

## Do Conditional and Unconditional Conservatism Impact Earnings Quality and Stock Prices in Egypt?

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### Abstract

The purpose of this paper is to examine the impact of conditional and unconditional conservatism on earnings' quality and stock prices in Egyptian context and provide further insights on the effects of earnings' quality on stock prices. This paper follows the asymmetric timeliness of earnings measure of Basu (1997) with further extension to measure the effect of conditional and unconditional on the quality of earnings and stock prices. This study employs cross sectional data analysis and multiple regression using data available for a sample of the largest 30 Egyptian listed firms during the period of 2005 to 2009. The results suggest that (i) conditional conservatism negatively affects both earnings quality and stock prices of Egyptian firms, and (ii) unconditional conservatism does not affect earnings quality but has a negative association with stock prices of Egyptian firms. The findings of this study would help Egyptian accounting standards setters to recommend accounting choices and policies that lead to high quality of earnings and provide financial reports that rationalize investors' decisions. This study is the first to test the impact of both conditional and unconditional conservatism on earnings' quality and stock prices in Egyptian setting.

**Keywords:** Conservatism, conditional conservatism, unconditional conservatism, Earnings' quality, stock prices, Basu model, listed firms, Egyptian Stock Market, Egypt

### 1. Introduction

The quality of earnings figures is important to the financial markets. Investors value the firm and analysts make earnings forecasts and stock acquisition decisions based on earnings figures. In the past few years, the corporate fraud of Enron, Tyco and WorldCom call into question the reliability of reported earnings. Poor quality earnings provide distorted information to the financial markets that defraud investors and other stakeholders; therefore understanding the nature of accounting transactions and different attributes of earnings' quality is important.

Penman and Zhang (2002) use the term "quality of earnings" to refer to reported earnings before extraordinary items that are readily identified on the income statement. Earnings are of good quality if it is a good indicator of future earnings (sustainable earnings), consequently, when an accounting treatment produces unsustainable earnings, those unsustainable earnings deemed to be of poor quality. Empirical results suggest that quality concerns can also arise if firms follow conservative accounting consistently without any change in accounting methods or estimates.

Quite number of prior research discusses conservatism that has been used as a way of dealing with uncertainty to protect creditors against unwarranted distribution of the firm's assets as dividends. Accounting conservatism commonly defined as the differential verifiability required for recognition of profits versus losses (Watts, 2003), it acts as a constraint to the presentation of relevant and reliable accounting data. Conservatism hold that when choosing among two or more acceptable accounting techniques, some preference is shown for the option that has the lowest values of assets and revenues and

the highest values of liabilities and expenses. Therefore, conservatism dictates a general pessimistic attitude from the accountant when choosing accounting policies for financial reporting.

Several explanations are presented to justify the existence of conservatism and all of them coincide in highlighting that conservatism benefits the users of financial information. Watts (2003) states that explanations of exercising conservatism may be grouped in one of the following four categories:

- Contracting motivation,
- Tax optimizations,
- Litigation risk, and
- Asymmetries in the loss functions of regulators.

In this paper, we follow the classification of conservatism by Ball and Shivakumar (2005) into conditional and unconditional conservatism, where conditional conservatism means the application of accounting methods and policies that recognize bad news in earnings on a time basis than good news (ex-post or news dependent), while unconditional conservatism means the adoption of accounting methods and policies that reduce earnings and book value of net assets independent of economic news (ex-ante or news independent). Furthermore, conditional conservatism means that earnings recognize bad news more quickly than good news (Basu, 1997; Ball and Shivakumar, 2005; Beaver and Ryan, 2005).

Prior research have inconsistent results on the impact of conservatism on earnings' quality, while this impact is positive in some studies (Wu, 2010), it was negative in other studies (Penman and Zhang, 2002; Ball *et al.*, 2010). However, such results might confuse investors; for example, by making more conservative accounting choices, a firm faces mismatching between current period revenues and future period expenses, so that earnings become less persistent as conservative accounting affects not only the quality of numbers reported on the balance sheet, but also the quality of earnings reported on the income statement. Furthermore, when the firm increases investment, conservative accounting leads to reported earnings that are indeed lower than they would have been and this creates unrecorded reserves that provide managers with flexibility to report more income in the future.

