of Common Stocks, *Journal of Financial Economics*, vol.9.

Barberis N., and Thaler, R., (2003), A survey of behavioural finance, Handbook of the Economics and Finance, Ed. Constantinides G.M, Harris M., Stulz, R.

Barclay, M., and Holderness, C., (1991), Negotiated block trades and corporate control, *The Journal of Finance*, 46, 861-878.

Barclay, M., and Holdrness, C., (1989), Private benefits of control of public corporation, *Journal of Financial and Economics*, 371-395.

Barton, J., and Simko, P., (2002), The balance sheet as an earnings management constraint, *The Accounting Review*, vol.77, 1-27.

Barton, J., and Waymire, G., (2004), Investor protection under unregulated financial reporting, *Journal of Accounting and Economics*, 38: 65-116.

Bartov, E., and Mohanram, P. (2004), Private information, earnings manipulations and executive stock-option exercises, *The Accounting Review*, 79, 889-920.

Bartov, E., Givoly, D., and Hayan, C., (2002), The rewards to meeting or beating earnings expectations, *Journal of Accounting and Economics*, 33, 173-204.

Basu, S. (1977), Investment Performance of Common Stocks in Relation to Their Price-Earnings Ratios. A Test of Market Efficient Hypothesis, *The Journal of Finance*, 32(3), 663.

Baum, C.F. (2006), An introduction to modern econometrics using STATA, StataPress.

Beneish, M., (1998), Discussion of "Are accruals during initial public offerings opportunistic?", *Review of Accounting Studies*, 3, (1-2), 209-221.

Beneish, M.D, and Vargus, M.E. (2002), Insider trading, earnings quality and accrual mispricing*, The Accounting Review*, 77 (4), 755-791.

Bens, D.A., Nagar V., Skinner, D.J., and Wong F.M.H. (2003), Employee stock option, EPS dilution and stock repurchases, *Journal of Accounting and Economics*, 36, 51-90.

Bergstresser, D., and Philippon, T., (2006), CEO incentives and earnings management, *Journal of Financial Economics*, 80, 511-529.

Bianchi, M., Bianco, L., Giacomelli, S., Pacces, A., (2005), Proprietà e controllo delle imprese in Italia, il Mulino, Bologna.

Burns, N., and Kedia, S., (2006), The impact of performance based compensation on misreporting, *Journal of Financial Economics*, 79, 35-67.

Burns, N., and Kedia, S., (2008), Executive option exercises and financial misreporting, *Journal of Banking and Finance*, 32 (5), 845-857.

Bushee, B., (1998), The influence of institutional investors on myopic R&D investment behaviour, *The Accounting Review*, 73,305-333.

Cameran, M., (2005), Audit fee and the large auditor premium in the Italian market, *International Journal of Auditing*, vol.9, pp 129-146.

Chan, L.K., Hamao, Y., and Lakonishok, J. (1991), Fundamental and Stock Returns in Japan, *The Journal of Finance*, vol.46, pp. 1739-1764.

Chan, L.K.C., and Lakonishok, J., (2004), Value and Growth Investing: Review and Update, *Financial Analyst Journal*, vol. 60, n.1, pp. 71-86.

Cheng, Q., and Warfield, T., (2005), Equity incentives and earnings management, *The Accounting Review*, vol. 80, 441-476.

Chi, J.D., Gupta, M., (2007), Overvaluation and earnings management, *Journal of Banking & Finance*, 33 (9), 1652-1663.

Choi, B.B., Lee, B.B., and Press, E.G., (2002), Differences in the value relevance of earnings in knowledge-based and traditional industries. SSRN.com/abstract_350320.

Christensen, P.O., and Demski, J.S., (2003), Accounting theory: an information content perspective, Mc-Graw Hill Irwin.

Chung, R., Firth, M., and Kim. J., (2002), Institutional monitoring and opportunistic earnings management, *Journal of Corporate Finance*, 8, 29-48.

Claessen, S., Djankov, S., Fan, J.P., and Lang, L.H., (2002), Disentangling the incentive and Entrenchement effects of a large shareholding, *Journal of Finance*, 57, 2741-2771.

Coffee J.R., (2005), A theory of corporate scandals: why the USA and Europe differ, *Oxford Review of Economic Policy*, 21, n.2, 198-211.

Collins, D. W., and Hribar, P. (2000), Earnings-based and accruals-based market anomalies: one effect or two?, *Journal of Accounting and Economics*, 29 (February), 101-123.

