# THE VALUE RELEVANCE OF THE FINANCIAL STATEMENTS' BOTTOM LINES IN THE EMERGING EGYPTIAN CAPITAL MARKET

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## ABSTRACT

*This study aims to examine the value relevance of the bottom lines of the financial statements in the Egyptian context after the inception of the new version of Egyptian Accounting Standards of 2006. Considering the tradition accounting value of conservatism and the firm size, the price and return models are operationalized using a sample of the most actively traded companies on the Egyptian Stock Market in the period from 2007-2009. Three important conclusions captured from the results; first, the bottom lines of the financial statements are value relevant and the accrual components are upper handed over the cash flow in estimating the market value of those firms. Second, conservatism practices is still alive in the Egyptian context; however, it does not prevent the accounting information from being value relevant. Third, the promulgation of the new version of EASs shifts the value relevance towards book value over the other accounting information. These results should be interpreted in the light of the rapid shift towards capitalism and the deregulation program followed by the Egyptian government in the recent years. Also, these results might possibly be attributed to a significant improvement in the familiarity of the preparers of accounting information with the new accounting practices and the needs of financial reporting users in Egypt. As such, this study contributes to the existing literature by investigating and operationalizing the value relevance of accounting information in an emerging market such as Egypt after the introduction of the new version of EASs of 2006.*

*Keywords:* Emerging Market; Egypt; Conservatism; EASs

# I.   INTRODUCTION

Accounting, broadly considered, is the measurement and communication of economic information relevant to decisions, especially investment decisions.    The value relevance of accounting information attracts considerable attention in the accounting literature. The value relevance of accounting information is a frequently debated accounting issue these days. There is a great debate on the relevance of accounting theory to produce information which could be used in making decisions, notably investment decisions in capital markets.  Since Ball and Brown (1968) who maintain that the value relevance of accounting information – earnings above all – plays an important role in the context of investment decisions but Lev (1989), *inter alia*, in contrast, indicates that the value relevance of accounting earnings is very low.   Return and price models are used to assess the relationships between the proposed accounting information and the security pricing movement (Amir *et al.,* 1993; Harris *et al.*, 1994; Kothari and Zimmerman, 1995; Amir and Lev 1996; Barth and Clinch, 1996; Henning and Stock, 1997; Haw *et al.,* 2001).

Ohlson (1995) proposed a model which supplies a link between market value and accounting data and other information. The clean surplus model shows that the market value of a stock can be represented in one of two ways: (1) the present value of future dividends; or (2) the book value of shareholders' equity plus the present value of future abnormal earnings. In the current study, the researcher investigates the literature on the relation between accounting information and firm's value in the capital market and conducts an analysis of price and return models which depend on accounting information, as derived from the Ohlson model. The Ohlson model is selected because of its heavy dependence on the

accounting information – book value and abnormal earnings – which are examples of value creation.  One of the conditions of the model is the use of conservatism which could create future abnormal earnings and the model's inclusion of $V$ – information other than abnormal earnings (Ohlson, 1990; Ohlson, 1991 and Feltham and Ohlson 1995).

In the modern history, Business environment of Egypt encounters different cycles (Abd-Elsalam and Weetman 2003). The Egyptian market is officially established in 1888, the Alexandria Stock Exchange (ASE) was one of the world's first organised securities markets.    Next came the establishment of the Cairo Stock Exchange (CSE) in 1903.  By the late 1930s, the Egyptian Stock Market was ranked fifth among the most active in the world (Mecagni and Sourial, 1999).

Egypt, like other developing countries, is resurrecting its existing stock market and establishing new one in the wake of a financial sector reform.    The main objective is to make it easier to mobilize the long-term credit deemed necessary for economic growth.    The resurrection process has seen policy and institutional changes aimed at enhancing market efficiency, increasing liquidity and reducing volatility, thus facilitating the role of the stock market in the development process (Green *et al.,* 2000).

The Egyptian Capital Market is categorized as one of the emerging markets. The International Finance Corporation (IFC) has defined the emerging markets (1998) as those of developing, non-industrialised nations in a state of transition towards a market economy whose indices of overall economic performance and capital market performance are taking a positive growth trend.

Mecagni and Sourial (1999), state that the Egyptian Capital Market has undergone four phases: the first phase, from the foundation of the market until the mid-1950s, the second, from the mid-1950s until the early 1970s; the third, from the mid-1970s until the early 1990s; and finally the fourth, from the enactment of the Capital Market Act of 1992 to the present.

In the first phase (1888-1955), from the very beginning, the market's activity showed steady progress. By the late 1930s, the market was, as we have seen, ranked the fifth most active in the world. The healthy activity was sustained even after the 1952 revolution, despite the great uncertainty which emerged over the market during this period. This is supported by the fact that 56 new companies were listed during the period from 1952 to 1956. In the second phase (1956-1973), the level of activity in the market was influenced by the government's shift towards nationalisation and centralization of the economy. The trend was manifested directly after the revolution in 1952, but it was not until 1956 that specific action was taken, heralding a shift towards a socialist ideology. This change resulted in a serious drop in the number of new offerings. Consequently, brokers and intermediaries started to abandon the Egyptian market. Eventually, the golden era of the stock exchange ended. With the stagnation of the stock exchange, security-trading vocabulary and knowledge almost vanished.

In the third phase (1974-1990), the market experienced another dramatic shift, but in the opposite direction. Upon the announcement of the adoption of an 'open-door' economic policy, the return to a market economy was signalled. New legislation was designed to encourage the flow of foreign and Arab capital to take part in new projects alongside national capital. New laws were aimed at resurrecting the capital market; they were enacted in order to regulate investment taxation and form companies in accordance with the liberalisation scheme. Additionally, the Capital Market Authority was established 1981 in order to regulate the capital market and guarantee the integrity and effectiveness of its operations, but it was not sufficient to revitalise the capital market where the uncertainty among potential investors was particularly strong.

Finally, the fourth phase (1991 to the present) should be considered. The actual conversion to a market economy did not take place until the Privatisation Law and the Capital Markets Law was enacted. The Privatisation Law (Law 203/1991) was the basic legislation for the development of the privatisation Program and the encouragement of economic reform. The law identified 314 public sector companies to be sold to the public and restructured them under holding companies as joint stock companies. The Investment Law 8/1997 and The Central Depository Law 93/2000 are introduced to enhance the business environment. The Capital Markets Law (Law 95/1992) facilitated the role of the Capital Market Authority (CMA) to function as an independent regulator of the stock exchange. Some key provisions of the law allowed for the lifting of restrictions on foreign investment and the abolition of capital gains taxes and taxes on dividends. The law also established an Arbitration Board to address grievances raised by investors.

In addition to laws and regulations that are previously mentioned, three Ministerial Decrees-(i.e., 503/1997, 345/2002, and 243/2006)-were successively issued to develop Egyptian Accounting standards to comply with International Accounting Standards and IFRS.

It should be noted that there is discrepancy of the value relevance of accounting information between developed countries on one hand and their less developed ones on the other hand, an interpretation of that discrepancy may stem from differences in accounting standards (Ball *et al.,* 2000; Graham *et al.*, 2000 and Schipper, 2005). In this regards, the main purpose of this study is to provide empirical evidence on the value relevance of accounting information in the Egyptian context, through using components from different valuation models and emphasizing the value relevance of the components of the price and return models in developing countries. Taking into consideration the effect of firm size and the influence of the tradition accounting value of conservatism on the value relevance of financial statements' bottom lines, the aforementioned purpose is in conjunction with the introduction of new version of EASs that based on IFRSs on shifting the weight of value relevance of accounting information towards book value at the expense of other information. The reasons for choosing Egypt are as follows: First: most of the literature uses evidence from mature economies with different accounting procedures. There have been few studies of emerging countries (see for example, Lin and Chen, 1999; Haw *et al.,* 2001; Tomaszewski and Jermakowicz, 2001 and Ragab and Omran, 2006). Given that financial accounting standard setting is a social-policy-making process and therefore is subject to political, social and legal pressures in addition to business and economic pressures. These economies have different environments and accounting practices which differ in the rigidity of their compliance with the historical cost principle, thus leading to various degrees of conservatism in the earnings measure and the book value measure. Second: capital markets in developing countries are immature; the

response of the firm's value accounting information may be completely different from the response in a mature market. Third: to investigate the effect of the accounting values -i.e. conservatism- and in turn on the accounting figures generated by the Egyptian accounting system (Samuels amd Oliga, 1982; Ainajjar, 1986; Berry, 1987; Doupnik and Salter, 1993; Kantor *et al.*, 1995; Humphreys, 1996; HassabElnaby and Mosebach, 2005 and Dahawy *et al.,* 2011). Fourth: the country has grown rapidly since the early 1990s as an emerging country with much potential for foreign investment. the Egyptian stock market at one time was ranked fifth among the most active in the world (Mecagni and Sourial, 1999) and affected almost the entire Arab world (Kantor *et al.,* 1995); it allows the attention of the regulators to be drawn to the non-compliance points of the IASs/IFRSs which could be interpreted as their incompatibility with the needs of developing countries in general and of Egypt in particular or by that the Egyptian environment needs to be developed.

This current study contributes to the existing literature by investigating and operationalizing the relationships between the accounting information and the variability of firms' market value in an emerging market such as Egypt and investigates whether the attempts to enhance the business environment in such emerging market succeeded to improve the value relevance of accounting information or not because of the influence of the tradition accounting value of conservatism.

In section 2 the literature and hypotheses development regarding the value relevance of the bottom lines of financial statements and the conservatism accounting value are discussed; Section 3 addresses the sample selection and methodology followed by the study.

