The Value Relevance of Accounting Fraud and Discretionary Accruals

AMARA Ines

Accounting Department, Faculty of Economic and Management Sciences of Sfax, Tunisia
E-mail: amaraines@outlook.com

Abstract

The objective of this study is to analyze the value relevance of accounting fraud and discretionary accruals (positive and negative discretionary accruals) in French context during the period 2006-2010. Using the model of Ohlson (1995) which test the price and return model, we note that the price model provides a more significant result on the value relevance than the return model. In addition, fraud has a more significant and negative effect than discretionary accruals and even dilutes its existence in the price and return model. This finding proves the signals theory that bad information transferred quickly in the stock market.

Keywords: Value relevance, Fraud, Discretionary Accruals
JEL Classification: M48; G15, G38

1. Introduction

Value relevance is viewed as a key quality characteristic of accounting information used in making valuation decisions (Whelan, 2004). It is defined by Francis and Schipper (1999) as the ability of accounting numbers to summarize the information underlying the stock prices. Callao (2007) suggests that financial reporting is relevant when it influences the economic decisions of financial statements' users such as investors, employees, lenders and suppliers.

Given this importance, this topic has attracted the attention of studies on the relevance of accounting information are increasingly motivated to reason that investors and financial analysts use the information published in the financial statements as one of the major media of communication with shareholders and investors in the stock market (Song et al. 2010).

The pioneer works of "value relevance" are realized by Ball and Brown (1968) and Beaver (1968). We used these authors' findings concerning how the information accounting affected the financial market, thus to study the correlation between accounting earnings information and its correlation with stock price.

The association between accounting information and changes in market values are an indication that the information recorded influences the binding of the share price by investors on the market (Deegan and Unerman 2006). For example, accounting data, such as earnings per share, are called relevant value if it is significantly associated with the dependent variable, which can be expressed by the price, or return (Gjerde et al. 2008). Recently, Giosi et al. (2015) have defined the value relevance as the capacity of the financial statements to declare or capture the information that affect the value of the shares and are empirically tested by a statistical association between market values and book values. Value relevance is defined as the ability of financial statements information to capture or summarize information that affects share values (Francis and Schipper, 1999).

Our study focuses on this area of research and aims to complement previous studies by testing the impact of earnings manipulation (accounting fraud and discretionary accruals) on the value relevance in the French context and explain the effect of accounting data represented in the stock returns.

The remainder of this paper is organized as follows. Section 2 summarizes prior research and outlines the research hypotheses. Section 3 describes the applied methodology including the definition of variables and model specification, also the sample and data collection, Section 4 presents and discusses the achieved results. Section 5 concludes the paper and finally section 6 present the reference of our study.

2. Literature Review

Investors assign importance to the quality of the published information, given that it provides to minimize asymmetry information between the company and its shareholders, and it tends to reduce illegal acts, thus reduce the cost risk for investors (Collins et al. 1997). However, the main idea of research Holthausen and Watts (2001) is focused on the absence of a theory seeking to explain and predict accounting choices. In this regard, Dechow and Dichev (2002) find that changes in share prices on the stock market are affected by the earnings manipulation and accounting results. In addition, studies on the area of relevance affirm that stock prices are influenced by the information published in the financial statements.

2.1 Value Relevance and Accounting Fraud

The information presented in the financial statements must provide data that can be used as an indicator in the process of evaluating companies. Shareholders, as main users of financial statements, seek to ensure the company's ability to generate cash positions and the timing . Thus, the current results and the reputations of firms show an important role in forecasting earnings, stock prices, and profitability of the company.

Therefore, the fraudulent financial reporting plays a very powerful signal on the stock market. Investors are moving away from companies with legal problems. Thus,000000 the announcement of an investigation procedure generates a significant signal in the stock market, which questions the reputation and credibility of the company. The falling prices are recorded at the investigation and the announcement of fraud. These negative effects on prices are explained by the uncertainty attributed to investors and the loss of reputation of both the company and executives (Karpoff et al. 2008; Kang, 2008).

On the other hand, it is important to know that the most important means for company to improve their quality of information disclosed are the "discretionary accruals". This variable is considered as a signal for investors and shareholders to identify the accounting policy adopted by the company. Subramanyam (1996) put forward the idea that the result management allows to know the prospects for future earnings of the company, ensures the predictive value of the information, and as a result, has a significant effect on the relevance of value. However, Discretionary accruals are less observable and present less effect on the stock price than the fraudulent information that emits a highly visible signal concerning the information disclosed quality.

In this context, Djama (2013) affirms the relationship between stock prices and bad information disclosed in a French context which covers 69 detected sanctions by the AMF between 1995 and 2008. It found that prices fall up to 4,8% on average on the day of initiation of the investigation, the fact that investors have confidence on the legitimacy of the AMF control. For this reason, the share price and return are affected by the relevance and reliability of the accounting information quality published on the stock market (Djama, 2013). Hence our hypotheses are as follows:

H₁: Accounting fraud has a negative and significant effect on the value relevance model.

H_{1.1}: In the presence of accounting fraud, earnings manipulation via discretionary accruals does not affect the value relevance model.

2.2 Value Relevance and Discretionary Accruals

The effect of discretionary accruals on firm performance has been a topic of accounting research for several years. In addition, information asymmetry between manager and other stockholders let manager to use discretion over the recognition of accruals to signal their private information. Therefore Healy and Palepu (2001), Holthausen and Watts (2001) definit discretionary accruals as an opportunistic behavior of leaders to mislead the use of accounting information in order to appropriate personal gain or for business needs.This opportunism behavior, can misrepresent the information disclosedand consequently present an effect on the stock market.

Recently, Giosi et al. (2015) found in his research "how accruals can affect stock prices?" tested on the European Union countries that there is a positive and significant association between discretionary accruals and stock prices. Marquardt and Wiedman (2004) argue the major effect of discretionary accruals on the model price and return. In this context, El Shamy and Kaled (2005) examined the relationship between value and the relevance of management results on a sample of Kuwaiti companies. Using the model of association between the prices, profits, and book values, they showed that earnings and book values are positively and significantly related to stock prices.

According to Shan (2015) who seeks to determine if the earnings management reduces the level of value relevance using major listed companies in China, the data collected manually on 1012 firm-year observations of all companies listed on the Shanghai SSE 180 from 2001 to 2005, the main results support the hypothesis that major Chinese companies a relevance accounting information offer that helps investors to evaluate stock prices. This study highlights the negative relation between the value relevance and the discretionary accruals. This evidence can be used by policy makers and regulators to inform stakeholders in accounting the policy of earning management and, therefore, interpret its effect on the stock market. Marquardt and Wiedman, 2004; Barth et al., 2008; Lo and Wong, 2011; PAGLIETTI, 2009; Perotti and Wagenhofer, 2014; Paananen and Lin, 2009 show that earnings management can influence the financial reporting quality in the stock market.