Cooper, M.J. Gulen, H., and Schill M.J., (2008), Asset growth and the cross-section of stock returns, *Journal of Finance* 63:4, 1609-1651.

Cormier, D.M., and Morard, B., (2000), The contractual and value relevance of reported earnings in a dividend-focused environment, *European Accounting Review*, 9 (3), 387-417.

DeAngelo, L.E., (1986), Accounting numbers as a market valuation substitutes: a study of management buyouts of public stockholders, *The Accounting Review*, 61,3, 400-420.

Dechow, P., (1994), Accounting earnings and cash flow as a measure of firm performance: the role of accounting accruals, *Journal of Accounting and Economics*, vol.18, 3-42.

Dechow, P., and Kothari, S.P., (1998), The relationship between earnings and cash flows, *Journal of Accounting and Economics*, 25 (20), 133-169.

Dechow, P.M, and Sloan, R., (1991), Executive incentives and the horizon problem: an empirical investigation, *Journal of Accounting and Economics*, 14, 1, 51-89.

Dechow, P.M., and Dichev, I.D., (2002), The quality of accruals and earnings: the role of accruals estimation errors, *The Accounting Review*, 77, 35-59.

Dechow, P.M., Richardson, S.A., and Tuna, I.A., (2003), Why are earnings kinky? An examination of the earnings management explanation, *Review of Accounting Studies*, 8, 355-384.

Dechow, P.M., Sloan, R., and Sweeney, A.P., (1995), Detecting earnings management, *The Accounting Review*, 70,2, 193-225.

DeFond, M., and Jiambalvo, J., (1994), Debt covenant violation and manipulation of accruals, *Journal of Accounting and Economics*, 23, 115-139.

DeFond, M., and Jiambalvo, J., (1994), Debt covenant violations and manipulation of accruals, *Journal of Accounting and Economics*, vol. 17, 145-176.

DeFond, M., and Jimbalvo, J., (1991), Incidence and Circumstances of accounting errors, *The Accounting Review*, 643-655.

DeFond, M., and Park, C., (2001), The reversal of abnormal accruals and the market valuation of earnings surprises, *The Accounting Review*, 76, (3), 375-404.

Denis, D. Denis, D. and Sarin, A., (1997), Ownership structure and top executive turnover, *Journal of Finance and Economics*, 65, 365-395.

Dhaliwal, D.S., Salamon, G.L., and Smith E.D. (1982), The effect of owner versus management control on the choice of accounting methods, *Journal of Accounting and Economics,* 41-53.

Di Donato, F., (2005), I diversi modelli di corporate governace. Un'analisi comparata, in Fiori G., and Tiscini R., Corporate governance, regolamentazione contabile e trasparenza dell'informativa aziendale, Milano, Franco Angeli.

Di Donato, F., (2005), Le frodi contabili. Analisi dei casi empirici, in Fiori G., and Tiscini R., Corporate governance, regolamentazione contabile e trasparenza dell'informativa aziendale, Milano, Franco Angeli.

Djankov, S., La Porta, R., Lopez de Silanes, F., Sheifer, A., (2005), The law and economics of self-dealing, NBER WP 11883.

Dong, M., Hirshleifer, D., Richardson, S., Teoh, S.H., (2006), Does investor misevaluation drive the takeover market?, *Journal of Finance*, 61, 725-762.

Dyck, A. and Zingales, L., (2004), *Private benefit of control: an international comparison*, *Journal of Finance*, 59(2), 537-600.

Dyck, A., and Zingales, L., (2002), Private benefits of control: an international comparison, Working Paper, National Bureau of Economic Research.

Eberhart, A., William, M., Siddique, A. (2004), An examination of long-term abnormal stock returns and operating performance following R&D increases, *Journal of Finance*, 54, 623-650.

El-Gazzar, S., (1998), pre-disclosure information and institutional ownership: a cross-sectional examination of market revaluation during earnings announcement periods, *The Accounting Review*, 73, 119-129.

Elton , E.J., Gruber, M.J., Brown, S.J., and Goetzmann, W.N. (2003), The Modern Portforlio Theory and Investment Analysis, John Wiley&Sons, Inc, New York.

Ettredge, M., Scholz, S., Smith, K., and Sun, L., (2007), The association between misstatements and bloated balance sheet, Working Paper, University of Kansas and Rutgers University.

Fama, E. (1965), The Behavior of Stock-Market Prices, *The Journal of Business*, vol. 38, n. 1, pp 34-105.

Fama, E., French, K.R., (1997), Industry costs of equity, *Journal of Financial Economics*, 43, 153-193.