Section 4 discusses the findings and results of the price and return models. Section 5 gives a conclusion and opportunities for further research.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### *Value relevance of financial statements' bottom lines*

The Ohlson model is one of the controversial models in accounting that addresses the value relevance of accounting information, the model has many proponents (Dechow *et al.*, 1999; Liu and Ohlson, 1999; Lo and Lys, 2000; Giner and Reverte, 2001; Ota, 2001, 2002; Tomaszewski and Jermakowicz, 2001; Beaver, 2002; Penman, 2004 and Subramanyam and Venkatachalam 2007) and opponents (Liu and Ohlson, 1999; Lo and Lys, 2000; Yee, 2000; Beaver, 2002 and Ohlson, 2003). Most of the proponents focused upon that the model is based on accruals accounting which captures the value generated by selling products and services to the customers. In other words, it treats the investments as assets, not as value losses. This captures the value within the forecast period better than cash flow does. Cash flows focus on the continuing value which is hard to forecast. The model focuses on accounting value drivers which are the profitability and growth of the investment. The Ohlson model can be applied with any accounting principles. The attractiveness of the Ohlson model to empiricists is that it provides a testable pricing equation which identifies the roles of accounting and non-accounting information – i.e., $V$. In addition, it is straightforward to investigate numerous categories of income on the prices, so long as these categories are components of comprehensive income. However

most of the opponents criticised the model focusing on that Ohlson model is merely a new version of its ancestor residual income valuation. The model satisfies the assumptions of the perfect market, i.e., no information asymmetry and no incentive to manage accounting numbers. There is also no strong empirical evidence to support the model. As regards the former point, Beaver (2002) states that much accounting research is in reduced form (using proxies) with a model which specifies relationships among coefficients in a set of equations in progress.

The value relevance of book value is of limited concern in the literature compared to earnings. As with earnings, a debate has arisen about the value relevance of book value. In his three variables model, Ohlson (1995) revives the theoretical framework which relates the market value of equity to the book value, abnormal earnings and information other than abnormal earnings. This resurrects the interest of book value. Book value is value relevant with respect to firms' determinants (Ohlson and Penman 1992; Wild, 1992; Collins *et al.*, 1997; Tomaszewski and Jermakowicz, 2001 and Subramanyam and Venkatachalam, 2007).

The value relevance of earnings is a debatable concern in the accounting literature. The results of substantial portion of the prior literature support the value relevance of earnings and are consistent with the theory that Anglo-Saxon accounting systems provide more value relevance over the Non-Anglo-Saxons (Alford *et al.*, 1993; Hall *et al.*, 1994; Harris *et al.,* 1994; Niskanen *et al.,* 1994; Penman and Sougiannis, 1998; Rees, 1999 and Ashbaugh and Olsson, 2002). However, other literature contrasted this theoretical framework; Joos and Lang (1994) find that the $R^2$

ranking of the regressions performed for both returns and prices is as follows, France, Germany and the UK. UK is assumed less conservative than France and Germany.

In discounted cash flow (DCF) analysis the terminal value often has considerable weight in the calculation but its determination is sometimes *ad hoc* or requires assumptions regarding free cash flows beyond the horizon – i.e., continuing value. Techniques based on forecast earnings make the claim that accrual adjustments to cash flows bring the future forward relative to cash flow analysis, but this claim has not been extensively validated in a valuation context (Penman and Sougiannis, 1998). The previous statement could be criticised where it implicitly contains overlapping – i.e., returning to accruals accounting. Penman (2004) states that cash flows are reliable and it is easy to be involved in valuation – i.e. discounted cash flow. However, it is not a value creation where it ignores the matching principle and also does not recognize the values which are not in cash flows. Amir annd Lev (1996) find that earnings, book values and cash flows are largely irrelevant on a stand-alone basis when valuing companies in the cellular telephone industry. Brief and Zarowin (1999) find that book value and dividends have almost the same explanatory power as book value and reported earnings. Penman (2004) states that although dividends are usually fairly easy to forecast in the short run, they are not usually tied to value creation; they are a distribution of value rather than the creation of value.

In this sense, the current study argued that the information which is produced by EASs, which are heavily based on the IFRSs, should be useful for investment decisions. If not, this means either that there is a case of non-compliance between the IFRSs and the Egyptian

environment or that the information by itself is useful but the environment needs to be developed. In the light of the aforementioned discussion, the current study tests the following hypothesis.

*H1: Financial statements' bottom lines are value relevance*

### Conservatism and IFRSS

Conservatism is a kind of asymmetrical verification where costs and losses are promptly recognized, in contrast with income and profits. It is argued that conservatism is one of the most influential and yet debatable practical principles in accounting. It could be said that it is a joint factor in the GAAP worldwide, with different levels of application. Taking the cultural approach into consideration, it is argued that countries which adopt the micro-based framework are less conservative in nature than countries which adopt the macro-based, with different levels of value relevance, but this evidence is not conclusive (Alford *et al.,* 1993; Harris *et al.,* 1994; Joos and Lang, 1994). It is argued that conservatism has increased in the last three decades in the U.S. (Watts, 2003), although this is contradicted by others (Riahi-Belkaoui, 2000) and the regulatory agencies (FASB, 1980). Those with practical experience support the former view, perhaps because of the high risk of litigation in the U.S environment.

As supported by the cultural approach proposed by Hofstede (1980) and Gray (1988) and in a linkage between societal dimensions and accounting values, Egypt could be characterized as having high collectivism and low individualism values, there is large power distance, strong uncertainty avoidance and strong masculinity. However in recent years, there has been something of a tendency to move in the opposite direction. The researcher thinks that the reasons for this are that

values are reinforced by the relative development of the capital market, development of local regulation bodies, and development of the privatization program. In this sense, statutory control, uniformity, conservatism and secrecy are traditionally the characteristics of Egypt, rather than professionalism, flexibility, optimism and transparency values (see for example, Samuels and Oliga, 1982; Ainajjar, 1986; Berry, 1987; Doupnik and Salter, 1993; Kantor *et al.,* 1995; Humphreys, 1996; HassabElnaby and Mosebach, 2005 and Dahawy *et al.*,2011).

Conservatism is defined by Basu (1997, p. 7) as "*the accountant's tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses*". Basu (1997) used negative and positive unexpected annual share returns to proxy for 'bad news' and 'good news', respectively. He expected that if conservatism was widespread in the financial statements, accountants would tend to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses and, consequently, this would result in a greater probability that bad news would receive timely accounting recognition than good news would.

There is a consensus among academics that the IASs/IFRSs are derived from Anglo-American accounting, which is characterized by individualism, small power distance and weak uncertainty avoidance (Doupnik and Tsakumis, 2004). These societal constructs lead to professionalism, flexibility, optimism and transparency. Such accounting values consider investment decisions rather than the economic planning which is the motive behind the financial reporting in the developing economies. Because IFRSs/IASs are the main source of the EASs, the current study assumes that the accounting figures produced by the EASs should be value relevant. If they are not, their non-compliance is the main explanation or the Egyptian environment or that the information by itself is useful but the environment needs to be developed. This is ascribed to the weak enforcement mechanisms and the lack of practical implementation guidelines on requirements under both Egyptian and international accounting standards (World Bank, 2002; UNCTAD, 2008). IASs are adopted in Egypt as a requirement of the World Bank and IMF to encourage foreign investment in Egypt without considering the cultural characteristics of the Egyptian environment – statutory control, uniformity, conservatism and secrecy, rather than professionalism, flexibility, optimism and transparency. Egypt still suffers from problems both in accounting practices and accounting education problems (UNCTAD, 2008). For this reason, regulatory bodies should consider the culture of those developing countries which are obliged to adopt IASs/IFRSs as a criterion of joining the market economy. Cultural, linguistic, political/civil, economic/demographic and legal/tax relativisms seem to be the environmental conditions which are likely to affect the determination of accounting standards and countries which are compelled to adopt specific GAAP will shift towards the GAAP which come nearest to complying with their culture (Harrison and McKinnon, 1986; Salter and Niswander, 1995 and Riahi-Belkaoui, 2000). The current study considers that these reasons are behind Egypt's non-compliance with IASs/IFRSs, but the researcher also thinks that full adoption of the IAS is simply a matter of time and the attainment of the right qualifications, so long as the providers of accounting information become more familiar with the full application of the IAS/IFRSs.

Because of the accounting conservatism, there is a debate about the value relevance of earnings. The rationalisation of this argument is that current earnings do not reflect the underlying economic events in a timely manner and are therefore not coordinated with stock price movements (Basu, 1997; Easton, 1999; Easton *et al.*, 2000). Ota (2001) argues that current earnings have mainly confirmatory value, while management forecasts have predictive value. However, the value relevance of current earnings is expected to be less than that of management forecasts of earnings, because current earnings information contains a larger proportion of the "stale" component – i.e. the portion of earnings stem from conservatism which the market had already anticipated before the announcement of earnings – than do management forecasts of earnings information. Based on the aforementioned discussion, the current study will investigate whether conservatism is negatively influencing the value relevance of financial stalemates' bottom lines that prepared under the EASs that in turn, based on the IFRS as the main source of construction through investigating the following hypothesis:

*H2 Conservatism does not prevent financial stalemates' bottom lines from being value relevant.*

The Egyptian accounting standards consist of 35 EASs that were prepared on the basis of IFRSs (2005 version), except for four departures and adaptations (UNCTAD, 2008). Preparers of financial reports refer to IFRSs in cases where EASs do not address specific issues. It is argued that the accounting information produced by IASs/IFRSs is value relevant for investment decisions in the Anglo-Saxon environment; where IASs/IFRSs are originally developed. This view is supported in several previous studies (Niskanen *et al.,* 1994 and Ashbaugh, 2001), although the results are not conclusive.