In this framework, García.Meca and Sánchez.Ballesta (2009), Filip and Raffournier (2010) found that the type of discretionary accruals made by manager are interpreted by the users of financial information as a signal to know the accounting policy adopted by the company. In fact, discretionary accruals are less observable in the determination of the relevance of value than that of the fraudulent adjustments that emits a very visible and clear signal about the quality of information disclosed.

2.2.1 Value Relevance and Positive Discretionary Accruals

For most of the previous research, earnings management is considered as an opportunistic behavior officer for misleading uses of accounting information in order to maximize self-interests (Healy, 1985; Watts & Zimmerman, 1986).

Shaw (2003) affirms that companies published information of good news in the short term, using discretionary accruals, are more oriented towards the adoption of an aggressive accounting strategy. Consequently, the quality of information published by the company may be accompanied by high discretionary accruals. This artificial increase of the result will induce users of financial statements errors, insofar as they will for instance require an increase in dividends paid. This causes a depletion of company resources. For creditors, such a fictitious result can provide assurance on the continuity operation of the firms and its ability to honor its commitments.

Figure1. Conceptual framework
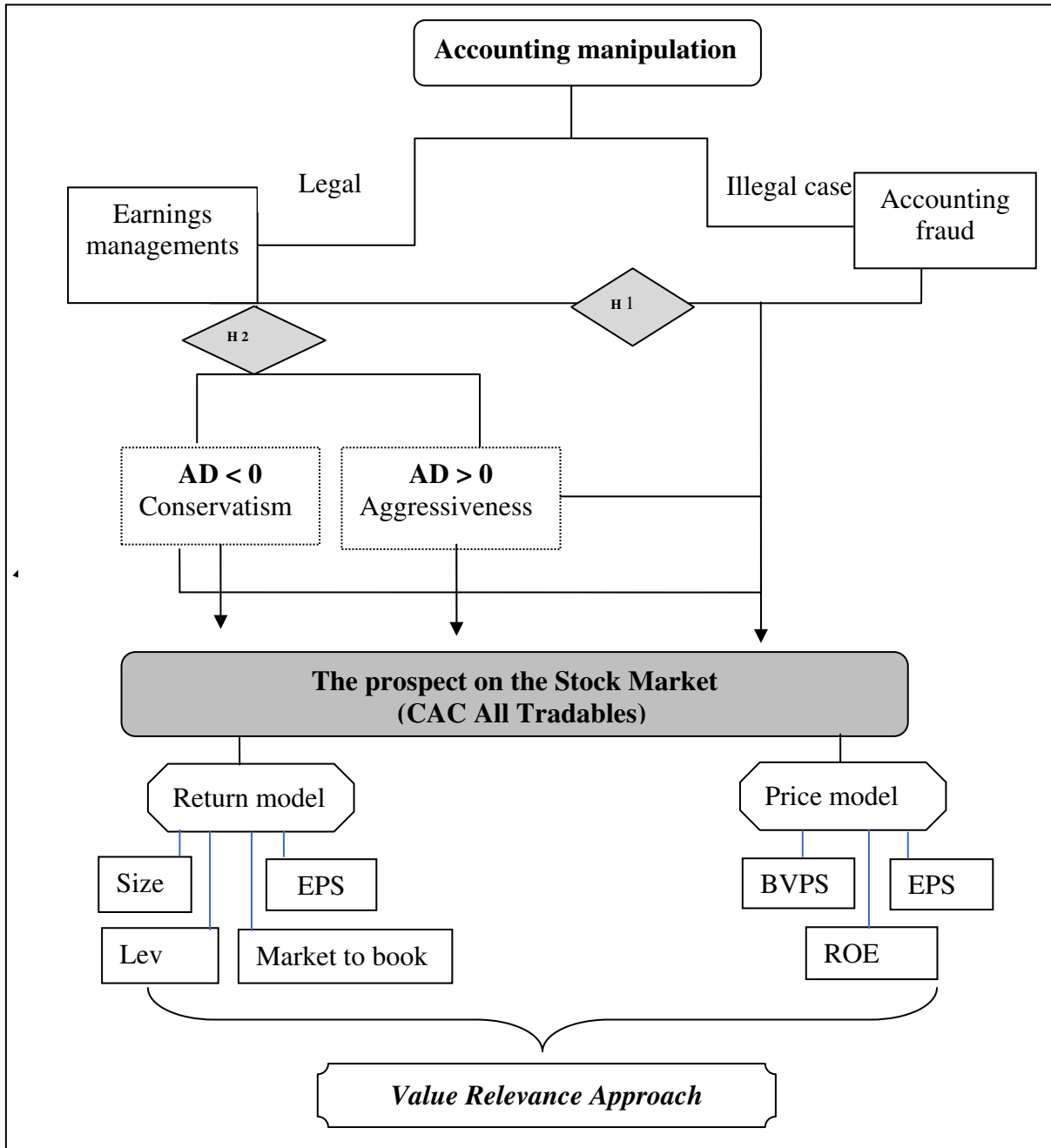
Indeed, in case of positive earnings management, a rational leader will be aware of reversible effect of earnings. Therefore, to address this situation, the leader engages in fraudulent acts that allow it to make up the financial statements to the profits of shareholders and investors (Perols and Lougee, 2011).

The price and return of share are influenced by discretionary accruals and the results published, thus the positive sign of discretionary accruals generates a significant effect for decision. However, the significance loses its importance in case of presence a fraudulent financial statement. Palmrose et al.(2004) and Karpoff et al. (2008) show the negative effect of share on the announcement of fraudulent information sanctioned by the SEC (Securities and Exchange Commission).

2.2.2 Value Relevance and Negative Discretionary Accruals

The conservatism asserts that leaders are facing take managerial behavior that lead them to defer gains and minimize cumulative earnings and net assets. Thus, discretionary accruals prove that leaders have a pessimistic forecasts and estimates about the future of the company that prevent accurate assessment against investors. The first work related to this concept explain the determinants of accounting conservatism (Basu 1997; Watts 2003; Ryan 2006). In addition, Francis et al. (2013) show that there is a positive relationship between conservatism and stock market returns after the financial crisis. His study affirm that conservatism is an effective of governance mechanism to reduce the risk of information and control the problem of agency costs. More recently, Ruch and Taylor (2014) examined the consequences and practices perform accounting conservatism.