Fama, E.F., and French, K., (1992), The cross-section of expected stock returns, *Journal of Finance*, 47:2, 427-465.

Fama, E.F., and French, K.R. (1996), Multifactor explanation of assets pricing anomalies, *Journal of Finance*, vol.51, 427-65.

Fama, E.F., and French, K.R., (1998), Value versus Growth: the international evidence, *The Journal of Finance*, vol 53., 1975-1999.

Fama, E.F., and French, K.R., (2006), The value premium and the CAP, The *Journal of Finance*, vol. 61, pp. 2163-2185.

Feltham, G.A., Indjejijian, R., and Nanda, D., (2006), Dynamics incentives and dual-purpose accounting, *Journal of Accounting and Economics*, 42, 3, 417-437.

Fields, T.D., Lys, T.Z., and Vincent L., (2001), Empirical research on accounting choice, *Journal of Accounting and Economics*, 31, 1-13, 255-307.

Fiori, G., (2003), Corporate governance e qualità dell'informazione esterna dell'impresa, Luiss University Press – Studi Economici Aziendali.

Francis, J., Schipper, K., and Vincent, L., (2003), The relevant and incremental explanatory power of alternative (to earnings) performance measure for returns, *Contemporary Accounting Research*, 21, 1, 121-164.

Grace, H., and Koh, P., (2005), Does the presence of institutional investors influence accruals management? Evidence from Australia, *Corporate Governance*, 13, 809-823.

Graham, J.R., Harvey, C.R. and Rajgopal, S. (2004), The economic implication of corporate financial reporting, Social Science Research Network.

Graham, J.R., Harvey, C.R., and Rajgopal, S., (2004), The economic implications of corporate financial reporting, Social Science Research Network.

Gu, F., Lev, B., (2010), Overpriced shares, III-Advised acquisitions, and goodwill impairment, Working paper, SUNY-Buffalo and New York University.

Haely, P.M., (1985), The effect of bonus schemes on accounting decision, *Journal of Accounting and Economics*, 85-107.

Haley, P.M., and Whalen, J.M., (1999), A review of earnings management literature and its implications for standard setting, *Accounting Horizon*, 13, 4, 365-383.

Healy, P.M., (1985), The effect of bonus schemes on accounting decisions, *Journal of Accounting and Economics*, 7, 1-3, 85-107.

Hertzel, M.G., Li, Z., (2007), Behavioral and rational explanations of stock price performance around SEOs: evidence from a decomposition of market-to-book ratios, Working paper, Arizona State University.

Hindley, B., (1970), Separation of ownership and control in the modern corporation, *The Journal of Law and Economics*, 185-222.

Hirshleifer, D., Hou, K., Teoh, S., and Zhang, Y., (2004), Do investors overvalued firms with bloated balance sheet? *Journal of Accounting and Economics*, vol. 38, 297-331.

Holdernesss, C., and Sheehan, D., (1988), The role of majority shareholders in publicly held corporation: an exploratory analysis, *Journal of Financial Economics*, 20, 317-346.

Houmes, E.R., and Skantz, T.R., (2010), Highly valued equity and discretionary accruals, *Journal of Business Finance & Accounting*, 37 (1), 60-92.

Hunt, H.G., (1985), Potential determinants of corporate inventory accounting decisions, *Journal of Accounting Research*, 448-467.

Hunt, H.G., (1993), The relationship between corporate ownership structure and earnings-based bonus plans, Unpublished working paper, University of Vermont.

Jensen, M., and Meclinng, W., (1976), The theory of the firm: managerial behaviour, agency costs and ownership structure, Journal of Finance and Economics, 3, 305-360.

Jensen, M.C. (2004), The agency costs of overvalued equity and the current state of corporate finance, *European Financial Management*, 10 (4), 549-565.

Jindra, J., (2000), Seasoned Equity Offerings, Overvaluation and Timings, Working Papar, Ohio State University.

Johnson, S., La Porta, R., Lopez-de-Sinales, F., and Shleifer, A.; (2000), Tunneling, *American Economic Review*, 90, 22.

Jonen, J., (1991), Earnings management during important refief investigations, *Journal of Accounting Research*, 29, 2, 193-228.

Joos, P., and Lang, M.,, (1994), The effect of accounting diversity: evidence from the European Union, *Journal of Accounting Research*, vol. 32, 3, 141-168.

Kadan, O., and Yang, J., (2005), Executive stock option and earnings management, Working Paper, Washington University, Saint Louis.