Kousenidis *et al.* (2010) discuss the issue that the IFRS aim to provide more value-relevant accounting information to the shareholders. To achieve the former objective, the IFRS ignore the conservatism principle as basic principles of the IFRS, while in most cases (apart from the inventory valuation) the historic cost principle is substituted with the fair value principle (FVP). The aforementioned changes lead to firm values that are closer to the "intrinsic" values and improve the value relevance of book value over earnings. However, these dramatic changes are more serious in countries that their accounting systems are not Anglo-Saxon (Ball *et al*., 2000 and Schipper, 2005), Egypt is one of them. This in turn implies that the accounting information reported under the IFRS will be in conflict with the accounting value of conservatism that represents a coherent tradition of the Egyptian accounting system for very long time. Considering the above mentioned changes in the IFRSs that lead to shifting the value relevance towards the book value at the expense of the other accounting information, the current study tests the following hypothesis:

*H3: The book value has dominant value relevance over other financial statements' bottom lines.*

*Size*
Watts and Zimmerman (1986) emphasized the notion that political pressure could persuade firms' managers to adopt conservative accounting

choices. They continue that the majority of researchers who tested the political effect use the firm's size as a surrogate of a firm's political sensitivity. In the same way of thinking, prior studies indicate that the firm size is a crucial element which determines the value relevance of accounting information for different reasons; such as larger companies have more information available about them because they are the target of stakeholders, and they are less information asymmetry (Kang and Stulz, 1997; Covrig *et al.*, 2006 and Kim and Yoo, 2009). However, the conclusions are mixed (Hodgson and Clarke 2000; Ota, 2001; Bae and Jeong 2007; Brimble and Hodgson, 2007 and Chen and Zhang, 2007). Ota (2001) stated large companies have large book values and large earnings, therefore it is important to control the difference in size among companies. Because of the importance given to the effect of firm size on the value relevance of accounting information, the current study will control for this factor using the log of total assets.

## III. METHODOLOGY AND EMPIRICAL MODELS

### Constructing the Sample

The target population of the study is the listed companies in Egyptian stock exchange at the balance sheet date of the period 2007-2009. In an attempt to investigate the value relevance of accounting information under EASs, this period is right after the introduction of new version of Egyptian accounting standards of 2006 that depend on the IFRSs as the main source of origination. The annual reports of the most active Egyptian listed firms in Egyptian stock exchange are selected to represent the sample. Scans of the original Arabic language annual reports of the sample firms obtained through direct contact to Egyptian Capital Market authority.

Some of the sample's firms are deselected for different reasons. First, firms within the financial industry, i.e. banks and insurance companies ($n$ =31 ), because of nature of operations, the annual reports of these firms are prepared in accordance to additional reporting regulations (Abd-Elsalam and Weetman, 2003) and to a specific international accounting standard (e.g. IAS No.30). In this sense, the comparability quality of these firms to other non-financial industries is biased. Second, firms which changed the date of the balance sheet ($n = 2$), i.e. the financial statement were for a period less than one year, excluded as well. Third, the inaccessibility to full/part of data for some firms, i.e. share prices to calculate buy and hold return ($n = 30$). The number of firms used in the price model is consistent, i.e. 89 firms. Regarding the return model, the maximum sample in 2008 and 2009 contains 89 firms, and the minimum number is 88 firms in 2007.

*Empirical Models*
*The Price Model*

The model used to estimate the market value of firms in the current study complies with those ones followed by Collins *et al.*, (1997, 1999); that is specified as follows:

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 EPS_{i,t} + \varepsilon_{i,t} \ (1)$$

Where $P_{i,t}$ is Stock price per share for firm $i$, period $t$, three months after the date of balance sheet, $BVPS_{it}$ is the book value per share for firm $i$, period $t$, and $EPS_{it}$ is the earnings per share for firm $i$, period $t$.

The current study extends that model in order to investigate the pervasiveness of the accounting value of conservatism in the Egyptian context and their impact on companies' performance, an appropriate proxy for this value was firstly determined. The development of this proxy based on the essence of Basu's (1997) model that was constructed on the assumption that share prices lead the accounting earnings since they reflect all publicly available information other than current earnings. Therefore, a reverse regression was adopted where earnings, the lagging variable, are regressed on the current annual share returns, i.e. the leading variable. Basu 1997 incorporated a dummy variable in his employed model in order to segregate bad news from good news and, subsequently, allow slope coefficients and intercepts to differ between bad news and good news samples. According to Basu's model, the slope coefficient of the interactive variable $\beta_3$ is the indicator of the degree of conservatism, i.e. the higher the $\beta_3$ is, the higher the degree of accounting conservatism in the financial statements (See Appendix A).

In the same way of thinking, the current study uses a dummy variable to refer to the level of conservatism. In other words, the value of 1 is given to firm when its annual return is negative, i.e. conservative accounting practices are assumed and the value of 0 otherwise. The size of firm is controlled by using the log of total assets. To incorporate these two variables, the above equation is restated as follows:

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 EPS_{i,t} + \beta_3 Size + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where $P_{i,t}$ is Stock price per share for firm $i$, period $t$, three months after the date of balance sheet, $BVPS_{it}$ is the book value

per share for firm $i$, period $t$, and $EPS_{it}$ is the earnings per share for firm $i$, period $t$, Size is the log of total assets of firm $i$ at the end of year $t$, Consv is a dummy variable for level of conservatism; 1 when buy and hold return is negative ; 0 otherwise.

In addition to the components of Ohlson model, four explanatory variables replace EPS in equation (2) to investigate the value relevance of information in other financial statements, i.e. cash flow statement and change in stockholder equity statement. Those variables are earnings before interest and tax per share (EBITPS), operative cash flow per share (OCFPS), net cash flow per share (NCFPS), and dividends per share (DPS) as follows.

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 EBITPS_{i,t} + \beta_3 Size_{i,t} + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (3)$$

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 OCFPS_{i,t} + \beta_3 Size_{i,t} + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (4)$$

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 NCFPS_{i,t} + \beta_3 Size_{i,t} + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (5)$$

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 DPS_{i,t} + \beta_3 Size_{i,t} + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (6)$$

To investigate the value relevance of accruals compared to cash in the Egyptian context, a multivariate model used to regress the market value of firm on book value and earnings, i.e. accruals, and operative cash flow as follows:

$$P_{i,t+3} = \beta_0 + \beta_1 BVPS_{i,t} + \beta_2 EPS_{i,t} + \beta_3 OCSPS_{i,t} + \beta_4 Size_{i,t} + \beta_5 Consv_{i,t} + \varepsilon_{i,t} \quad (7)$$

*Return model*
When modelling returns earnings relationship, Easton and Harris (1991) criticised the book value of equity to

assess the relation between returns and accounting information, instead of book value they use earnings levels and earnings change to measure that relation.

$$R_{i,t} = \alpha + \beta_1 EPS_{it}/P_{it+1} + \beta_2 Size_{i,t} + \beta_3 Consv_{i,t} + \varepsilon_{i,t} \qquad (1)$$

$$R_{i,t} = \alpha + \beta_1 \Delta EPS_{it}/P_{it+1} + \beta_2 Size_{i,t} + \beta_3 Consv_{i,t} + \varepsilon_{i,t} \qquad (2)$$

$$R_{i,t} = \alpha + \beta_1 EPS_{it+1}/P_{it+1} + \beta_2 Size_{i,t} + \beta_3 consv_{i,t} + \varepsilon_{i,t} \qquad (3)$$

Where the $EPS_{it}$ is the level of annual earnings per share for firm $i$, period $t$, $\Delta EPS_{it}$ is the change of annual earnings per share, $EPS_{it}$ - $EPS_{t-1}$, Size is the log of total assets of firm i at the end of year t, Consv is a dummy variable for level of conservatism; 1 when buy and hold return is negative; 0 otherwise. It should be noted that the earnings per share was calculated after taking into account the effects of any share splits and large share dividends.

As in most of the literature, the previous explanatory variables are deflated by total assets or the market value at the beginning of the year to control for the problem of heteroscedasticity (Christie, 1987). The latter is used to scale the variables in the current study; $P_{it-1}$ is the price for firm $i$, period $_{t-1}$.

$$R_{i,t} = \alpha + \beta_1 EPS_{it}/P_{it+1} + \beta_2 \Delta EPS_{it}/P_{it+1} + \beta_3 Size_{i,t} + \beta_4 Consv_{i,t} + \varepsilon_{i,t} \quad (4)$$

To compare the results of the univariate models (equations (1), (2), (3)), the current study combined the earnings levels for the current year and the change of annual earnings as a multivariate model in equation (4).

Regarding return as dependent variable, four types of returns are used in the current study, namely cumulative return at the end of year t, Abnormal return for firm i for period t (cumulative return-

return for the EG index), Buy and hold return at the end of year t, and Abnormal buy and hold return for firm i for period t (buy and hold return- buy and hold return for the EG index). For more explanation of the calculations of those types of returns (See Appendix B).

In this regard, the current study regresses those types of return as calculated in equations in Appendix B on the earnings levels and change in earnings as in equations ((1), (2), (3), (4)).

## IV. RESULTS

*Descriptive Statistics*
The descriptive results for the independent and dependent variables used to test the price and return models are reported in table 1.