Moreover, Wakil and Alam (2012) stated that the concept of conservatism is related to the quality of the information disclosed; they suggested that the bad news (sanctions announcement, loss, risk of investigation) is translated quickly on the stock market, then good news. Therefore, the accounting conservatism considered by many economic and financial changes, as the exercise of prudence in the assessment assets and the measurement of profit (Wakil and Alam, 2012).

Guay and Verrecchia (2007) affirm that the policy conservatism reduces the precautionary principle managerial opportunism and manipulation management. They indicated that the accounting conservatism encourages managers to adopt a system of full disclosure of information that, in turn, results in lowering the cost of equity. These results corroborate those found by previous studies (Chen et al 2007. Gao 2012; Fan and Zhang 2012), which proved that accounting conservatism practices improve the overall quality of information and increase the amount of information disclosed.

H2: Discretionary accruals have a significant effect on the price and return model.
H2.1: Aggressive Firms (Positive Discretionary accruals) present a significant effect on the price and return model.
H2.2: conservative firms (Negative Discretionary accruals) present no significant effect on the price and return model.

3. Research Methodology
3.1 The Model

Literature on the value relevance investigates a different specific model that describes the relationship between the amounts of accounting figures and market values, the majority of previous studies are based on theoretical research by Easton (1999) and Collins et al. (1997). Our study aims to investigate the association between the values of the stock market and financial information from the French system, by incorporating the case of fraudulent companies. So, we test the relevance of financial information with the moderator variable of discretionary accruals and accounting fraud that affects the relevance stock market value.

As Barth et al. (2001), the price and return models allow us to meet complimentarily problems. In fact, the price model is interested in events from this explanatory variable. While the model return seeks to determine the variable that effect on changes in share price in a specific period. Indeed, our method is based on the line of Kothari and Zimmerman (1995) claiming that the model is more robust when testing both prices and stock returns. Furthermore, we refer to the model used by Barth et al. (2001), therefore, most of the variables are expressed per share.

3.1.1 Stock prices model

The relevance of accounting information in determining the company's value is influenced by the perception of the reliability of this information to the market. Discretionary accruals are indicators of the earnings management, which can affect the outcome of relevance and reliability. We integrate into our model (1.1) this variable, as well as the variable "fraud" as a binary variable reflecting the companies detected by illegal actions.

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROE_{i,t} + \alpha_5 DA_i + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 1.1)

Where:
- P i, t : Share price,
- EPS i, t : Earnings per share = Net income / the number of shares outstanding
- BVPS i, t : Book value per share = shareholder's equity / the number of shares outstanding.
- ROE : Return On Equity =EPS/ BVPS,
- DA : Discretionary accruals
- FRAUD : Takes the value 1 if the firm is a victim of fraud in the financial statements; otherwise it is set to 0.

In order to improve our first model tests both the impact of the discretionary accruals and the accounting fraud, we have applied a refined analysis. So after testing the effect of different variables in the first model (Model.1), we eliminate this variable in the second model (Model 1.2) and replace it by an "interaction variable" between fraud and discretionary accruals to test only the effect of discretionary accruals in the presence of fraudulent companies and to review its explanatory power in model price.

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROA_{i,t} + \alpha_5 INTER \ (fraud * DA) + \varepsilon_i$$

(Model 1.2)

Furthermore, the sign of discretionary accruals traces the accounting policy of the company; therefore, we will examine the effect of the positive and negative discretionary accruals. In fact, the positive discretionary accruals reflect that manager opts for aggressive accounting to artificially inflate the results. The artificial of the result, will push shareholders to demand higher dividends resulting which leads to a depletion of resources company. Thus in the model (2.3) and (2.4), we test the effect of positive discretionary accruals and fraud on the price model and also, we test the interaction between fraud and aggressive accounting (positive discretionary accruals) on the price model.

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROE_{i,t} + \alpha_5 DA_{Positive} + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 2.3)

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROA_{i,t} + \alpha_5 INTER \ (fraud * DA_{Positive}) + \varepsilon_i$$

(Model 2.4)

The negative discretionary accruals indicate that company adopts a prudence policy; she interests to minimize these results and hide the real situation of business. The conservatism (negative discretionary accruals) is the trend to accountants which adopt a low degree of verification to know the bad information as being losses Basu (1997). Therefore, we divide our overall sample into positive and negative accruals to know the accounting policy adopted by the firms. We estimate two model, the model (3.5) to test the effect of negative discretionary accruals and accounting fraud on the price model and model (3.6) to test the interaction between accounting fraud and negative discretionary accruals on the price model.

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROE_{i,t} + \alpha_5 DA_{Negative} + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 3.5)

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_4 ROA_{i,t} + \alpha_5 INTER \ (fraud * DA_{Negative}) + \varepsilon_i$$

(Model 3.6)

3.1.2 Stock Return Model

We associate with the return model, the variables of accounting manipulations, legal (discretionary accruals), and illegal manipulation (fraud). Thus, it is more interesting to associate the control variables namely the size of the companies measured by the natural logarithm of total assets, and the company debt since it influences the return shares on the stock market.

We test the model (1.3) regression return in the presence of manipulative accounting variables (fraud and discretionary accruals), and in the model (1.4) we test the return of the stock in the presence of the variable "interaction" which associates both the binary variable fraud with discretionary accruals to better analyze our results.

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE + \alpha_5 DA + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 1.3)

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE + \alpha_5 INTER(fraud * DA) + \varepsilon_i$$

(Model 1.4)

Where,

Return share: $RENT_{i,t} = \dfrac{P_{it} - P_{i,t-1} + DIVIDENDES_{i,t}}{P_{i,t-1}}$

EPS i, t : Earnings per share = Net income / the number of shares outstanding MARKET TO BOOK = Book value / Market value

LEV   : Debt of firms = Financial debt / total assets

SIZE   : Size of firms = Ln total assets

DA   : Discretionary accruals,

FRAUD   : Takes the value 1 if the firm is a victim of financial statements fraud; otherwise it is set to 0.

It's necessary to distinguish between the positive sign of discretionary accruals (aggressive accounting) and the negative discretionary accruals (conservatism accounting). In fact, the sign of discretionary accruals presents the accounting policy of the firms, thus it has different effect on the return model. Therefore, on the model (2.3) we test the effect of positive discretionary accruals and accounting fraud on the return model.The model (2.4) test only the effect of the variable interaction betewen fraud and positive discretionary accruals. Concerning the model (3.3) and (3.4) we perform the same step to test the effect of negative discretionary accruals and accounting fraud on the return model.