Kahaneman, D., and Tversky, A., (2000), Choices, Values, and Frames, Cambridge University Press.

Kamin, J.K., and Ronen, J., (1978), The smoothing of income numbers: some empirical evidence on systematic differences among management-controlled and owner-controlled firms, Accounting, *Organization and Society*, 141-157.

Kang, S., and Sivaramakrishnam, K., (1995), Issue in testing earnings management and an instrumental variable approach, *Journal of Accounting Research*, 33, 2, 353-367.

Kellogg, I., Kellogg, L., (1991), Fraud, window dressing, and negligence in financial statement, Shepard's/McGraw Hill, Colorado Spring.

Kinney, W., Burgstahler, D., Martin, R., (2002), Earnings surprise "materiality" as measured by stock returns, *Journal of Accounting Research*, 40, 1297-1329.

Koch, B., (1981), Income smoothing: an experiment, *The Accounting Review*, 3, 574-586.

Koh, P., (2003), On the association between institutional ownership and aggressive corporate earnings management in Australia, *The British Accounting Review*, 35.

Koh, P., (2007), Institutional investor type, earnings management and benchmark beaters, *Journal of Accounting and Public Policy*, 26, 267-299.

Kothari, Loutskina, E., Nikolaev, V. (2006), Agency theory of overvalued equity as an explanation for the accrual anomaly, Social Science Research Network.

Kothari, S.P., Leone, A.L., and Wasley, C.E., (2005), Performance matched discretionary accruals measures, *Journal of Accounting and Economics*, 39, 1, 163-197.

Kothari, S.P., Loutskina, E., Valeri, N., (2006), Agency theory of overvalued equity ad an explanation for the accrual anomaly, SSRN.

La Porta, R., Lakonishok, J., Shleifer, A., Vishny, W.R., (1997), Good news for value stocks: Further evidence on market efficiency, *Journal of Finance*, 52, 859-874.

La Porta, R., Lopez-de-Silanes , F., and Shleifer, A., (1999), Corporate ownership around the world, *Journal of Finance*, 54, 471-517.

La Porta, R., Lopez-de-Silanes, F., and Shleifer, A., and Vishny, R. (2002), Corporate ownership around the word, *Journal of Finance*, 54, 471-518.

La Porta, R., Lopez-de-Silanes, F., and Vishny, R., (1997), Legal determinants of external finance, *Journal of Finance*, vol.52, 3, 1131-1150.

Lakonishock, J., Shleifer, A., and Vishny, R., (1994), Contrarian investment extrapolation and risk, *Journal of Finance*, 49, 1541-78.

Lakonishok J., Shleifer A., and Vishny, R., (1994), Contrarian Investment, Extrapolation and Risk, *The Journal of Finance*, vol. 49, n. 5, pp. 1541-1578.

Lang, M., and Lundholm, R., (1993), Cross-sectional determinants of analyst's rating of corporate disclosures, *Journal of Accounting Research*, vol., 246-271.

Larcker, D.F., (1983), The association between performance plan adoption and corporate capital investment, *Journal of Accounting and Economics*, 3-30.

Lev, B., (1989), On the usefulness of earnings and earnings research: Lesson and direction from two decades of empirical research, *Journal of Accounting Research*, 27, 153-192.

Lev, B., (2012), Winning Investor Over: surprising truths about honesty, earnings guidance an other way to boost your stock price, Harvard Business Review Press.

Levich, R.M. (2001), International Financial Markets: Prices and Policies. Second Edition. McGrow-Hill/Irwin, New York.

Lewellen, W., Loderer, C., and Martin, K., (1987), Executive compensation and executive incentive problem, *Journal of Accounting and Economics*, 287-310.

Lin, L., (2009), Acquisition driven by stock overvaluation, Working Paper, Singapore Management University.

Marciukaityte, D., and Varma, R. (2008), Consequences of overvalued equity: evidence from earnings manipulation, *Journal of Corporate Finance*, vol. 14, 418-430.

Markarian, G., Pozza, L., Prencipe, A., (2008), Capitalization of R&D costs and earnings management: evidence from the Italian listed companies, *The International Journal of Accounting*, vol. 43, 246-267.

Matsunaga, S.R., and Park, C.W., (2001), The effect of missing a quarterly earnings benchmark on the CEO annual bonus*, The Accounting Review*, 76, 313-332.

McConnell, J., and Servaes, H., (1990), Additional evidence on equity ownership and corporate value, *Journal of Financial Economics*, 27, 595-612.