Table 1: Descriptive Statistics

| | Mean | Median | Min. | Max | Std. Deviation |
|---|---|---|---|---|---|
| P3 | 44.859 | 28.37 | 1.14 | 472.71 | 52.545 |
| EPS | 3.521 | 1.473 | -6.053 | 62.76 | 5.962 |
| BVPS | 19.328 | 12.024 | -13.291 | 365.828 | 31.714 |
| EBITPS | 4.52 | 2.032 | -16.686 | 87.031 | 8.822 |
| OCFPS | 3.436 | 1.435 | -10.629 | 34.055 | 6.224 |
| NCFPS | 0.646 | 0.099 | -23.526 | 58.357 | 5.784 |
| DPS | 2.919 | 0.52 | 0 | 291.236 | 17.952 |
| $CR_t$ | 1.058 | 0.354 | -1.885 | 15.705 | 2.438 |
| $AR_t$ | 0.977 | 0.234 | -1.465 | 16.083 | 2.367 |
| $B\&HR_t$ | 0.367 | 0.011 | -0.959 | 15.824 | 1.524 |
| $AB\&HR_t$ | 0.237 | -0.024 | -1.553 | 15.476 | 1.46 |
| $EPSt/P_{t-1}$ | 0.086 | 0.059 | -0.471 | 0.907 | 0.129 |
| $\Delta EPS/P_{t-1}$ | 0.037 | 0.002 | -0.721 | 4.695 | 0.329 |
| $EPSt-1/P_{t-1}$ | 0.049 | 0.064 | -4.427 | 0.459 | 0.31 |
| Size | 8.651 | 8.668 | 7.02 | 11.001 | 0.691 |

Notes: P3 is the Price of a firm i Share 3 months after date of balance sheet, EPS is Earnings per firm i share at the end of year t, BVPS is Book value per firm i share at the end of year t, EBITPS is Earnings before interest and taxes per firm i share at the end of year t, OCFPS is Operative cash flow per firm i share at the end of year t, NCFPS is Net cash flow per firm i share at the end of year t, DPS is Dividends per firm i share at the end of year t, CRt is Cumulative return at the end of year t, ARt is Abnormal return for firm i for period t (return- return for the EG index ), B&HRt is Buy and hold return at the end of year t, AB&HRt is Abnormal buy and hold return for firm i for period t (buy and hold return- buy and hold return for the EG index), EPS/ Pt-1 is Earnings per firm i share at the end of year t deflated by Opening Price of a firm i Share at the end of year t-1, ΔEPS/ Pt-1 is Change in earnings per firm i share from period t to t 1 deflated by Opening price of a firm i Share at the end of year t-1, EPSt-1/ Pt-1 is Earnings per firm i share at the end of year t-1 deflated by Opening price of a firm i Share at the end of year t-1. Size is the log of total assets of firm i at the end of year t.

The mean (median) of market, value over a three years period from 2007

to 2009, are Egyptian Pound 44.859 (28.37) with a range of (EP) 471.57 refer to a considerable variation among sample firms. The mean (median) of Earnings per share are EP 3.521 (1.473) with a range of EP 68.813. The mean (median) of book value per share are EP 19.328 (12.024) with a range of EP 379.119. All means of the variables are positive. The standard deviations of the components of the price model- different alternatives- are higher than those ones of the return model and the control variable of firm size. This variation confirms the variability of firm's size and industries traded on the Egyptian stock market.

*Bivariate Correlation Results*
The bivariate correlation results are shown in Table 2, panel A for price model's components and panel B for the return model's ones.

The upper right diagonal presents Pearson's correlation and lower left diagonal presents Spearman's correlation of variables used for price and return models. The results of the former model are illustrated in table 2 panel A and the results of the later model in panel B respectively. The Pearson's correlation and spearman's correlation are similar for components of price model; dependent variable shows positive significant correlations with all independent variables except with the net cash flow per share, dividends per share, the firm size and conservatism. The same positive significant correlation illustrated among the independent variable except those correlations between net cash flow per share on one hand and the remaining variables on the other, however, the variable shows significant positive correlation with the cash flow from operation and dividend per share. Considering Spearman's correlation, conservatism shows negative significant correlation with all variables, but, this correlation disappeared with net cash from operation, dividends per share and firm size. The results of firm size are fluctuated. Regarding the return model, the results of both correlation matrices show similar results, the correlations between the independent variables and dependent variable calculated as cumulative and abnormal returns show insignificant correlations with firm size and lagged earnings per share with different signs. Conservatism and firm size show fluctuated correlations with the other independent variables. The matrix of the

Table 2: (Panel A) Price Model: Bivariate correlations among independent and dependent variables

| | P3 | EPS | BVPS | EBITPS | OCFPS | NCFPS | DPS | Size | Consv |
|---|---|---|---|---|---|---|---|---|---|
| P3 | 1 | .407** | .225** | .291** | .316** | -0.048 | 0.062 | 0.009 | -0.298 |
| EPS | .651** | 1 | .659** | .875** | .401** | -0.017 | .258** | 0.254** | -0.045 |
| BVPS | .675** | .794** | 1 | .583** | .197** | .314** | 0.077 | 0.299** | -0.069 |
| EBITPS | .630** | .930** | .789** | 1 | .387** | 0.084 | .610** | 0.292** | -0.009 |
| OCFPS | .478** | .599** | .543** | .619** | 1 | .334** | .212** | 0.134* | -0.184** |
| NCFPS | 0.063 | 0.076 | 0.046 | 0.084 | .365** | 1 | .205** | 0.7 | -0.105 |
| DPS | .541** | .732** | .648** | .721** | .555** | 0.067 | 1 | 0.209** | -0.049 |
| Size | -0.076 | 0.197** | 0.117 | 0.190** | 0.138* | -0.077 | 0.200** | 1 | 0.073 |
| Consv | -0.355** | -0.142* | -0.144* | -0.167** | -0.210** | -0.115 | -0.091 | 0.078 | 1 |

Notes: **, * correlation is significant at 0.01 and 0.05 level respectively (two tailed). The upper right diagonal presents pearson's correlation and lower left diagonal presents Spearman's correlation of variables. P3 is the Price of a firm i Share 3 months after date of balance sheet, EPS is Earnings per firm i share at the end of year t, BVPS is Book value per firm i share at the end of year t, EBITPS is Earnings before interest and taxes per firm i share at the end of year t, OCFPS is Operative cash flow per firm i share at the end of year t, NCFPS is Net cash flow per firm i share at the end of year t, DPS is Dividends per firm i share at the end of year t, Size is the log of total assets of firm I at the end of year t. Consv is a dummy variable for level of conservatism; 1 when buy and hold return is negative ; 0 otherwise.

Table 2: (Panel B) Return Model: Bivariate correlations among independent and dependent variables

| | CRt | ACR | B&HR | AB&HR | $EPSt/P_{t-1}$ | $\Delta EPS/P_{t-1}$ | $EPS_{t-1}/P_{t-1}$ | Size | Consv |
|---|---|---|---|---|---|---|---|---|---|
| CRt | 1 | .981** | .430** | .368** | .375** | .228** | -0.085 | 0.007 | -0.330** |
| ACR | .811** | 1 | .384** | .374** | .347** | .215** | -0.084 | 0.017 | -0.279** |
| B&HR | .644** | .465** | 1 | .951** | .212** | .622** | -.571** | -0.173** | -0.478** |
| AB&HR | .293** | .496** | .656** | 1 | .188** | .638** | -.598** | -0.174** | -0.368** |
| $EPSt/P_{t-1}$ | .394** | .268** | .302** | .166** | 1 | .335** | 0.062 | 0.068 | -0.182** |
| $\Delta EPS/P_{t-1}$ | .221** | .169** | .213** | .219** | .485** | 1 | -.920** | -0.088 | -0.076 |
| $EPS_{t-1}/P_{t-1}$ | .221** | .123* | .125* | -0.013 | .587** | -.246** | 1 | 0.121* | 0.005 |
| Size | -0.107 | -0.096 | -0.148* | -0.187** | 0.068 | -0.079 | 0.185** | 1 | 0.073 |
| Consv | -0.513** | -0.398** | -0.865** | -0.529** | -0.228** | -0.144** | -0.095 | 0.078 | 1 |

Notes: **, * correlation is significant at 0.01 and 0.05 level respectively (two tailed). The upper right diagonal presents pearson's correlation and lower left diagonal presents Spearman's correlation of variables. CRt is Cumulative Return at the end of year t, ARt is Abnormal return for firm i for period t (return- return for the EG index ), B&HRt is Buy and hold return at the end of year t, AB&HRt is Abnormal buy and hold return for firm i for period t (buy and hold return- buy and hold return for the EG index), EPSt/ Pt-1 is Earnings per firm i share at the end of year t deflated by Opening Price of a firm i Share at the end of year t-1, ΔEPSt/ Pt-1 is Change in earnings per firm i share from period t to t-1 deflated by Opening Price of a firm i Share at the end of year t-1, EPSt-1/ Pt-1 is Earnings per firm i share at the end of year t-1 deflated by Opening Price of a firm i Share at the end of year t-1. Size is the log of total assets of firm i at the end of year t. Consv is a dummy variable for level of conservatism; 1 when buy and hold return is negative; 0 otherwise.

Pearson's correlations indicates to approximately similar relationships.

*Empirical Results of the Price Model*
Tables 3 to 8 present the results of price model in different multivariate regressions that address the original Ohlson model, i.e. book value and earnings. Then the swap made through replacing earnings by earnings before interest and tax, operative cash flow, net cash flow, and dividends. Finally, a multivariate model including the bottom line of balance sheet and income statement and operative cash flow is tested to investigate the value relevance of accruals against cash i.e. equations (2), (3), (4), (5), (6), and (7).