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE + \alpha_5 DA_{positive} + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 2.3)

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE + \alpha_5 INTER(fraud * DA_{positive}) + \varepsilon_i$$

(Model 2.4)

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE + \alpha_5 DA_{negative} + \alpha_6 FRAUD_i + \varepsilon_i$$

(Model 3.3)

$$RENT_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 MARKETTOBOOK_{i,t} + \alpha_3 LEV + \alpha_4 SIZE +$$
$$\alpha_5 INTER(fraud * DA_{negative}) + \varepsilon_i$$

(Model 3.4)

3.2. Dependent Variable

3.2.1. Stock Price
The first works of Barth et al. (1998) assert that the value of the share is explained by two variables, the accounting value, and the benefice. Similarly, for Ohlson (1995) who showed that the stock price is a function of book value, equity capital and accounting results for the year. In this context, the book value is presented as an indicator of the present value of expected future earnings, while the value income is a proxy for abnormal gains. In his model, the company's value is dependent on the book value of abnormal earnings and other information. In this regard, the value of the firms is presented by the stock price, which is the measure of the market value.

$$PRIX_{it} = \alpha_0 + \alpha_1 BVPS_{it} + \alpha_3 EPS + \varepsilon_{it}$$

Where,
P i, t   : Share price,
EPS i, t   : Earnings per share,
BVPS i, t : Book value per share,

Earnings per share (EPS) are used as an indicator for the profitability of firms. It is intended to common shareholders; it allows them to know the distribution of future dividends and the value of their shareholdings and for listed firm's his representation is mandatory according to international standards (IFRS). Earnings per share are generally considered as the most important variable in determining the model price. In this regard, investors should be aware of the manipulation of profits which will affect the price, so it is important to not rely on a single financial measure, but use it in conjunction with the analysis of financial statements. This ratio is calculated by dividing the net income and the number of shares outstanding.

Book value present of equity held by the firm after covering all its liabilities and debts, so if the firm has a high value of the variable "Book value", in this context, investments are greater than its liabilities. As if the investments are less than its liabilities, the firm is in a situation of insolvency and the book value will be negative. It is important in this context, to distinguish between the book value of the firm which is the value of its net assets, determined by the accounting principles and standards, and the market value representing the assigned value by the financial market to the economic assets firms. This ratio is calculated by dividing shareholder's equity by the number of shares outstanding.

3.2.2. Stock Return
This ratio is used to distinguish firms with the policy of an important distribution profit is more important. So, if the ratio returns have a higher value, there are many investments, but the question is to clarify whether the firms have a better result, therefore it distributes shares to such shareholders or if the action is very low, which results in high return. (Kothari and Zimmerman 1995) ;

$$RENT_{i,t} = \frac{P_{it} - P_{i,t-1} + DIVIDENDES_{i,t}}{P_{i,t-1}}$$

Pit: Initial stock price;
Pit-1: Ending stock price;
Dividends.

3.3. Test Variables
3.3.1. Discretionary Accruals (AD)
Studies show that managers use discretionary accruals as a way to respond to asymmetric information and agency costs in their private information as well as strategies for financial information, Choi et al. (2011) and Hasnan et al. (2012). In this regard, in our research of Jones et al. (2008), we evaluate the ability of discretionary accruals model to detect the existence of fraudulent events, in fact through the study of Dechow et al. (1996) it appears that the modified Jones (1995) model is the best, since it provides the most reliable estimate of accruals. Kothari et al. (2005), performs a simulation to evaluate the power of Jones model and the modified Jones model it finds that with the measures of discretionary accruals performance conclusions prove be more reliable.

$$\frac{ACCR_{it}}{TA_{it-1}} = \alpha_0 + \alpha_1\left(\frac{1}{TA_{it-1}}\right) + \alpha_2\left(\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}}\right) + \alpha_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + \alpha_4 ROA_{it} + \varepsilon_{it}$$

Where:
- $ACCR_{it}$ = Accruals for firm i in year t
- TA_{it} = Total assets for firm i a t end year t-1
- ΔREV_{it} = Revenues in year t less revenues in year t-1 for firm i
- ΔAR_{it} = Changes in accounts receivable
- PPE_{it} = gross property, plant, and equipment; Property for firm i at end year t
- ROA_{it} = Return On Assets,
- ε_{it} = Error term for firm j in year t.

The measure of discretionary accruals (DA) is the residual of equation (1), It is the difference between actual total accruals (ACCR) deflated by total assets (TA_{it}) and normal accruals estimated by the fitted values of equation (1). The measure of actual total accruals (ACCR) is the difference between net income before extraordinary items and operating cash flowing from the statement of cash flows.

$$DA = \frac{ACCR_{it}}{TA_{it-1}} - \left[\alpha_0 + \alpha_1\left(\frac{1}{TA_{it-1}}\right) + \alpha_2\left(\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}}\right) + \alpha_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + \alpha_4 ROA_{it}\right]$$

3.3.2. Accounting Fraud
Accounting fraud is a deliberate action by leaders in the financial statements, in order to deceive the perception of different users of financial information. Several researchers (Albrecht et al. 2008; Albring et al. 2013; Skousen and Wright 2006) find that the binary variable indicating the presence of fraud is only most statistically significant and is able to explain some of total earnings manipulation regularization; This variable is dichotomous and qualitative. It takes the value 1 if the firm is a victim of fraud in the financial statements; otherwise it is set to 0.
- FRAUD = 1 if the firm has committed fraud in the financial statements
- FRAUD = 0 otherwise.

3.4. Control Variable

Our research follows the line of models developed by Amir et al. (1993), Barth and Clinch (1996) and Lenormand and Touchais (2009) who investigated the association studies, in the determining stock values incorporating the variable of "discretionary accruals" and the variable of "fraud" that reflects the companies detected by the AMF.

We choose the model of Ohlson (1995) which tests both the price model and return model, based primarily on financial variables such as earnings per share and equity capital and is considered the most model used in empirical research, since it checks the complementary relationship between accounting numbers and stock prices. According to the theory of signals, businesses characterized by high returns may have incentives to disclose more information to signal its good performance to

investors and to avoid the undervaluation of their shares (Collett and Hrasky 2005). Therefore, it's interested to integrate the return on equity (ROE) as a control variable on the price model. This variable is calculated by dividing net income by shareholders' equity. The second control variable according the price model is the ratio of book value expresses the growing opportunity. Thus, if the ratio is below 1, as result that the market value is higher than the book value.

On the other hand, the control variable associates to the return model are the Market-to-Book, book value, leverage and firms size. Market-to-Book variable is associated with information asymmetry and high agency costs (Smith and Watts 1992). If firms have a good growth opportunities, consequently it have an extensive increase in information transparency for the external investors (Chen et al. 2006; Roychowdhury and Watts 2007). Moreover, other studies state that firms with high growth opportunities have more investment, need and more resources of external financing (Daske et al. 2008), this need creates incentives to improve the information quality.