A considerable amount of empirical studies have been carried out in developed markets to test the impact of conservatism on earnings and stock prices (for example, Penman and Zhang, 2002; Brief, 2002; Pae *et al.*, 2005; Beaver and Ryan, 2005; Jing, 2007; Lagor, 2008; and *Hosseini et al.*, 2010). There is lacking of empirical studies on this line of research on Egyptian practice, where this issue did not attract much attention of researchers. To the best of our knowledge, there is no comprehensive study in Egypt that has examined the concurrent impact of conditional and unconditional conservatism on earnings' quality and stock prices. Therefore, this study is the first to narrow this gap in literature on the Egyptian stock market.

This study differs from those discussed in prior literature (for example, Beaver and Ryan, 2005; and Lagor, 2008) in several points, first, it covers a new ground as it discusses the impact of the concurrent impact of conditional and unconditional conservatism on earnings' quality and stock prices in the emerging market of Egypt, second, it extends the asymmetric timeliness of earnings measure (Basu, 1997), where two ratios were added to the model; cash flow from operation to net income and the market to book ratio, to measure the effect of conditional and unconditional on earnings' quality and stock prices of a sample of Egyptian listed firms.

This paper is structured as follows: The next section provides a general overview of conservatism in Egyptian accounting, followed by reviewing of prior research in section three. Section four describes the research design after which data analysis and discussion of results are presented. Finally, conclusions, limitations, and directions for future research are put forth.

## **2. General Overview of Conservatism in Egyptian Accounting**

In the last twenty years, the Financial Accounting Standards Board (FASB) in the US issued standards on assets valuation that increased U.S. accounting conservatism in recent years. FASB (1980) statement of concepts No.2 attempts to justify this action by defining conservatism as a prudent reaction to uncertainty

try to insure that uncertainties and risks inherent in business situations are adequately considered (Watts, 2003).

A general interpretation of conservatism in accounting is articulated by the International Accounting Standard Board (IASB), which states that conservatism is "a degree of caution in the exercise of the judgment needed in making the estimates required under conditions of uncertainty such that assets or revenues are not overstated and liabilities or expenses are not understated".

Although there is no unified definition of conservatism, there have been several definitions of conservatism in the literature. For example, the first definition was stated by Bliss (1924), who defines conservatism as "anticipate no profit, but anticipate all losses" (Pae *et al.*, 2005). Basu (1997) views conservatism in cases where earnings reflect 'bad news' more quickly than 'good news'. Givoly and Hayn (2000) define conservatism as selecting accounting principles that minimize cumulative reported earnings by slower revenue recognition, faster expense recognition, lower asset valuation and higher liability valuation. Pae *et al.* (2005) refer to conservatism as the differential verifiability required for recognition of profits versus losses, this definition means that there is a higher degree of verification required for recognizing good news as gains than for bad news as losses. Under current GAAP, conservatism applies to measurement of assets and recognition of revenues and expenses; it tends to lead accountants to choose accounting methods in favor of slower recognition of income and lower valuation of net assets (Chen *et al.* 2004).

However, accounting conservatism might be classified into two different pairs of terminologies. For example, Ball *et al.* (2000) classify conservatism into income statement and balance sheet conservatism, while Pope and Walker (1999) refer to the two types as ex-post and ex-ante conservatism. Chandra *et al.* (2004) refer to the two types of conservatism as news dependent and news independent conservatism. Ball and Shivakumar (2005) use the terms conditional and unconditional conservatism and this paper follows this categorization.

Egypt has many significant differences from other developed markets since it is classified within the emerging Middle East accounting regime, where many social and cultural aspects affecting accounting policies and choices. According to HassabElnaby and Mosebach (2005), the development stages that Egypt experienced can be divided into five stages; the colonial period, central planning, slow development (from 1978 to 1985), moderate development (1986-1990), and rapid development (since 1991). Transforming an economy from a centrally planned one to another that is market-based is a long term process that requires several changes in a society's philosophy as well as its economic sectors (HassabElnaby *et al.* 2003).