However, before interpreting the estimated coefficients of the explanatory variables of these models, it was important to make sure that the problem of multicollinearity is not threaten the results of those models, in this regards, the variance inflation factor (VIF) was inspected for these regression models to ensure that the problem of multicollinearity did not exist., the results indicate that the VIFs of the explanatory variables are below 10, indicating that the obtained results are not distorted by the well-known problem of multicollinearity (Gujarati, 2003).
All models used are significant at level 0.01, the book value per share, earnings per share, earnings per share before interest and tax, and dividends are significant at different levels. The adjusted $R^2$ for all models is high compared to similar studies in the emerging markets (Bae and Jeong, 2007 and Vazquez *et al.,* 2007). The $R^2$ is similar to those found in studies conducted in the developed countries (see for example Collins *et al.,* 1997); and higher than those conducted in emerging markets (Ragab and Omran, 2006;

**Table 3: Price Model: multiple regressions of market values on earnings & BV**

| Ohlson Model | | Constant | BVPS | EPS | Size | Consv | F-statistics | Adj $R^2$ % | No. |
|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 88.947 | -0.133 | 4.085 | -4.869 | -29.219 | | | |
| | T-Statistics | 2.436** | -1.107 | 6.512*** | -1.134 | -5.170*** | 22.174*** | 24.2 | 267 |
| 2007 | Coefficient | -4.142 | -0.296 | 6.343 | 7.23 | -43.446 | | | |
| | T-Statistics | -0.047 | -1.562 | 3.969*** | 0.69 | -3.110*** | 6.630*** | 20.4 | 89 |
| 2008 | Coefficient | 100.692 | -0.377 | 3.476 | -6.717 | -22.663 | | | |
| | T-Statistics | 2.747*** | -1.787* | 3.857*** | -1.525 | -3.347*** | 14.396*** | 37.8 | 89 |
| 2009 | Coefficient | 150.933 | 1.291 | 3.513 | -15.923 | -8.354 | | | |
| | T-Statistics | 3.556*** | 4.840*** | 3.599*** | -3.247*** | -1.206 | 31.868*** | 58.4 | 89 |

**Table 4: Price Model: multiple regressions of market values on book value & EBITP**

| Option1 | | Constant | BVPS | EBITPS | Size | Consv | F-statistics | Adj $R^2$ % | No. |
|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 94.973 | 0.116 | 1.596 | -5.247 | -30.024 | | | |
| | T-Statistics | 2.461** | 0.994 | 3.841*** | -1.156 | -5.064*** | 14.211*** | 16.6 | 267 |
| 2007 | Coefficient | -2.929 | -0.261 | 4.242 | 7.442 | -42.463 | | | |
| | T-Statistics | -0.032 | -1.334 | 3.196*** | 0.686 | -2.953*** | 5.095*** | 15.7 | 89 |
| 2008 | Coefficient | 75.723 | 0.278 | 0.321 | -3.411 | -27.692 | | | |
| | T-Statistics | 1.862* | 2.054** | 0.882 | -0.701 | -3.971 | 9.351*** | 27.5 | 89 |
| 2009 | Coefficient | 146.125 | 1.443 | 2.282 | -15.45 | -7.621 | | | |
| | T-Statistics | 3.298*** | 4.971*** | 2.448** | -3.018*** | -1.052 | 28.075*** | 55.2 | 89 |

**Table 5: Price Model: multiple regressions of market values on book value & OCFPS**

| Option2 | | Constant | BVPS | OCFPS | Size | Consv | F-statistics | Adj $R^2$ % | No. |
|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 83.062 | 0.296 | 2.068 | -4.543 | -24.831 | | | |
| | T-Statistics | 2.182** | 3.009*** | 4.225*** | -1.013 | -4.142*** | 15.103*** | 17.5 | 267 |
| 2007 | Coefficient | -33.152 | -0.099 | 2.142 | 11.894 | -41.764 | | | |
| | T-Statistics | 0.0353 | -0.508 | 1.483 | 1.058 | -2.772** | 2.876** | 7.9 | 89 |
| 2008 | Coefficient | 81.558 | 0.396 | 1.99 | -5.962 | -16.372 | | | |
| | T-Statistics | 2.404** | 4.823*** | 4.964*** | -1.449 | -2.486** | 17.894*** | 43.4 | 89 |
| 2009 | Coefficient | 155.96 | 1.862 | 0.466 | -16.672 | -9.189 | | | |
| | T-Statistics | 3.419*** | 7.342*** | 0.683 | -3.167*** | -1.217 | 25.061*** | 52.2 | 89 |

**Table 6: Price Model: multiple regressions of market values on book value & NCFPS**

| Option3 | | Constant | BVPS | NCFPS | Size | Consv | F-statistics | Adj $R^2$ % | No. |
|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 76.656 | 0.442 | -1.456 | -2.87 | -30.856 | | | |
| | T-Statistics | 1.977** | 4.252*** | -2.668** | -0.631 | -5.115*** | 12.012*** | 14.2 | 267 |
| 2007 | Coefficient | -59.684 | 0.456 | -4.05 | 15.111 | -47.912 | | | |
| | T-Statistics | -0.663 | 1.79* | -2.918*** | 1.411 | -3.283*** | 4.625*** | 14.1 | 89 |
| 2008 | Coefficient | 66.025 | 0.387 | 0.462 | -2.404 | -27.119 | | | |
| | T-Statistics | 1.720* | 3.994*** | 0.761 | -0.521 | -3.819*** | 9.279*** | 27.3 | 89 |
| 2009 | Coefficient | 165.705 | 1.979 | -0.462 | -17.772 | -10.6 | | | |
| | T-Statistics | 3.548*** | 9.646*** | -0.628 | -3.295*** | -1.426 | 25.022*** | 52.2 | 89 |

**Table 7: Price Model: multiple regressions of market values on book value & DPS**

| Option4 | | Constant | BVPS | DPS | Size | Consv | F-statistics | Adj $R^2$ % | No. |
|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 83.468 | 0.356 | 0.202 | -3.705 | -29.73 | | | |
| | T-Statistics | 2.093** | 3.556*** | .241* | -0.791 | -4.890*** | 10.360*** | 12.3 | 267 |
| 2007 | Coefficient | -35.698 | -0.223 | 7.781 | 11.813 | -45.62 | | | |
| | T-Statistics | -0.393 | -1.126 | 2.671*** | 0.121 | -3.116*** | 4.242*** | 12.8 | 89 |
| 2008 | Coefficient | 76.703 | 0.369 | 0.108 | -3.564 | -27.819 | | | |
| | T-Statistics | 1.913* | 3.990*** | 1.067 | -0.741 | -4.006*** | 9.480*** | 27.8 | 89 |
| 2009 | Coefficient | 170.179 | 1.465 | 3.846 | -18.082 | -10.49 | | | |
| | T-Statistics | 3.846*** | 5.121*** | 2.416** | .263*** | -1.461 | 27.99*** | 55.1 | 89 |

and Alfaraih and Alanezi, 2011). Book value in all models is in insignificant in 2007 and in the pool. This significance improved when non accruals measures used in the model, i.e. cash flow from operation, net cash flow and dividends. The accruals measures, i.e. earnings and earnings before interest and tax provide more value relevance over the non-accruals. However, the former is more relevant that the later.  The non-accruals

**Table 8: Price Model: multiple regressions of market values on book value, earning & OCFPS**

| | Alternative Model | Constant | BVPS | EPS | OCSPS | Size | Consv | F-statistics | Adj R² % | No. |
|---|---|---|---|---|---|---|---|---|---|---|
| Pool | Coefficient | 95.495 | 0.138 | 1.129 | 1.607 | -5.957 | -26.254 | 13.688*** | 19.3 | 267 |
| | T-Statistics | 2.515*** | 1.204 | 2.591*** | 3.116*** | -1.333 | -4.408*** | | | |
| 2007 | Coefficient | -8.249 | -0.301 | 7.213 | -1.289 | 7.846 | -44.401 | 5.405*** | 2 | 89 |
| | T-Statistics | -0.004 | -1.586 | 3.711*** | -0.79 | 0.758 | -3.159*** | | | |
| 2008 | Coefficient | 94.728 | 0.053 | 1.578 | 1.577 | -7.301 | -16.312 | 15.014*** | 44.3 | 89 |
| | T-Statistics | 2.727*** | 0.221 | 1.532 | 3.283*** | -1.749* | -2.497** | | | |
| 2009 | Coefficient | 151.579 | 1.309 | 3.56 | -0.12 | -15.99 | -8.589 | 25.208*** | 57.9 | 89 |
| | T-Statistics | 3.538*** | 4.586*** | 3.508*** | -0.181 | -3.233*** | -1.212 | | | |

Notes:    Significant at 1%,    Significant at 5%,    Significant at 10%. The table shows the results from multiple regressions of the relationship between the market values and earnings levels and book values. The model is based on the following equation $P_{i,t+3} = \beta_0 + \beta_1 \ BVPS_{i,t} + \beta_2 \ EPS_{i,t} + \beta_3 \ Size_{i,t} + \beta_4 \ Consv + \varepsilon_{i,t}$ where P3 is the Price of a firm i Share 3 months after date of balance sheet, BVPS is Book value per firm i share at the end of year t, EPS is Earnings per firm i share at the end of year t. Size is the log of total assets of firm i at the end of year t. Consv is a dummy variable for level of conservatism; 1 when buy and hold return is negative; 0 otherwise. No. is the number of observations in the regression.

measures provide fluctuated findings, however, dividends provides more value relevance than those provided by cash flow from operation and net cash flow. The firm size is insignificant close to introduction of the new version of EASs, i.e. 2007 and 2008; however, this significance improves within time. Findings of conservatism provide contrasted inferences, it significance starts negatively influential, but turned to be insignificant within time, i.e. 2009.