The leverage is also considered in the accounting literature as a determinant of the quality of accounting information. The signals theory suggests that firms which have low levels debt present an important signals on the market about the financial structures of firms (Hull 1999; Stulz 1990; Uyar and Kiliç 2012). Thus the company size is considered one of the most relevant factors in the level of disclosure information quality. Previous studies affirm the significant and positive relation between the company size and the value relevant in the stock market. (Bamber 1987; Collins et al. 1987; Edmans et al. 2012; Kim and Zhang 2015).

Table 1: Summary table of measures studied variables

ABRV	VARIABLE	MEASURES
Price	Stock Price	Share price of firms (i) in (t).
EPS	Earnings per share	Net income/ the number of shares outstanding
BVPS	Book value per share	Shareholder's equity / the number of shares outstanding
ROE	Return on equity	EPS/ BVPS
DA	Discretionary accruals	Measures by model Kothari (2005)
FRAUD	Accounting fraud	FRAUD = 1 if the firm has committed fraud in the financial statements. And FRAUD = 0 otherwise
RENT	Share return	$$RENT_{i,t} = \frac{P_{it} - P_{i,t-1} + DIVIDENDES_{i,t}}{P_{i,t-1}}$$
MARKET–TO BOOK	Market-to-Book	Book value / Market value
LEV	Leverage	LEV = financial debt / total assets
SIZE	Size firms	Ln total assets

4. Sample and Data Source

The sample of this research consists of French company's groups belonging to the CAC All-Tradable and adopted international accounting standards from 2005. The period runs from 2006 to 2010. The choice of the duration period studies which firms adopt the international accounting standards allows us. The information collection about fraudulent companies was manually performed from the document databases published by the newsletters of the l'AMF[1] and stock prices information (closing price) and dividends paid; they were recovered on the basis of Euronext and the site management of legal and administrative information[2], as well as the site of "boursier com".[3] The sample of this research consists of French companies groups belonging to the CAC All-Tradable and adopted international accounting standards from 2005. The five-year period runs from 2006 to 2010. The

[1]http://www.amf-france.org/
[2]http://www.info-financiere.fr/
[3]http://www.boursier.com/

choice of the duration period studies which firms adopt the international accounting standards allows us, therefore, to understand and test the informational relevance of the earnings manipulations.

5. Empirical Results
5.1. Descriptive Statistics

The outputs of the descriptive statistics shows the two models of value relevance, namely the price and return model for three sample: the full sample of firms (composed of 250 observations), the aggressive firms (composed of 85 observations) and the conservative firms (composed of 165 observations) during the period 2006-2010. The explanatory variable in the model price present an maximum average value (52.514) for the firms adopting a conservative strategy (negative discretionary accruals) compared to others sample. These results cooraborate with the findings of (Marquardt and Wiedman 2004; Capkun et al. 2008). However, the return model present less significant values than the price model. Furthermore, the fraud variable present an important signal on the stock market in all sample, with an average value (0.108) for the full sample, and (0.129) for the aggressive firms and an average (0.096) for the conservative firm. The variable related to the discretionary accruals measured by the kothari et al. (2005) model has an average of (-0.013) for full sample, this implies that the majority of firms in our sample tends to reduce accounting profits and move towards a policy of conservative with a maximum value of (0.524) and a minimum value of (-0.867).

The international standards IFRS require listed companies to present earnings per share because it is an indicator of the firm profitability. In this regard, the earnings per share variables are integrated into both the return and the price model with an average (2.592). In addition, the "book value per share" indicate the net value of a share for the firms, it has an average value (73,157) for the full sample probably high to the average stock price (50.419). Thus, most companies can cover their debts. While for the variable "return on equity" has an average value (2.154) with a maximum of (280,445) and minimum (31.278) on the full sample. This can be explained by the existence of fraudulent companies. In the return model, the variable related to "Market to book" has an average (1.510) with a maximum value (13,808) and a minimum value (0.0003) for full sample and an average value (1.621) for the firms adopted aggressive policy . In addition, the control variables related to the return model such as the size of the firms and debt, respectively present an mean value (9.156) and (0.182). This is valid in the context of the French market, which is characterized by an average size of companies measured by the natural logarithm of total assets with a value of (13 864) and a minimum value of (5.579), plus a percentage maximum debt (54.48%) and minimum (0.17%).

Table 2:   Descriptive statistics

	Model Price					*Model Return*			
	MIN	**MAX**	**MOYEN**	**ST.DEV**		**MIN**	**MAX**	**MOYEN**	**ST.DEV**
Model 1 : Full Sample									
PRICE	2.560	350	50.419	42.611	RENT	-0.794	2.966	0.131	0.488
EPS	-107.380	46.620	2.592	9.500	EPS	-107.38	46.62	2.592	9.500
BVPS	0.012	1101.921	73.157	151.550	M.B	0.0003	13.808	1.510	2.136
ROE	-31.278	280.445	2.154	20.826	FRAUD	0	1	0.108	0.311
AD	-0.867	0.524	-0.013	0.105	AD	-0.867	0.524	-0.013	0.105
FRAUD	0	1	0.108	0.311	LEV	0.001	0.544	0.182	0.152
					SIZE	5.579	13.864	9.156	1.508
Model 2 : Aggressive Firms (AD > 0)									
PRICE	2.720	185.100	46.351	34.997	RENT	-0.794	2.966	0.116	0.585
EPS	-0.460	46.620	4.462	6.843	EPS	-0.460	46.620	4.462	6.843
BVPS	0.024	1101.921	64.690	150.017	M.B	0.033	13.808	1.621	2.174
ROE	-0.100	163.446	2.868	18.398	FRAUD	0	1	0.211	0.410
AD	0.000	0.524	0.059	0.098	AD	0.000	0.524	0.059	0.098

	Model Price					*Model Return*			
	MIN	**MAX**	**MOYEN**	**ST.DEV**		**MIN**	**MAX**	**MOYEN**	**ST.DEV**
FRAUD	0	1	0.129	0.337	LEV	0.003	0.544	0.196	0.150
					SIZE	6.466	13.363	9.163	1.425
Model 3 : Conservative Firms (AD < 0)									
PRICE	2.560	350	52.514	46.005	RENT	-0.713	1.716	0.139	0.431
EPS	-107.380	29.610	1.629	10.502	EPS	-107.3	29.61	1.629	10.502
BVPS	0.012	1080.479	77.520	152.60	M.B	0.000	13.387	1.453	2.121
ROE	-31.27	280.445	1.786	22.017	FRAUD	0	1	0.145	0.353
AD	-0.867	-0.000	-0.051	0.087	AD	-0.867	-0.000	-0.051	0.087
FRAUD	0	1	0.096	0.296	LEV	0.001	0.520	0.174	0.153
					SIZE	5.579	13.864	9.153	1.553