Currently, the Egyptian accounting setting can be characterized by moderate financial accounting conformity, moderate use of accruals, high importance of the capital market and moderate compliance with corporate governance regulations. Egypt has witnessed a rapid development phase since 1991 and became a market-based economy which requires development of accounting standards as well to help investors in financial performance analysis as it provides relevant information based on maintained reliable financial reporting (HassabElnaby *et al.*, 2003). Moreover, since Egypt is heavily dependent upon foreign investments after increased privatization trends, accounting information plays a more important role in the economy. Egyptian companies were adopted the International Accounting Standards (Abdelsalam and Weetman, 2003), which are officially issued in English.

The main reporting language in Egypt is Arabic, and at the time of introducing and implementing the International Accounting Standards, no official Arabic translation was available in public records in Egypt. Thus, firms found it difficult to understand the English language version of the International Accounting Standards. Consequently, disclosure in the financial statements of companies was significantly inadequate. The problem remained until the end of 2002, where the International Accounting Standards Board's website reported a translation produced by the Arab Society of Certified Accountants, based in Jordan (Abdelsalam and Weetman, 2003). Numerous efforts were exerted by the Egyptian Society of Accountants and Auditors (ESAA) that ended up with the first set of Egyptian Accounting Standards (EAS) in 1997 based on the International Accounting Standards. By the end of 2002, there were twenty two EAS that should be implemented by listed firms, which are based on the International Accounting Standards. In 2006, an entire set of EAS were released to replace those of 1997 and 2002. The complete set of the new

EAS comprising thirty nine standards are based on the International Accounting Standards, with the exception of four standards; EAS 1, 10, 19, and 20 representing financial statements presentation, fixed assets and depreciation, disclosure in financial statements of banks and similar financial entities, and rules and accounting standards related to finance lease transactions respectively (EAS, 243/2006).

Furthermore, in Egypt, cultural factors affecting accounting practices of firms. Hofstede (1984) identified four dimensions representing the structured elements in cultural system; individualism versus collectivism, large versus small power distance, strong versus weak uncertainty avoidance, and masculinity versus femininity. Hofstede scores Egypt in respect to the four dimensions as follows: high uncertainty avoidance, low individualism, large power distance, and masculinity. Brown and Humphreys (1995) and Humphreys (1996) examined Hofstede's cultural aspects for both Egyptian and Anglo-American managers. Findings indicate that Egyptians tend to avoid uncertainty to a great extent, are more willing to accept power distance, and collectivistic. Egyptians enjoy a separation between traditional gender roles; hence reflecting a masculine society.

Being more specific, Egyptian accounting systems and standards adopt the historic accounting principle for the valuation of fixed assets, liabilities, revenues and expenses with the application of fair value accounting for evaluation of financial instruments and biological assets. The main consequence of the historical cost principle is that the financial statements and the balance sheet especially, do not present the fair value of the firm's assets.

Almost all studies examining disclosure practices in the Egyptian context find a low disclosure level (Abdelsalam and Weetman, 2003; Hassan *et al.*, 2006; Abdelsalam and Weetman, 2007; Dahawy and Conover, 2007; and Hassan *et al.*, 2009). Ismail and Shehata (forthcoming) investigate reasons beyond low level of mandatory disclosure in annual reports and conclude that secretive culture is the major reason behind the low disclosure practices found in Egypt overcoming the efforts exerted by regulators. They concluded that the reasons that lead to the low disclosure level in Egypt are (i) presence of uniform, secretive, and conservative accounting practices, (ii) absence of a unified law governing Egyptian firms' activities and transactions, (iii) and lack of strict enforcements imposed by the Egyptian Capital Market Authority on non complying firms to comply with the mandatory requirements of the Egyptian accounting standards.