Regarding testing the study's hypotheses, Three important inferences may be captured from the models: first, it should be noted that, all Models are significant and $R^2$ is improving for all price model's alternatives, i.e. it starts small in 2007 and improved in the subsequent years which may support the effect of using accounting standards that depend on a source of Anglo-Saxon origination, i.e. IFRSs. Second, the value relevance of book value was insignificant in 2007, but it improved in the following years, this may support the H3 and it refers to that the influence of IFRSs starts to be fruitful. Third, the results of conservatism support the interpretation where it starts significant close to the date of

introduction of the new version of EASs, i.e. years 2007 and 2008 and turned to lose its significance in year 2009, however, it does not prevent the financial statements' bottom lines' to be value relevant.

*Empirical result of Return Model*
Tables 9 to 12 show the results of the return model in different panels to consider the effect of the earnings levels and change in earnings in addition to the effects of firm size and conservatism on the value relevance, i.e. equations (1), (2), (3), and (4).

Regarding equation (1) that illustrated in table (9), the level model where the earnings per share for firm i at the end of year t scaled by the opening price of firm $i$ at the end of year $t_{-1}$ used as explanatory variable, all panels provide highly significant results at 0.01. Adjusted $R^2$ for the model used is higher than its counterpart of Ragab and Omran (2006) that conducted in Egypt that provides very low $R^2$ for yearly returns and during the period 1998-2002. However, the current

**Table 9: Simple regressions of annual stock returns on deflated earnings levels**

| | 2007 | 2008 | 2009 | Pool |
|---|---|---|---|---|
| **Panel ( A )Dependent variable: R $_{i,t}$ (CR)** | | | | |
| Constant | 7.653 (3.392)*** | 1.501 (1.142) | -.3637 (-.993) | 2.557 (1.572) |
| EPSt-Pt-1 | .819 (.619) | 5.687 (5.671)*** | 13.878 (6.667)*** | 5.955 (5.910)*** |
| Size | -.745 (-2.823)*** | -.147 (-.926) | -.516 (-1.237) | -.171 (-.903) |
| Consv | -1.144(-2.943)*** | -.773 (-2.845)*** | -.041 (-.071) | -1.229 (-4.713)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 15.5 | 43.5 | 34.5 | 20.4 |
| F-statistics | 6.367*** | 23.689*** | 16.295*** | 23.656*** |
| **Panel (B) Dependent variable: R $_{i,t}$ (ACR)** | | | | |
| Constant | 6.943 (3.098)*** | 1.423 (1.182) | -3.482 (-.932) | 2.144 (1.321) |
| EPSt-Pt-1 | .674 (.513) | 4.860 (5.289)*** | 12.960 (6.103)*** | 5.439 (5.411)*** |
| Size | -.711(-2.714)*** | -.110 (-.760) | -.496 (-1.165) | -.141 (-.748) |
| Consv | -1.208 (-3.129)*** | -.594 (-2.383)** | -0.035 (-0.198) | -.971 (-3.733)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 15.9 | 38.5 | 30.3 | 15.9 |
| F-statistics | 6.534*** | 19.353*** | 13.618*** | 17.731*** |
| **Panel (C) Dependent variable: R $_{i,t}$ (B&HR)** | | | | |
| Constant | 8.584 (3.251)*** | 1.153 (2.045)** | .254 (.332) | 3.827 (3.722)*** |
| EPSt-Pt-1 | 2.210 (1.428) | 3.190 (7.419)*** | 1.029 (2.366)** | 1.683 (2.642) *** |
| Size | -.831 (-2.691)*** | -.132 (-1.939)* | -.029 (-.328) | -.344 (-2.880) |
| Consv | -1.843 (-4.052)*** | -.693 (-5.949)*** | -.800 (-6.544)*** | -1.338 (-8.113) *** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 22.3 | 66.1 | 39.3 | 25.9 |
| F-statistics | 9.430*** | 58.135*** | 19.765*** | 31.865*** |
| **Panel (D) Dependent variable: R $_{i,t}$ (AB&HR)** | | | | |
| Constant | 7.909 (2.967)*** | 1.373 (2.371)** | .069 (.076) | 3.438 (3.293)*** |
| EPSt-Pt-1 | 2.287 (1.464) | 2.861 (6.479)*** | .223 (.427) | 1.566 (2.421)** |
| Size | -.810 (-2.599)*** | -.112 (-1.600) | -.015 (-.147) | -.333 (-2.748) |
| Consv | -1.779 (-3.876)*** | -.595 (-4.967)*** | -.776 (-5.296)*** | -.960 (-8.735)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 20.9 | 58.6 | 24.6 | 16.5 |
| F-statistics | 8.770*** | 42.507*** | 10.446*** | 18.404*** |

| Table 10: Simple regressions of annual stock returns on deflated earnings changes | 2007 | 2008 | 2009 | Pool |
|---|---|---|---|---|
| **Panel (A) Dependent variable: R i,t (CR)** | | | | |
| Constant | 6.856 (3.265)*** | .510 (.363) | -5.777 (-1.291) | 1.804 (1.062) |
| ΔEPS/Pt-1 | 1.201 (3.789)*** | 4.265 (4.024)*** | 8.601 (2.946)*** | 1.444 (3.554)*** |
| Size | -.658 (-2.691)*** | -.043 (-.261) | -.920(-1.803) | -.018 (-.092) |
| Consv | -1.104 (-3.066)*** | -1.114 (-4.044)*** | -.644 (-.951) | -1.455 (-5.448)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 27.4 | 34.7 | 9.3 | 14 |
| F-statistics | 12.074*** | 16.600*** | 3.96*** | 15.321 *** |
| **Panel (B) Dependent variable: R i,t (ACR)** | | | | |
| Constant | 6.163 (2.954)*** | .558 (.450) | -5.528 (-1.241) | 1.445 (.858) |
| ΔEPS/Pt-1 | 1.184 (3.767)*** | 4.196 (4.485)*** | 8.147 (2.803)*** | 1.346 (3.344)*** |
| Size | -.628 (-2.583)*** | -.049 (-.334) | -.878 (-1.729) | -0.047 (-.273) |
| Consv | -1.168 (-3.263)*** | -.837 (-3.442)*** | -.560 (-.831) | -1.176 (-4.445)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 27.7 | 33.9 | 8 | 10.4 |
| F-statistics | 12.230*** | 16.037*** | 3.529*** | 11.204*** |
| **Panel (C) Dependent variable: R i,t (B&HR)** | | | | |
| Constant | 6.777 (3.660)*** | .594 (.952) | .107 (.132) | 2.699 (3.458)*** |
| ΔEPS/Pt-1 | 2.697 (9.668)*** | 2.489 (5.294)*** | .610 (1.150) | 2.699 (14.456)*** |
| Size | -.630 (-2.922)*** | -.026 (-.350) | -.057 (-.617) | -.211 (-2.333) |
| Consv | -1.757 (-6.293)*** | -.876 (-7.171)*** | -.845 (-6.862)*** | -1.297 (-10.576)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 62.1 | 58 | 36.2 | 57.7 |
| F-statistics | 49.121*** | 41.451*** | 17.485*** | 121.377*** |
| **Panel (D) Dependent variable: R i,t (AB&HR)** | | | | |
| Constant | 6.076 (3.261)*** | .863 (1.424) | 00 (00) | 2.316 (2.892)*** |
| ΔEPS/Pt-1 | 2.733 (9.743)*** | 2.482 (5.436 )*** | .221 (.357) | 2.692 (14.050)*** |
| Size | -.606 (-2.793)*** | -.018 (-.252) | -.026 (-.237) | -.202 (-2.182) |
| Consv | -1.692 (-5.296)*** | -.737 (-6.209)*** | -.783 (-5.435)*** | -.915 (-7.266)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 61.7 | 54.1 | 24.5 | 51.3 |
| F-statistics | 48.276*** | 35.574*** | 10.42*** | 94.02*** |

| Table 11:  Simple regressions of annual stock returns on deflated earnings levels | 2007 | 2008 | 2009 | Pool |
|---|---|---|---|---|
| **Panel (A) Dependent variable: R i,t (CR)** | | | | |
| Constant | 6.765 (3.218)*** | 1.042 (.676) | 3.798 (.947) | 2.116 (1.220) |
| $EPS_{t-1}/P_{t-1}$ | -1.258 (-3.797)*** | 2.111 (1.404) | 19.212 (5.572)*** | -.617(-1.403) |
| Size | -.635 (-2.590)*** | -0.041 (-.252) | -.388 (-.825) | -.041 (-.203) |
| Consv | -1.111 (-3.085)*** | -1.401 (-4895)*** | -.242 (-.393) | -1.522 (-5.603)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 27.4 | 24 | 26.9 | 10.5 |
| F-statistics | 12.071*** | 10.286*** | 11.673*** | 11.336*** |
| **Panel (B)Dependent variable: R i,t (ACR)** | | | | |
| Constant | 6.067 (2.908)*** | .857 (.612) | 3.399 (.835) | 1.728 (1.008) |
| $EPS_{t-1}/P_{t-1}$ | -1.249 (-3.801)*** | .850 (.623) | 17.743 (5.070)*** | -.021 (-.104) |
| Size | -.604 (-2.483)** | .046 (.272) | -.339 (-.710) | -.021 (-.104) |
| Consv | -1.174 (-3.286)*** | -1.166 (-4.488)*** | -.194 (-.311) | -1.239 (-4.614)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 27.9 | 18.6 | 23 | 7.2 |
| F-statistics | 12.333*** | 7.710*** | 9.655*** | 7.845*** |
| **Panel (C) Dependent variable: R i,t (B&HR)** | | | | |
| Constant | 6.592 (3.518)*** | .865 (1.198) | .820 (1.029) | 2.596 (3.225)*** |
| $EPS_{t-1}/P_{t-1}$ | -2.797 (-9.473)*** | 1.018 (1.446) | 1.471 (2.147)** | -2.752 (-13.490)*** |
| Size | -.580 (-2.655)*** | -.044 (-.507) | -.041 (-.435) | -.164 (-1.760) |
| Consv | -1.773 (-5.524)*** | -1.051 (-7.846)*** | -.813 (--6.656)*** | -1.430 (-11.342)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 61.3 | 45.4 | 38.6 | 55.1 |
| F-statistics | 47.498*** | 25.439*** | 19.237*** | 109.423*** |
| **Panel (D) Dependent variable: R i,t (AB&HR)** | | | | |
| Constant | 5.890 (3.120)*** | 1.035 (1.453) | .144 (.151) | 2.206 (2.687)*** |
| $EPS_{t-1}/P_{t-1}$ | -2.832 (-9.521)*** | .480 (.691) | .164 (.200) | -2.763 (-13.285)*** |
| Size | -.555 (-2.523)*** | -.019 (-.223) | -.008 (-.068) | -.155 (-1.627) |
| Consv | -1.709 (-5.286)*** | -.932(-7.047)*** | -.784 (-5.378)*** | -1.046 (-8.141)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 60.8 | 38.5 | 24.4 | 49 |
| F-statistics | 46.456*** | 19.355*** | 10.381*** | 85.764*** |