Notes: **PRICE**: The price of a share of the company i at the end of year t. **EPS:** Earnings per share, as measured by Net income / The number of shares outstanding; **BVPS:** Book value per share measured by shareholder's equity / the number of shares outstanding. **ROE:** return on equity: *EPS / BVPS*. **FRAUD:** binary variable equal to 1 if the firm detected fraudulent 0 otherwise **AD:** Discretionary accruals measured by the model of Kothari (2005). **RENT**: (Pit-1 + Dividends -Pit it) / Pit-1. **MARKET TO BOOK:** Book value/ Market value. LEV: **Leverage**= financial debt/ totalassets. Size: firms' size.

5.2. Univariate Analysis

Table 3 presents the Pearson correlations of the variables of the value relavance model. As expected, price is significantly positively correlated with lagged book value, earnings per share and significantly negatively correlated to accounting fraud. However, return is significantly with accounting fraud and discretionary accruals. In addition, there is a strong correlation between earnings per share and accounting fraud in the two models of price and return.

Table 3: Pearson Correlation of price and return model with full sample for value relevance of accounting manipulation

Price model

	PRIX	**EPS**	**BVPS**	**ROE**	**FRAUD**	**DA**
PRIX	1					
EPS	0.273*	1				
BVPS	0.456	0.126*	1			
ROE	0.006	0.041	-0.049	1		
FRAUD	-0.196*	-0.136*	-0.117*	-0.031	1	
DA	0.033	0.205*	0.052	-0.01	-0.084	1

Notes: **PRICE**: The price of a share of the company i at the end of year t. **EPS**: Earnings per share, as measured by Net income / The number of shares outstanding; **BVPS**: Book value per share measured by shareholder's equity / the number of shares outstanding. **ROE**: return on equity: *EPS / BVPS*. **FRAUD**: binary variable equal to 1 if the firm detected fraudulent 0 otherwise. **DA**: Discretionary accruals measured by the model of Kothari (2005). ***, ** and *** significant at 10%, 5% and 1%.**

Return model

	RENT	**EPS**	**MTB**	**FRAUD**	**DA**	**LEV**	**SIZE**
RENT	1						
EPS	0.012	1					
MTB	0.003	0.054	1				
FRAUD	0.155*	-0.136*	-0.159*	1			
DA	-0.105*	0.205*	0.084	-0.084	1		
LEV	-0.107*	-0.017	0.079	0.093	0.098	1	
SIZE	0.029	0.032	0.067	-0.081	-0.063	-0.133*	1

Notes : **RENT** : (Pit –Pit-1+ Dividendes it) / Pit-1. **FRAUD**: binary variable equal to 1 if the firm detected fraudulent 0 otherwise. **DA**: Discretionary accruals measured by the model of Kothari (2005). **EPS**: Earnings per share, as measured by Net income / The number of shares outstanding. **MARKET TO BOOK**: Book value/ Market value. **LEV**: Leverage= financial debt/ total assets. **Size**: firms' size. ***, ** and *** significant at the 10%, 5% and 1%.**

5.3. Multivariate Analysis

5.3.1. The Value Relevance of Accounting Manipulation on the Price Model
The price regression model with discretionary accruals (positive or negative) is globally significant. In addition, the model does not suffer from the problem of multicollinearity given the maximum VIF does not exceed (1.04) which is well below the critical value 10. The variable "Fraud" has a negative and significant effect on the stock price. This result was expected because the credibility and reliability of accounting information are questioned, then investors lost confidence in the information provided by the fraudulent companies. Consequencly, fraud presents an important negative signal on the stock market in full sample with coefficient value (-16,662) and the t- Student value (-2.19), and the fraud coefficient is significant at the 1 percent level in one of the regressions for the aggressive firms (model 2). Concerning the variable of "discretionary accrual", the outputs of this variable have an insignificant effect on the stock price with a coefficient of (-17.19) and t-Student (-0.76), this result is not shocking, given that fraud directly observable signal on the stock market, while the discretionary accruals are estimated earlier results, thus they present an indirect effect on value relevance model. However, the discretionary accrual variable is significant at the 5 percent level in one of the regressions for the aggressive firms (model 2). This implies that the increase of artificial result has a positive and significant effect on the stock price. Our results corroborate the work of (Healy and Palepu (2001)) who said that manager incentive to manipulate accounting results upward to their interest, especially for companies adopting a managerial compensation plan linked to the share value.

After separately testing two variables related to fraud and discretionary accruals, and found each of the effects on the stock price, we conduct a regression of a variable, which shows the interaction between the binary variable "fraud" and the variable discretionary accruals. Through the static tests, we find that the interaction variable has a negative and not significant effect with a coefficient of (44.272) and a value of t- Student (-1.31). Therefore, we note that in the presence of accounting fraud, earnings manipulation via discretionary accruals didn't affect the price model. Accounting fraud emits a more powerful and meaningful signal on the stock market, thus the effect of discretionary accruals is less significant in presence of fraud. Consequently, our hypothesis H_2 is verified.

In addition, the "earnings per share" variable have a positive and significant effect on the stock price. This result means that when the company makes a profit, the reaction of investor will be rather positive, which translates the increase of the share price on the stock market. Similarly, the variable "book value per share" has a positive and significant effect on the price of shares in the model 1, 2 and 3. These significant results between the financial statement ratios and the price model allow us to prove the concept of 'value relevance' that affirms the association between accounting numbers and stock prices. This corroborates with the work of (Hull 1999; Kim and Zhang 2015) who prove that earnings per share and book value per share are the main determinants of price action in the stock market. However, the variable "return on equity" (ROE) has an insignificant effect on the stock price with a coefficient (0.027) and t-Student (0.25) in full sample. This can be explained by the existence of some fraudulent companies in our sample.