To conclude, accounting conservatism in Egyptian practice is justified on the ground that some features as (i) high uncertainty avoidance, (ii) large power distance, (iii) preference for individualism, and (iv) a masculine attitude, are characteristics that drive accounting values to be uniform, secretive, and conservative. The Egyptian accounting system can be characterized as conservative and tax oriented. This means that losses and expenses are realized immediately in the financial statements, even if they are not accrued but the relative provision has been made, while profits are incorporated into the financial statements when they occur. Thus, conservatism of income recognition is one of the major features of the Egyptian accounting practice that worth further investigation to pinpoint its impact on earnings quality and stock prices.

### 3. Literature Review

In the literature, different aspects of conservatism and its impact on firms have been discussed widely with evidence from developed markets. Among of issues discussed are: accounting conservatism and cost of debt (Ahmed *et al.*, 2000), board of directors' characteristics and accounting conservatism (Beekes *et al.*, 2004; Manuel *et al.*, 2007), conservative in accounting and earnings quality (Brief, 2002), conservatism in financial reporting and the Sarbanes Oxley Act (Gerald and Zhou, 2006), managerial ownership and accounting conservatism (Lafond and Roychowdury, 2008), the economic determinants of conditional conservatism (Lara *et al.*, 2008), accounting conservatism and corporate governance (Lara *et al.*, 2009), debt contracting efficiency of accounting conservatism (Li, 2008), the role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividend policy (Ahmed *et al.*, 2002), the link between earning conservatism and the price-to-book ratio (Pae *et al.*, 2005), accounting conservatism, the quality of earnings and stock returns (Penman and Zhang, 2002), conservative accounting and equity valuation

(Zhang, 2000), accounting conservatism and its benefits to shareholders (Wu, 2010), accounting conservatism and the cost of equity capital (Ann *et al.*, 2009).

However, very little literature studied the relation between conditional and unconditional conservatism and earnings' quality and stock prices. For example, Beaver and Ryan (2005) and Lagor (2008) are among the first to test the impact of conditional and unconditional conservatism of financial reporting.

Penman and Zhang (2002) show empirically that conservative accounting can yield lower quality earnings and that stock market does not appear to price the lower quality earnings appropriately. The findings revealed that conservative accounting with investment growth depresses earnings and accounting rates of return and creates hidden reserves. Additionally, slowing of investment releases hidden reserves and creates earnings and higher rates of return.

Beaver and Ryan (2005) develop a model that captures the distinct natures of and interactions between conditional and unconditional conservatism. Results reveal that under unconditional conservatism, the book value of net assets is understated due to predetermined aspects of the accounting process. Under conditional conservatism, book value is written down under sufficiently adverse circumstances, but not up under favorable circumstances. Furthermore, unconditional conservatism and other factors preempt conditional conservatism and so affect the asymmetric response of earnings to positive and negative share returns, both current and lagged.

Jing (2007) examines the relationship between earnings quality measured by a set of seven attributes: accrual quality, persistence, predictability, smoothness, value relevance, timeliness and conservatism and stock price synchronicity. In addition he examines whether the relation between earnings quality and stock price synchronicity is stronger or weaker. Results reveal that that the higher (lower) earnings' quality is associated with lower (higher) stock price synchronicity. This evidence suggests that earnings quality matters in the information incorporation process.

Lagor (2008) examines whether firms report more conservatively in the three years following a restatement announcement, and whether an increase in conservatism is related to the extent of debt and compensation contracts. The results suggest that restating firms significantly increase conditional conservatism in the three year period following the restatement announcement year. In addition, both the level and change in conditional conservatism following a restatement is greater for firms where debt and compensation contracting are more important.

Hossein *et al.* (2010) examine the effect of accounting conservatism on earnings persistence and pricing multiple on earnings. The study hypothesizes that more conservative earnings are less persistent than less conservative earnings as well as the pricing multiple on more conservative earnings is smaller than that on less conservative earnings. Base on sample of 88 listed companies in Tehran stock exchange during the period of 1998-2007, the findings suggest more conservative earnings are less persistent than less conservative earnings and the pricing multiple on more conservative earnings is smaller than that on less conservative earnings.

Wu (2010) examines the extent to which conservative accounting affecting shareholder value. He finds that there is a positive association between conservatism and cumulative stock returns during the current financial crisis. The results provide supportive evidence to the positive accounting theory that conservatism is an efficient governance mechanism to mitigate information risk and control for agency problems, and shareholders benefit from it.