and even provide higher $R^2$ than those conducted in the developed and developing markets (Easton and Harris, 1991; Tomaszewski and Jermakowicz, 2001; Francis and Schipper, 1999; Chen *et al.*, 2001 and Hellstrom, 2006). The firm size is insignificant, but is negatively significant close to the introduction of EASs, but it loses its significance in as the time passes. Conservatism provides negative significant value relevant close to the introduction of EASs and this significance disappears when the familiarity to the standards enhanced, i.e. 2009. It should be noted that conservatism continues to be significant value relevant in both panel (C) and panel (D); this may be interpreted by the way followed by the current study to develop the proxy of conservatism.

When the Change in earnings per firm *i* share from period *t* to $t_{-1}$ deflated by opening price of a firm *i* Share at the end of year $t_{-1,}$ i.e. equation (2); table (10), is used as explanatory variable, the model is significant with in all panels at 0.01 level . These findings are consistent with prior studies. However, the adjusted $R^2$ for the first two panels are low, i.e. 14% and 10.4% respectively compared to the buy and hold panels where the $R^2$ 57.7 and 51.3 respectively. The previous finding may be interpreted by that the explanatory variable is more value relevant to the returns calculated as buy and hold than those returns calculated as cumulative ones. The results contradict those showed by Ragab and Omran (2006). Their results provide insignificant coefficients of the changes in EPS. The current study interprets that finding by that, investors in the Egyptian market

study finds that the explanatory variable in 2007 is insignificant in all panels. The former findings may be interpreted by that the efforts exerted to improve the quality of accounting information through the introduction of the new version of EASs are fruitful. The results are consistent with previous literature

**Table 12: Multiple regressions of annual stock returns on deflated earnings levels and Earnings changes**

| | 2007 | 2008 | 2009 | Pool |
|---|---|---|---|---|
| **Panel (A) Dependent variable: R i,t (CR)** | | | | |
| Constant | 6.797 (3.217)*** | 1.410 (1.056) | .018 (-.005) | 2.238 (1.374) |
| EPSt/Pt-1 | .636 (-.493) | 5.224 (3.674)*** | 20.614 (6.525)*** | 5.303 (4.976)*** |
| ΔEPS/Pt-1 | 1.250 (3.755)*** | .644 (.461) | 10.382 (-2.759)*** | .751 (1.817)* |
| Size | .645 (-2.611)*** | .133 (-.821) | -.028 (-.04) | -.131 (-.689) |
| Consv | -1.107 (-3.059)*** | -.776 (-2.839)*** | -.083 (-.146) | -1.227 (-4.725)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 26.8 | 43.1 | 39.3 | 21.1 |
| F-statistics | 9.036*** | 17.655*** | 15.086*** | 18.723*** |
| **Panel (B) Dependent variable: R i,t (ACR)** | | | | |
| Constant | 6.091 (2.904)*** | 1.191 (.982) | 0.202 (-.052) | 1.839 (1.131) |
| EPSt/Pt-1 | .774 (-.604) | 3.675 (2.845)*** | 19.066 (5.86)*** | 4.817 (4.528)*** |
| ΔEPS/Pt-1 | 1.244 (3.761)*** | 1.65 (1.300) | 9.411 (-2.428)** | .716 (1.736)* |
| Size | -.612 (-2.494)*** | -.075 (-.511) | -.053 (-.118) | -.103 (-.544) |
| Consv | -1.171 (-3.260)*** | -.599 (-2.414)** | -.112 (-.192) | -.969 (-3.739)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 27.1*** | 39 | 34.2 | 16.6 |
| F-statistics | 9.195*** | 15.056*** | 12.283*** | 14.154*** |
| **Panel (C) Dependent variable: R i,t (B&HR)** | | | | |
| Constant | 6.683 (3.599)*** | 1.075 (1.884)* | .546 (.669) | 2.637 (3.382)*** |
| EPSt/Pt-1 | 1.021 (-.900) | 2.793 (4.599)*** | 1.572 (2.295)** | .749 (-1.467)* |
| ΔEPS/Pt-1 | 2.776 (9.482)*** | .553 (.927) | -.837 (-1.026) | 2.797 (14.134)*** |
| Size | -.609 (-2.806)*** | -.120 (-1.734)* | -.011 (-.113) | -.195 (-2.147) |
| Consv | -1.761 (-5.536)*** | -.695 (-5.959)*** | -.790 (-6.444)*** | -1.330 (-10.692)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 62 | 66 | 39.3 | 57.9 |
| F-statistics | 36.96*** | 43.744*** | 15.096*** | 91.972*** |
| **Panel (D) Dependent variable: R i,t (AB&HR)** | | | | |
| Constant | 5.985 (3.203)*** | 1.232 (2.127)** | .055 (.056) | 2.245 (2.809)*** |
| EPSt/Pt-1 | .983 (-.861) | 2.146 (3.478)*** | .196 (.237) | .873 (-1.670)* |
| ΔEPS/Pt-1 | 2.810 (9.538)*** | .995 (1.641) | .041 (.042) | 2.806 (13.836)*** |
| Size | -.586 (-2.680)*** | -.090 (-1.286) | -.017 (-.150) | -.183 (-1.974) |
| Consv | -1.696 (-5.300)*** | -.598 (-5.043)*** | -.776 (-5.251)*** | -.952 (-7.471)*** |
| Number of Observations | 88 | 89 | 89 | 266 |
| Adjusted R² | 61.6 | 59.4 | 23.7 | 51.6 |
| F-statistics | 36.283*** | 33.189*** | 7.742*** | 71.695*** |

that: \*\*\*,\*\*, \* significant at 0.01, 0.05 and 0.1 level respectively. T statistics are shown between ...theses. The table shows the results of the level model based on the following equation  wh... respectively referring to (B&HR) is Buy and hold return at the end of year t, (AB&HR) is abno... ...nd hold return for firm i for period t (B&HR- B&HR for the EG index). EPS/ Pt-1 is Earnings per ... at the end of year t deflated by opening price of a firm i Share at the end of year t-1.ΔEPS/ Pt... ...ge in earnings per firm i share from period t to t-1 deflated by opening price of a firm i Share a... f year t-1. Size is the log of total assets of firm i at the end of year t. Consv is a dummy variabl... of conservatism; 1 when buy and hold return is negative; 0 otherwise. No. is the number of ... vations in the regression.

become more sophisticated than earlier time and there is improvement in the EASs make the accounting information of earnings more value relevance. The results of firm size are insignificant in all panels and the results of conservatism are similar to those provided in table (9).

When the prior earnings per share level, in Equation (3); table (11), is used as explanatory variable, the findings refer to that, the value relevance of the explanatory variable is fluctuated where it is significant in the buy and hold panels and insignificant in cumulative return panels, however, the overall models are significant at 0.01% level. The results in all panels are higher than those of Ragab and Omran (2006). The results of firm size are continuing insignificant

and the findings of conservatism are similar to those provided in tables (9) and (10). Table (12) shows the findings of multiple regressions of annual stock returns on deflated earnings level and earnings change. The aforementioned variables provide significant value relevance in pool, but the results are mixed within each individual year. It should be noted that, deflated earnings level provide more value relevance with returns calculated as cumulative returns, this vale relevance reversed towards the earnings change in panels (C) and (D) when the buy and hold return is used as dependent variable. The results of firm size are continuing insignificant and the findings of conservatism are similar to those provided in tables (9), (10) and (11).

Overall, The current and previous earnings levels provide approximately identical results however, the current earnings is considered more value relevance with exception given to the results of 2007. The individual earnings change, table (9), is value relevant in all panels with respect to the buy and hold panels in the year of 2009. To some extent, the current study refers to that the earnings levels and change in earnings could be used as substitutes.

The Ohlson model has been the topical subject in accounting literature during the last two decades. Although it is not an invention, as some authors claim that it is merely a new version of Residual Income Valuation, the debate surrounding the model suggests that it is worth attention. Earnings and book value are the two bottom lines of the financial statements which summarize the economic transactions of a firm. Before introducing the Ohlson model, accounting literature focuses strictly on the value relevance of earnings with little

attention to book value. The Ohlson model shows that both earnings and book value are value relevant and they add to each other in explaining market value. Not only is the linkage between earnings and book value a strong point of the Ohlson model but the linear information dynamics is another and is indeed its main advantage – the linkage between current information and future abnormal earnings (Beaver, 1999; Dechow *et al.,* 1999; Liu and Ohlson, 1999; Myers, 1999; Lo and Lys, 2000; Barth *et al.*, 2001; Ota, 2001; Ota, 2002 and Penman, 2004).