Table 4:   Regression Price model

	Model (1.1)		Model (1.2)		Model (2.3)		Model (2.4)		Model (3.5)		Model (3.6)	
	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic
CONST	40.855	14.27	38.627	14.48	36.298	8.43	35.293	8.38	38.131	9.46	39.412	11.19
DA	-17.197	-0.76	-	-	66.572**	2.04	-	-	-42.109	-1.18	-	-
FRAUD	-16.662**	-2.19	-	-	-35.924***	-3.8	-	-	-7.941	-0.74	-	-
FRAUD×DA	-	-	-44.272	-1.31	-	-	-83.729	-1.37	-	-	-17.122	-0.18
EPS	0.954***	3.76	1.038***	4.12	1.649***	3.35	1.737***	3.31	0.968***	3.26	0.992***	3.14
BVPS	0.117***	7.53	0.120***	7.74	0.041**	1.84	0.052**	2.18	0.148***	7.42	0.147***	7.42
ROE	0.027	0.25	0.037	0.33	0.252	1.47	0.258	1.39	-0.046	-0.34	-0.043	-0.31
R²	*0.256*		*0.249*		*0.326*		*0.204*		*0.292*		*0.289*	
Maximum	*1.04*		*1.03*		*1.08*		*1.06*		*1.06*		*1.1*	

	Model (1.1)		Model (1.2)		Model (2.3)		Model (2.4)		Model (3.5)		Model (3.6)	
	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic
VIF *Nombre of observations*	250		250		85		85		165		165	

Notes: **FRAUD**: binary variable equal to 1 if the firm detected fraudulent 0 otherwise **AD**: Discretionary accruals measured by the model of Kothari (2005).**EPS**: Earnings per share, as measured by Net income / The number of shares outstanding; **BVPS**: Book value per share measured by shareholder's equity / the number of shares outstanding. **ROE**: return on equity: *EPS / BVPS*. ***, ** and *** represent significance at the 10%, 5% and 1%.**

5.3.2 The Value Relevance of Accounting Manipulation on the Return Model

The regression on the return model in general shows that the model is less significant than price model. The raison that the return model includes the price of the previous year (t-1), which can reduce the effect of several variables that composes the model. Therefore, the accounting literature often use price model to test the value relevance for a given year and neglects the return model.

Accounting fraud has a positive and significant effect on the stock return with a coefficient (0.272) and t-Student value (2.69) in full sample. This result corroborates with previous studies of Djama et al. (2010) who affirm the existence of a significant relation between equity returns in the stock market and fraudulent accounting information. However, discretionary accrual has an insignificant effect on the return model. So the return model isn't influenced by discretionary accrual. Indeed, the volatility of prices and equity returns are the results of various signals disclosed in the stock market (good or bad information). But the discretionary accrual is calculated by the accounting figures of previous results; Therefore, it doesn't constitute a direct signal to investors.

In addition, the regression return model with the interaction between the accounting fraud and discretionary accrual has no significant effect on the return model in our sample. In the case, when firms adopt an aggressive accounting in the scores The effect of discretionary accruals is less significant in the presence of fraud.

The association between earnings per share (EPS) and return on shares has no significant effect with a coefficient of (0.002) and t -Student value (0.78). As for the variable "Market to book" has no significant effect with a value coefficient (0.01) and t-Student estimated (0.69). This implies that the return model "RENT" does not significantly explains the value relevance of accounting figures, in fact, the study of Kothari and Zimmerman (1995) argue about this interpretation. For the control variables such as the company size and debt have no significant effect on the return model.

Table 5:   Regression Return model

	Model 1 : Full Sample				Model 2 : Aggressive Firms (AD > 0)				Model 3 : Conservative Firms (AD < 0)			
	Model (1.1)		Model (1.2)		Model (2.3)		Model (2.4)		Model (3.5)		Model (3.6)	
	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic	Coef	t-statistic
CONST	0.087	0.44	0.144	0.72	0.295	0.523	0.05	0.11	0.187	0.89	0.216	1.04
DA	-0.429	-1.43	-	-	-0.824	1.33	-	-	**-0.269**	**-0.65**	-	-
FRAUD	0.272***	2.69	-	-	-0.517***	-3.54	-	-	**0.061**	**0.6**	-	-
FRAUD×DA	-	-	-0.262	-0.58	-	-	-5.984**	-2.34	-	-	**0.581**	**0.65**
EPS	0.002	0.78	0	0.25	-0.001	-0.13	-0.001	-0.14	0.001	0.45	0	-0.02
MB	0.01	0.69	0.002	0.18	0.031	1.07	0.041	1.38	-0.01	-0.69	-0.015	-0.94
LEV	-0.365	-1.79	-0.335	-1.63	-0.824	1.33	-	-	-0.22	-0.99	-0.239	-1.08
SIZE	0.005	0.29	0.004	0.22	-0.515	-1.22	-0.349	-0.78	-0.002	-0.09	0	-0.04
R²	0.026		-0.006		0.127		0.043		-0.017		-0.015	
Maximum VIF	1.05		1.03		1.11		1.12		1.08		1.08	
Nombre of observations	250		250		85		85		165		165	

Notes: **FRAUD**: binary variable equal to 1 if the firm detected fraudulent 0 otherwise **AD**: Discretionary accruals measured by the model of Kothari (2005). **EPS**: Earnings per share, as measured by Net income / The number of shares outstanding; **BVPS**: Book value per share measured by shareholder's equity / the number of shares outstanding. **MARKET TO BOOK**: Book value/ Market value. **LEV**: Leverage= financial debt/ total assets. **Size**: firms' size. ***, ** and *** represent significance at the 10%, 5% and 1%.**

6. Conclusion
Previous studies have examined the effect of corporate gouvernance and earnings managements, the relation between value relevance and the adoption of accounting standards. Our study contributes to the existing literature by providing systematic evidence to test the effect of illegal manipulation (fraud) and legal manipulation (discretionary accrual) on the value relevance. To achieve this objective, we refer to the Ohlson model (1995) which considers two models namely the price model and return model. Our finding affirms the main objectives of the signal theory that bad information is prevailed quickly in the stock market earlier than the good news. Additionnaly, the significant interactionn between discretionary accrual and accounting fraud on the value relevance. In this regard, we note that our hypotheses are checked namely, the fraud which has a negative and significant effect on the price and return, as well as the existence of the fraud which diluted the effect of discretionary accrual, given that fraud is such a direct and observable signal in the stock market.