Zhu and Xia (2011) examine the market reaction in China during the reform from the perspective of accounting conservatism. Results reveal that accounting information plays its role on stock pricing through the reform of split-stock reform in the China securities market, evident in the significantly positive relation between the proxies of accounting conservatism and cumulative abnormal returns for one day, three days, ten days and 30 days around re-open day after the reform. Also, the profitability of listed firms in the past will further improve the positive relation between conservatism and market reaction.

On the basis of reviewing the literature, the challenge to the accounting professionals on the issue of understanding the impact of the conditional and unconditional conservatism on earnings' quality and stock

prices represent one of the dilemmas that face accountants in both developed and emerging markets. This paper sheds light on this issue in Egyptian settings, where this area of research still needs further investigation.

#### 4. Research Design

##### 4.1 Research question

To supplement the academia and literature discussed above, this study extends Basu (1997) model to account for both conditional and unconditional conservatism and its impact on earnings' quality and stock prices in Egypt. Therefore, the research questions are:

*RQ1. What are the impacts, if any, of conditional and unconditional conservatism on earnings quality in Egypt?*

*RQ2. What are the effects of changes in earnings' quality on stock prices in the Egyptian stock market?*

##### 4.2 Hypotheses development

This study tests the impact of the conditional and unconditional conservatism on earnings' quality and stock prices in the Egyptian stock market. Hence, the following hypotheses are formulated:

*H<sub>1</sub>: Earnings' quality has a negative relationship with conditional conservatism.*

*H<sub>2</sub>: Earnings' quality has a positive relationship with unconditional conservatism.*

*H<sub>3</sub>: Stock prices have a negative relationship with conditional conservatism.*

*H<sub>4</sub>: Stock prices have a positive relationship with unconditional conservatism.*

##### 4.3 The Study Model

There are many measures that have been used in empirical research to rate the degree of accounting conservatism and/or test theories and hypotheses concerning conservatism. One of the interesting features of the accounting conservatism literature is the variety of measures used and lack of consistent results. Measures of conservatism that have been widely discussed and used in the literature are:

- Basu's (1997) asymmetric timeliness measure,
- Givoly and Hayn's (2000) negative accruals measure.
- Penman and Zhang's (2002) hidden reserves measure, and
- Ball and Shivakumar's (2005) asymmetric cash flow-to-accruals measure.

Wang *et al.* (2009) have analyzed prior studies on conservatism to rate the measure that is widely used and they concluded that the asymmetric timeliness measure of Basu (1997) was the dominant measure across the majority of prior work done in this area.

This study follows the asymmetric timeliness of earnings measure (AT) of Basu (1997) to test the hypotheses. Using Basu model can be justified on the ground that (i) this measure is the most frequently used measure of conservatism in majority of the previous studies, (ii) prior research based on AT measure have empirical results that are consistent with predictive ones, hence shedding the light on model reliability, and (iii) results of the model can be used to explain the effect of adopting conservatism on stock prices as well as finding a relationship, if any, between conditional conservatism and stock prices.

Conditional conservatism is measured using the Basu (1997) regression model, which regresses earnings on returns and allows the return coefficient to vary with the sign of the return. Basu (1997) measures conservatism by the extent to which earnings reflect bad news more quickly than good news. Good news and bad news are characterized based on the sign of the firm's stock return (which proxies for economic news). According to Basu's measure, the greater the asymmetric timeliness, the greater is the degree of conservatism in a firm. The difference in timeliness between good and bad news is captured by  $\delta_3$  in the following regression equation (1):

$$\frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \mathcal{E}_{it} \quad (1)$$

Where  $EPS_{it}$  is the earnings per share before extraordinary items for firm  $i$  in year  $t$ ,  $P_{it}$  is opening stock market price for firm  $i$  in year  $t$ ,  $RET_{it}$  is the stock market return in year  $t$ , and  $DR_{it}$  is a dummy variable equal to one if  $RET_{it}$  is negative and zero otherwise. If bad news is recognized in a more timely fashion than good news,  $\delta_3$  will be greater than zero ( $\delta_3 > 0$ ).