McEacherm, W., (1975), Managerial control and performance, Lexington Books.

McNichols, M., and Wilson, G.P., (1988), Evidence of earnings management from the provision for bad debts, *Journal of Accounting Research*, 26, pp. 1-31.

McNichols, M.F., (2000), Research design issue in earnings management studies, *Journal of Accounting and Public Policy*, 19, 313-345.

Meuwissen, R.F., Moers, F., Peek, E., and Vanstraelen, A., (2005), An evaluation of abnormal accruals measurement models in an international context, Working Paper, SSRN.

Mikkelson, W., and Ruback, R., (1985), An empirical analysis of the inter firm equity investment process, *Journal of Financial Economics*, 14, 523-554.

Moeller, S., Schlingeman, F., and Stulz, R., (2004), Firm size and the gains from acquisitions, *Journal of Financial Economics*, 73, 201-228.

Moller, S.B., Schlingemann, F.B., and Stulz, R.M., (2003), Wealth destruction on a massive scale? A study of acquiring-firm return in the recent merger wave, Working Paper, National Bureau of Economic Research.

Morck, R., Shleifer, A, and Vishny, E., (1988), Management ownership and market valuation: an empirical analysis, *Journal of Financial Economics*.

Mork, R., Scheifer, A., and Vishny, R.W., (1988), Management ownership and market valuation, Journal of Financial Economics, 20, 293-315.

Myers, J.N., Myers, L.A., and Omer, T.C., (2003), Exploring the term of the auditor-client relationship and the quality of earnings. A case of mandatory auditor rotation?, *The Accounting Review*, 78, 779-800.

Natarajan, R., (1996), Stewardship value of earnings component: additional evidence on the determinants of executive compensation, *The Accounting Review*, 71, 1-22.

Natarajan, R., (2004), Informativeness of performance measures in the presence of reporting discretion, *Journal of Accounting, Auditing and Finance*, 19, 61-83.

Pagano, M., and Roell, A. (1998), The choice of stock ownership structure: agency costs, monitoring and the decision to go public, *Quarterly Journal of Economics*, 113, 187-275.

Pagano, M., Panetta, F., and Zingales, L., (1998), Why do companies go public? An empirical analysis, *Journal of Finance*, vol.53, 27-64.

Park, M.S., and Park, T. (2004), Insider sales and earnings management, *Journal of Accounting and Public Policy*, 23(5), 381-411.

Payne, J.L. and Robb, S.W.G. (2000), Earnings management: the effect of ex ante earnings expectation, *Journal of Accounting, Auditing and Finance*, 15(4) 371-392.

Peasnell, K., Pope, P., and Young, S., (2000), Detecting earnings management using cross-sectional abnormal accruals model, *Accounting and Business Research*, 30, 313-326.

Porter, M., (1992), Capital choices: changing the way America invests in industry, *Journal of Applied Corporate Finance*, 5, 4-16.

Prencipe, A., Bar-Yosef, S., (2009), Corporate governance and earnings management in family-controlled companies, *Journal of Accounting, Auditing and Finance.*

Press, E., and Weintrop, J., (1990), Accounting-based constraints in public and private debt agreements: their association with leverage and impact on accounting choice, *Journal of Accounting Economics*, vol.12, 65-95.

Quagli, A., Avallone, F., and Ramassa, P., (2007), Stock option plans in Italy: does earnings management matter?, Social Science Research Network.

Ragan, S. (1998), Earnings management and the performance of seasoned equity offerings, *Journal of Financial Economics*, 50, 101-122.

Rajan, M.V., and Sarath, B., (1996), Limits to voluntary disclosure in efficient markets, *Journal of Accounting, Auditing and Finance*, 11, 3, 361-387.

Rhodes-Kropf, M., Robinson, D.T., Viswanathan, S., (2005), Valuation waves and merger activity: the empirical evidence, *Journal of Financial Economics*, 77, 561-603.

Ronen, J., (1979), The dual role of accounting: a financial economic perspective. Handbook of Financial Economics. North-Holland. 415-454.

Ronen, J., and Dadan, S., (1981), Smoothing income numbers: objectives, means, and implications. Reading, MA:Addison-Wesley.

Ronen,J., and Yaari, V., (2010), Earnings management. Emerging insights in theory, practices an research. Springer.

Salamon, G.L., and Smith, E.D., (1978), Corporate control and managerial misrepresentation of firm performance, The Bell Journal of Economics, 319-328.