References
[1]   Albrecht, G., M. Krancher, and S. Albrecht. 2008. Asset Misappropriation Resarch White Paper for the Institute for Fraud Prevention.
[2]   Albring, S., S. Huang, R. Pereira, and X. Xu. 2013. The effects of accounting restatements on firm growth. *Journal of Account. Public Policy* 32 357–376.
[3]   Amir, E., T. Harris, and E. Venuti. 1993. A comparison of the value-relevance of US versus non-US GAAP accounting measures using form 20-F reconciliations. *Journal of Accounting Research*:230-264.
[4]   Bamber, L. S. 1987. Unexpected earnings, firm size, and trading volume around quarterly earnings announcements. *Accounting Review*:510-532.
[5]   Barth, M., W. Beaver, and W. Landsman. 1998. Relative valuation roles of equity book value and net income as a function of financial health. *Journal of Accounting and Economics* 25 (1):1-34.
[6]   ———. 2001. The relevance of the value relevance literature for financial accounting standard setting: another view. *Journal of accounting and economics* 31 (1):77-104.
[7]   Barth, M., and G. Clinch. 1996. International Accounting Differences and Their Relation to Share Prices: Evidence from UK, Australian, and Canadian Firms*. *Contemporary Accounting Research* 13 (1):135-170.
[8]   Basu, S. 1997. The conservatism principle and the asymmetric timeliness of earnings 1. *Journal of accounting and economics* 24 (1):3-37.
[9]   Capkun, V., A. Cazavan Jeny, T. Jeanjean, and L. Weiss. 2008. Earnings management and value relevance during the mandatory transition from local GAAPs to IFRS in Europe. *Available at SSRN 1125716*.
[10]   Chen, G., M. Firth, N. Gao, and O. Rui. 2006. Ownership structure, corporate governance, and fraud: evidence from China. *Journal of Corporate Finance* 12:424-448.
[11]   Choi, H., B. Kim, and J. Lee. 2011. Value relevance of discretionary accruals in the Asian financial crisis of 1997–1998. *J. Account. Public Policy* . 30:166–187.
[12]   Collett, P., and S. Hrasky. 2005. Voluntary disclosure of corporate governance practices by listed Australian companies. *Corporate Governance: An International Review* 13 (2):188-196.
[13]   Collins, D., S. Kothari, and J. Rayburn. 1987. Firm size and the information content of prices with respect to earnings. *Journal of Accounting and Economics* 9 (2):111-138.
[14]   Collins, D., E. Maydew, and I. Weiss. 1997. Changes in the value-relevance of earnings and book values over the past forty years. *Journal of accounting and economics* 24 (1):39-67.
[15]   Daske, H., L. Hail, C. Leuz, and R. Verdi. 2008. Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of accounting research* 46 (5):1085-1142.

[16]   Dechow, P., A. Sloan, and A. Sweeney. 1996. Causes and consequences of earnings misstatement: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13 (1):1–36.

[17]   Easton, P. 1999. Security returns and the value relevance of accounting data. *Accounting horizons* 13 (4):399-412.

[18]   Edmans, A., I. Goldstein, and W. Jiang. 2012. The real effects of financial markets: The impact of prices on takeovers. *The Journal of Finance* 67 (3):933-971.

[19]   Filip, A., and B. Raffournier. 2010. The value relevance of earnings in a transition economy: The case of Romania. *The International Journal of Accounting* 45 (1):77-103.

[20]   Francis, B., I. Hasan, and Q. Wu. 2013. The benefits of conservative accounting to shareholders: Evidence from the financial crisis. *Accounting Horizons* 27 (2):319-346.

[21]   García.Meca, E., and J. Sánchez.Ballesta. 2009. Corporate Governance and Earnings Management: A Meta-Analysis. *Corporate Governance: An International Review* 17 (5):594-610.

[22]   Hasnan, S., R. A. Rahman, and S. Mahenthiran. 2012. Management motive, weak governance, earnings management, and fraudulent financial reporting: Malaysian evidence. *Journal of International Accounting Research* 12 (1):1-27.

[23]   Healy, P., and K. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics* 31 (1):405-440.

[24]   Holthausen, R., and R. Watts. 2001. The relevance of the value-relevance literature for financial accounting standard setting. *Journal of accounting and economics* 31 (1):3-75.

[25]   Hull, R. 1999. Leverage ratios, industry norms, and stock price reaction: An empirical investigation of stock-for-debt transactions. *Financial Management*:32-45.

[26]   Jones, J. 1995. Earnings Management During Import Relief Investigations. *Journal of Accounting Research Symposium.* 29 (2):193-228.

[27]   Jones, K., G. Krishnan, and K. Melendrez. 2008. Do Models of Discretionary Accruals Detect Actual Cases of Fraudulent and Restated Earnings? An Empirical Analysis. *Journal of Contemporary Accounting & Economics-Wiley Online Library*.

[28]   Kim, J., and L. Zhang. 2015. Accounting Conservatism and Stock Price Crash Risk: Firm-level Evidence. *Contemporary Accounting Research*.

[29]   Kothari, S., A. Leone, and W. Charles. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39 (1):163-197.

[30]   Kothari, S., and J. Zimmerman. 1995. Price and return models. *Journal of Accounting and economics* 20 (2):155-192.

[31]   Lenormand, G., and L. Touchais. 2009. Les IFRS améliorent-elles la qualité de l'information financière? Approche par la value relevance. *Comptabilité-Contrôle-Audit* 15 (2):145-163.

[32]   Marquardt, C., and C. Wiedman. 2004. The effect of earnings management on the value relevance of accounting information. *Journal of Business Finance & Accounting* 31 (3-4):297-332.

[33]   Ohlson, J. 1995. Earnings, book values, and dividends in equity valuation*. *Contemporary accounting research* 11 (2):661-687.

[34]   Roychowdhury, S., and R. Watts. 2007. Asymmetric timeliness of earnings, market-to-book and conservatism in financial reporting. *Journal of Accounting and Economics* 44 (1):2-31.

[35]   Ruch, G., and G. Taylor. 2014. The Effects of Accounting Conservatism on Financial Statements and Financial Statement Users: A Review of the Literature. *Available at SSRN 1931732*.

[36]   Ryan, S. 2006. Identifying conditional conservatism. *European accounting review* 15 (4):511-525.

[37]   Skousen, C. J., and C. J. Wright. 2006. Contemporaneous risk factors and the prediction of financial statement fraud. *Available at SSRN 938736*.

[38]   Smith, C., and R. Watts. 1992. The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of financial Economics* 32 (3):263-292.

[39]   Stulz, R. 1990. Managerial discretion and optimal financing policies. *Journal of financial Economics* 26 (1):3-27.

[40]   Uyar, A., and M. Kiliç. 2012. Value relevance of voluntary disclosure: evidence from Turkish firms. *Journal of Intellectual Capital* 13 (3):363-376.

[41]   Van der Meulen, S., A. Gaeremynck, and M. Willekens. 2007. Attribute differences between US GAAP and IFRS earnings: An exploratory study. *The International Journal of Accounting* 42 (2):123-142.

[42]   Watts, R. 2003. Conservatism in accounting part I: Explanations and implications. *Accounting horizons* 17 (3):207-221.