However, the Basu (1997) measure does not account for the impact of conservatism on earnings' quality, therefore, we extend the measure capabilities to include a variable; cash flow from operation to net income ratio ( $CFO_{it}/NI_{it}$ ) as a proxy of earnings quality, to test the impact of conservatism on earnings' quality, hence the resulting measure can be expressed in the following regression equation (2):

$$\frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} + \mathcal{E}_{it} \quad (2)$$

Furthermore, the regression equation (2) is developed to measure conditional conservatism and to test its relationship with earnings' quality and stock prices, hence, the model is extended by inserting the market to book ratio ( $MTB_{it}$ , calculated as the market value divided by the book value of firm  $i$ , at the end of year  $t$ ) to measure the unconditional conservatism. The extended version of the Basu model is expressed by the following regression equation (3):

$$\frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} + \delta_5 MTB_{it} + \mathcal{E}_{it} \quad (3)$$

The basic model is based on the assumption that earnings will reflect "bad news" more quickly than "good news". According to Basu's measure, the greater the asymmetric timeliness, the greater is the degree of conservatism in a firm. We follow Basu (1997)' approach by regressing accounting earnings  $EPS_{it}/P_{it}$  on stock returns  $RET_{it}$  separately for good news and bad news firm years. A firm year is deemed as good news firm year, if its market return is positive or zero, i.e.  $RET_{it} \geq 0$ . A firm year is deemed as bad news firm year, if its stock returns is negative, i.e.  $RET_{it} < 0$ . The estimated slope coefficient measures how timely the news embodied in the stock return is recognized in earnings; conditional on the sign of the news. The dummy variable  $DR_{it}$  is used to separate good news from bad news, which allows the slope coefficients to differ between these two groups. It should be noted that  $\delta_3$  is the asymmetric timeliness coefficient and is the primary indicator of accounting conservatism in the Basu model. The greater  $\delta_3$ , the higher the degree of conditional conservatism. Furthermore, the study regresses market-to-book ratio  $MTB_{it}$  and the firm dummy variables on the stock returns for a period five years. The estimated coefficient of each firm's dummy captures the persistent portion of the difference between the firm's book and market values of equity, the higher the coefficient, the more the unconditional conservatism practices exist

#### 4.4 Data collection

The study is based on data from a sample of the largest 30 Egyptian companies listed on the stock market as of the year 2005 based on market capitalization. Data are collected over a period of five years during the years 2005 to 2009, where part of data are collected from firms annual reports at year end and the rest are from the information available in annual manuals issued by the Egyptian Capital Authority Market.

### 5. Data Analysis and Discussion of Results

This study uses the multiple regression analysis to examine the relationship between conditional and unconditional conservatism and earnings' quality and stock pieces. The model parameters were estimated, where we regress earning per share; the dependent variable, which reflects more timely information for bad news firms, resulted in a higher predicted  $R^2$  of the sample firms. The slope coefficient  $\delta_3$  is predicted to be greater for the bad news because earnings are predicted to be more sensitive to negative returns than positive returns.

Panel (A) of table 1 presents cross sectional regression results of the entire sample firms, where the slope coefficient on returns  $\delta_3$  is 0.244,  $R^2$  is 9.99 % and the adjusted  $R^2$  is 9.77%. The difference between  $R$  and  $R^2$  is 1.3%<sup>(1)</sup>. This shrinkage means that if the total population was used rather than a sample to estimate the model parameters it would account for approximately 1.3 % less variance in the outcome.

Panel (B) of table 1 shows the classifications of firms years observations into good news and bad news firms based on whether the return  $RET_{it}$  was negative or positive; where the dummy variable  $DR_{it}$  is equal to one if  $RET_{it}$  is negative and zero otherwise. The dummy variables capture the intercept and slope effects of the negative return sample. The interactive slope coefficient  $\delta_3$ , measures the differences in sensitivity of earnings to negative and positive returns is significant, and implies that earnings is sensitive to negative returns as 5.69 times  $[(0.052 + 0.0244) / 0.052]$  as compared with its sensitivity to positive returns. Adjusted  $R^2$  resulting from separation of regressions on the two samples, firms with positive returns and those of negative returns, indicates that the explanatory power of negative returns (7.7%; 16 firms) is greater than those of positive returns (3.05%; 14 firms).