Abnormal earnings are derived from monopoly rents and conservatism, the latter being the main characteristics of most GAAPs all over the world, to some degree or other. This is supported by recent empirical evidence in the U.S. where the model was developed and also in non U.S. GAAP, which shows that book value and earnings are both important in explaining the market valuation of stocks. It is argued that the Ohlson model could be applied in a wide variety of GAAPs. Since earnings and book value are products of accounting measurement rules, it is likely that, due to differences in conservatism, asset valuation (historical costs versus current cost) culture effects and in tax law, the earnings number and book value number will have different value relevance in different markets, both for the investment decision makers in these markets and worldwide, where accounting differences as well as differences in market efficiency are playing an essential role in reflecting accounting information (Wild, 1992; Alford *et al*., 1993; Hall *et al*., 1994; Harris *et al.*, 1994; Joos and Lang, 1994; Collins, *et al*., 1997; Haw *et al.,* 2001; Tomaszewski and Jermakowicz, 2001; Ashbaugh and Olsson, 2002 and Subramanyam and Venkatachalam, 2007).

Lev (1989), argues that the higher the accounting quality, the higher the value relevance of accounting information measured by the association between the accounting numbers and market value. Hall *et al.* (1994) conclude that the more conservative the accounting system, the less earnings are used in making investment decisions. It is found that there are differences in value relevance across countries; earnings in countries which adopt the micro-based framework, i.e developed countries, are higher than in countries which adopt the macro-based framework, i.e less developed countries, with different levels of value relevance, but this cannot be generalised (Alford *et al.*, 1993; Harris *et al*., 1994 and Joos and Lang, 1994). By adopting capitalism and IASs/IFRSs, it is assumed that the value relevance of accounting information should follow the Anglo-Saxon framework. Traditionally, Egypt is in alignment with a macro-based framework (Samuels and Oliga, 1982; Ainajjar, 1986; Kantor *et al.,* 1995; Humphreys, 1996; HassabElnaby and Mosebach, 2005; Dahawy *et al.,* 2011). In other words, accounting conservatism leads to low value relevance of accounting information provided by EASs, Regarding this conflict it is assumed that Egypt lies between micro-based and macro-base frameworks. The current study addresses three hypotheses to investigate this conflict.

Lev (1989), *inter alia*, maintains that with differences in accounting systems, the accounting quality is questionable and it is difficult to distinguish between accounting and economic value added. Hall *et al.* (1994, p. 70) state that "Using differences in accounting practices to justify the valuation differentials across countries is essentially using accounting as a scapegoat for more fundamental structural differences."

## V.    CONCLUSION

The current study tried to investigate the usefulness of the bottom lines of financial statements for investment decisions in Egypt.  Direct test of value relevance of accounting information through operationalization of the price and return models, as Egypt historically has informational inefficiency. The current study focuses on the cultural perspective than the efficient market hypothesis one.   In an attempt to investigate this usefulness, the specifications of valuation models are researched i.e., earnings, book value, cash flows and dividends. Considering the effect of the tradition conservatism of the Egyptian environment and size of firms, the current study operationalizes the price and return model using a sample of the most active traded firms in the Egyptian Stock market in period from 2007 to 2009.  It is the period right after the promulgation of the new version of EASs.

The overall findings of the study regarding the price and return models support *H1: Financial statements' bottom lines are value relevance*.  However, in the price model, the bottom lines of the income statement and balance sheet, i.e. accruals has more explanatory power over cash flow statement information and change of stockholder equity statement, i.e. dividends in estimating the market value of those firms. In all Models  F-statistics are significant and $R^2$ is improving for all price model's alternatives, i.e. it starts small in 2007 and improved in the subsequent years which may support the effect of using accounting standards that depend on a source of Anglo-Saxon origination, i.e. IFRSs. Regarding the return model, current and previous earnings levels provide approximately identical results however, the current earnings is considered more value relevance and the individual earnings change is value relevant. A value relevance swap incurred between current earnings and earnings change when both are used simultaneously to estimate market value of firms.  The earnings levels and change in earnings could be used as substitutes.

Regarding the *H2 Conservatism does not prevent financial stalemates' bottom lines from being value relevant.* Two inferences are captured by the results, first, conservatism still alive in the Egyptian contest. However, its influence is diluted within time. it starts significant close to the date of introduction of the new version of EASs, i.e. years 2007 and 2008 and turned to lose its significance in year 2009. Second, conservatism does not prevent financial stalemates' bottom lines from being value relevant. All models included conservatism as explanatory variable are significant to estimate the market value of the most active firms of Egyptian Stock exchange. Regarding the *H3: The book value has dominant value relevance over other financial statements' bottom lines,* the results of the book value in the alternatives of the price model support this hypothesis.  The value relevance of book value was insignificant in 2007, but it improved in the following years, this may refer to that the influence of IFRSs starts to be influence the weight of value relevance given to book value at the expense of the other components because of emphasizing the fair value principle (FVP) over the historic cost principle and the ignorance of the conservatism principle as basic principles in the IFRS. Related to H3, size of firm is insignificant, pool results, related to estimation of market value of the study sample, however, there is negative significant value relevance when the book value –value relevance- improves. This inference illustrated in the price model, year 2009.

In the light of the above findings, the current paper contribute to the existing literature through investigating and operationalizing the value relevance of accounting information through the price and return model in an emerging market namely Egypt. The current paper considers the effect of the traditional conservatism practice in linkage to the promulgation of the new version of EASs that based on IFRSs that ignore that practice. However, the results should be interpreted within the limitations such as sources of accounting information other than accounting information, i.e. analyst's forecasts and controlling for other factor like industry and distress status should be investigated. Another cushion is emphasising period right after the introduction of EASs, i.e. 2007-2009. It is recommended to conduct further research expanding the time to include period before the promulgation of EASs of 2006. These limitations represent opportunities for further research in the Egyptian context.

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## Short Bio of Ahmed Abousamak

Ahmed Mohamed Abousamak is assistant professor of accounting in the department of accounting and Banking & Finance at College of Business Administration, Al Ain University of Science and Technology, United Arab Emirates; he earned his PhD in accounting and finance from The University of Birmingham, UK in 2005. He worked as lecturer of accounting for three years in the department of accounting and auditing, Suez Canal University, Egypt. His research interests are the utilization and processing of accounting information across cultures, and corporate Governance.

## Appendix A (Price Model)

Basu 1997

$$X_{it}/P_{it-1} = \beta_0 + \beta_1 DR_{it} + \beta_2 R_{it} + \beta_3 R_{it} * DR_{it} + \varepsilon_{it}$$

where;

$X_{it}$         :the earnings per share for firm $i$ in the fiscal year $t$.

$P_{it-1}$        : the market price per share for firm $i$ at the beginning of the fiscal year $t$.

$R_{it}$         :the annual share return of firm $i$ in the fiscal year $t$.

$DR_{it}$      : a dummy variable which takes the value of 1 if $R_{it} \prec 0$, and zero otherwise.

$\varepsilon_{it}$         : the regression residual.

## Appendix B (Return Model)

The calculation of annual return of firm $i$, period $t$ is computed as follows:

$$R_{i,t} = \frac{\{(P_{i,t} - P_{i,t-1}) + D_{i,t}\}}{P_{i,t-1}}$$
(I)

Where $P_{i,t}$ is the closing price of firm $i$ at period $t$, $P_{i,t-1}$ is the price of firm i at the time of $t-1$ and $D_{i,t}$ is the dividends received for firm $i$, period $t$. Because the calculation of return provides answers for different questions and illustrates different results (see for examples: Baraber and Lyon, 1997; Kothari and Warner 1997; Brav and Gompers, 1997; Lyon et al., 1999). In this regard, cumulative return (CR) and buy and hold return (B&HR) are calculated in equation (II) and equation (III) consecutively as follows:

$$CR_{i,s,e} = \sum_{t=s}^{e} R_{i,t}$$
(II)

Where $CR_{i,s,e}$ is cumulative return for firm i from the event month $s$ to the event month $e$, where $s$ is the start month, which refers to the month of December (June) prior to the date of the balance sheet and $e$ refers to the month of March (September) after the date of the balance sheet.

The current study computed the annual share returns for each company using the buy-and-hold strategy as it appears in the following equation:

$$B \& HR_{i,t} = \left[ \prod_{t=1}^{12} (1 + r_{i,t}) - 1 \right]$$

(III)

Where $r_{it}$ is the monthly return on firm $i$ in month $t$.

In addition to returns in equation (II) and Equation (III), the current study amends those figures by the EGX index to consider the economic effects that may lead to stock market variability as follows:

$$AR_{i,t} = R_{i,t} - R_{EGX,t}$$

(IV)

$AR_{i,t}$ is the annual abnormal return of firm $i$ period $t$, calculated as the raw return for a given firm minus the EGX index benchmark return.

In this regard the CAR and A&HR for each individual firm are calculated as follows:

$$CAR_{i,s,e} = \sum_{t=s}^{e} R_{i,t} - \sum_{t=s}^{e} R_{EGX,t}$$

(V)

$$AB\&HR_{i,t} = \left[ \prod_{t=1}^{T} (1 + R_{i,t}) - 1 \right] - \left[ \prod_{t=1}^{T} (1 + R_{EGX,t}) - 1 \right]$$

$T = 12$ \qquad (VI)