Sanchez-Ballesta, J., and Garcia-Meca, B., (2007), Ownership structure, discretionary accruals and informativeness of earnings, Corporate Governance, 15, 677-691.

Schulze W.S., Lubatkin M.H., Dino R.N., and Buchholtz A.K., (2001), Agency relationship in family firms: theory and evidence, *Organizational Science*, 12(2), 99-116.

Scott, W.R., (2003), Financial accounting theory, Third Edition. Upper Saddle River, NJ:Prentice Hall.

Shiller, R.J., (2008), Fiancial Market . Open Yale University Course. New Haven. Connecticut.

Shleifer, A. (2000), Inefficient markets: an introduction to behavioural finance, Oxford, UK. Oxford University Press.

Shleifer, A.V., and vishny, R.W., (1997), A survey of corporate governance, *Journal of Finance*, 52, 737.

Skinner, D.J., Sloan, R.G., (2002), Earnings surprises, growth expectations, and stock returns – or don't let an earnings torpedo sink your portfolio, *Review of Accounting Studies*, 7(2-3), 289-312.

Sloan, R.G. (1996), Do stock price fully reflect information in accruals and cash flows about future earnings?, *Accounting Review*, 71:3, 289-315.

Sloan, R.G. (1996), Do stock price fully reflect information in accruals and cash flow about future earnings? *The Accounting Review*, 71 (October), 101-122.

Smith, E.D., (1976), The effect of separation of ownership from control on accounting policy decisions, *The Accounting Review*, 707-723.

Stulz, R., (1988), managerial control of voting rights: financing policies and the market for corporate control, *Journal of Financial Economics*, 20, 25-54.

Sunder , S., (2002), Management control, expectations, common knowledge, and culture, *Journal of Management and Accounting Research*, 14, 1, 173-187.

Sunder, S., (1997), Theory of accounting and control, Cincinnati, Southwest College Publishing.

Teoh, S., Wong, T., and Rao, G., (1998), Are accruals during initial public offerings opportunistic?, *Review of Accounting Studies*, 3, 175-208.

Thaler, R. (1993), Advances in Behavioural Finance. New York. Russell Sage Fundation.

Travols, N.G., (1987), Corporate takeover bids, method of payment, and bidding firms' stock returns, *Journal of Finance*, 42, 943-963.

Velury, U. and Jenkins, D., (2006), Institutional ownership and the quality of earnings, *Journal of Business Research*, 59, 1043-1051.

Warfield, T., Wild, J., and Wild, K., (1995), Managerial ownership, accounting choices, and informativeness of earnings, *Journal of Accounting and Economics*, 20, 61-91.

Watts, R., (2003a), Conservatism in accounting part I: explanation and implications, *Accounting Horizon*, vol., 17, 207-221.

Watts, R., (2003b), Conservatism in Accounting par II: evidence and research opportunities, *Accounting Horizons,* vol.17, 287-301.

Watts, R.L., and Zimmerman, J.L., (1978), Towards a positive theory of the determination of accounting standards, *The Accounting Review*, 65, 1, 131-156.

Watts, R.L., and Zimmerman, J.L., (1986), Positive Accounting Theory, Prentice-Hall.

Weisbach, M., (1988), Outside directors and CEO turnover, *Journal of Financial economics*, 20, 431-460.

Weisbach, M., (1988), Outside directors and CEO turnover, *Journal of Financial Economics*, 20, 431-460.

Williamson, O.E., (1976), A dynamic stochastic theory of managerial behaviour, in Issue in Theory, Practice and Public Policy (University of Pennsylvania Press).

Wooldridge, J.M., (2009), Introductory econometrics. A modern approach, South-Western CENGAGE Learning.

Wysocki, P., (2004), Discussion of ultimate ownership, income management, and legal and extra-legal institutions, *Journal of Accounting Research*, 42, 463-474.

Young, S., (1999), Systematic measurement error in the estimation of discretionary accruals: an evaluation of alternative modelling procedures, *Journal of Business Finance and Accounting*, 26, 833-862.

Zambon, S., and Saccon, C., (1993), Accouting change in Italy – Fresh start or Gattopardo's revolution?*, European Accounting Review,* vol. 2, pp 245-284.

Zhong, K., Donald, W., and Zheng, X., (2007), The effect of monitoring by outside block-holders on earnings management, *Quarterly Journal of Business & Economics*, 46, 38-60.

Zingales, L. (1994), The value of the voting right: a study of the Milan stock exchange experience, *Review of Financial Studies*, vol. 7, pp. 125-148.