We extend Basu (1997) model and inserting the variable  $CFO_{it}/NI_{it}$ , to test the impact of conservatism on earnings' quality. Equation (2) was checked empirically through a linear regression, estimated by OLS. The regression results of each firm are shown in table 2, where it reveal that some firms having  $P$ -value  $> 0.05$ , which indicate that the quality of earnings of such firms do not affected by the conservatism policies, hence these firms are to be isolated from the analysis. Furthermore, it can be noted from table 2 that 14 firms have been affected by bad news, where  $DR_{it}=1$ ; and results of some other firms (16 firms) have been affected by good news, where  $DR_{it}=0$ .

To test the effect of the news on the earnings and stock prices of each firm, the sample firms on table 2 are stratified into those firms affected by good news ( $DR_{it}=0$ ) and other firms that have been affected by bad news ( $DR_{it}=1$ ), consequently, we can define firms that follow conditional or unconditional conservatism; where firms tend to exercise conditional conservatism in cases of facing bad news, as conditional conservatism coefficient  $\delta_3$  reflects bad news in earnings more quickly than good news. This interpretation implies systematic differences between bad news and good news periods in the timeliness and earnings.

The stratified process resulting in 14 companies whom affected by good news as shown in table 3, where Sinai Cement firm has the highest  $R^2$  (78.3%) and  $P$ -value of 0.046; which indicates that earnings quality of that firm has been affected by conservatism. The same effect is hold belongs to some other firms as MobiNil, Misr Cement, Misr Chemical, and Oriental Weavers. Results reveal that other firms' earnings' quality do not affected by conservatism.

To measure the extent to which unconditional conservatism exists in the sample firms and to investigate the relationship between unconditional conservatism and both stock prices and earnings' quality, we add one more variable to the model;  $MTB_{it}$ . When  $DR_{it}=0$ , the regression model used to carry out this test are expressed by equation (3). Table 4 shows the regression analysis of the companies where  $DR_{it}=0$  after adding  $MTB_{it}$  and excluding non-significant firms. The results reveal that 9 out of 14 firms affected by good news and those firms are adopting unconditional conservatism, hence, when  $DR=0$ , then the stock market return  $RET$  in the model will equal to zero; which means that the news is excluded from the model or in other words<sup>ii</sup>, these firms are not affected by the news. Such results are consistent with those were derived from reviewing of literature, where unconditional conservatism is not affected by the news.

Furthermore, table 4 indicates that Sinai Cement Company and Ezz- Steel company have the highest  $R^2$  (95.3% and 93.3% respectively), which means that about 95.3% and 93.3% of the explanatory variables of the regression model explain the change in the dependent variable  $EPS_{it}/P_{it}$  or , in other words, it means that the independent variables of the model explain 95.3% and 93.3%, respectively, of total variation in dependent variable; the earnings quality, and the rest percent is due to random errors of the regression model.

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<sup>(1)</sup>  $(.99 - .977) = 0.013 = 1.3\%$



On the other hand, it was found that there were 16 firms that face bad news which affect transactions and operations, where  $DR_{it}=1$ , out of the 16 firms, 3 firms are non-significant, and the rest 13 firms are significant, where  $P\text{-value} < 0.05$ . Table 5 shows the significant firms. Results of table 5 reveal that Export bank and Misr Beni Suef Cement company have the highest  $R^2$  (99% and 99.1% respectively), which means that about 99% of the explanatory variables explain the change in the dependent variable, or in other words, about 99% of the change in  $\delta_3$  explains the change in earning quality, whereas the rest percentage was due to random error of the regression model.

In the light of the above analysis, a decision on the research hypotheses can be made, where we hypothesize that conditional conservatism leads to lower earnings' quality, based on the ratio of cash flow from operation to net income  $CFO_{it}/NI_{it}$ . The results reveal that the higher the asymmetric timeliness of earnings  $\delta_3$ , the lower the ratio of cash flow from operation to net income, hence, the first hypothesis is accepted; i.e., earnings' quality has a negative relationship with conditional conservatism. Such results are consistent with those of Penman and Zhang (2002) and Ball *et al.* (2010).

The second hypothesis refers to the impact of unconditional conservatism, where it was expected to lead to higher quality earnings. The results of statistical analysis suggest that there is no significant relationship between the market to book ratio, as a measure of unconditional conservatism practices, and the ratio of cash flow from operation to net income. This lead to the conclusion that unconditional conservatism practices do not affect the quality of earnings, hence, the second hypothesis is rejected.

The third hypothesis states that stock prices decrease in cases of conditional conservatism. Results of the statistical analysis reveal that the greater the asymmetric timeliness of earnings  $\delta_3$ , the lower the stock prices, hence the results lead to supporting the third hypothesis, where stock prices have a negative relationship with conditional conservatism. Our results are supported by Jing (2007) who reported that negative association between earnings' quality and stock price.

The fourth hypothesis refers to the expected positive relationship between unconditional conservatism and stock prices. Results reveal that there is a negative significant relationship between unconditional conservatism and stock prices in the firms adopted unconditional conservatism, which means that adopting unconditional conservative policies negatively affect stock prices, hence, this lead to the rejection of the fourth hypothesis.

It can be noted that the negative relation between unconditional conservatism and stock prices in emerging market of Egypt might be explained on the ground that: (i) stock prices may be affected by some other endogenous and exogenous factors, and (ii) stock prices affected mainly by the economic news whether good or bad news, while the main feature of unconditional conservatism is that it is not affected by any economic news.

## 6. Conclusions, limitations, and directions for future research

This study investigates the impact of conditional and unconditional conservatism practices on the quality of earnings reported on the financial statement as well as stock prices of a sample of listed firms in Egyptian Stock Market. In efficient markets as Egypt, stock returns symmetrically and quickly reflect all publicly available news. The greater timeliness of earnings for bad news implies that earnings is more sensitive to negative returns than positive returns as measured by the slope coefficient and  $R^2$  from a regression of earnings on returns. In emerging market of Egypt, the results suggest that under conditional conservatism, the sensitivity of earnings to negative returns is about 5.69 times the sensitivity of earnings to positive returns.

The main conclusions of this study on a sample of Egyptian listed firms are that: (i) all the firms subject to the analysis follow conservative accounting policies and practices such as lower of cost or market value for inventory valuation, recognition of impairment losses on assets, expensing certain intangible expenditures including research and development and advertising, and accelerated depreciation methods, (ii) earnings' quality and stock prices have negative relationships with conditional conservatism, (iii) there is no

significant relationship between unconditional conservatism and earnings' quality, and (iv) there is a negative significant relationship between unconditional conservatism and stock prices. The results of this paper pave the way of Egyptian accounting standards setters to improve the integrity of financial reporting based on accounting policies that consider the quality of earnings and reflect stock prices in financial markets.

As is the case with all studies, this one has limitations. Firstly, survey results restrict generalization, as the sampling design cannot be claimed to represent all Egyptian listed firms. Secondly, the model used to measure the two types of conservatism; conditional and unconditional conservatism, based on how well the measures capture the two types of conservatism. Givoly *et al.* (2007) find that the Basu measure may not be appropriate in all research setting because of some limitations of the measure. For example, they found that characteristics of the firm's information environment that are unrelated to conservatism may unduly affect the Basu measure. In addition, they concluded that the Basu measure is negatively correlated to other measures of conservatism.

However, there is a need for further research to consider more factors that might affect conservatism as environmental and cultural factors, company size and industry type. Such investigation can be carried out using data of a large sample of listed firms to test the relationship between conditional and unconditional conservatism on wide spectrum of variables as earning's quality, stock prices, firm valuation, cost of capital, and corporate governance mechanisms.

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Table 1. Cross sectional regression model results of the sample firms

$$\text{The regression equation: } \frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \epsilon_{it}$$

<b>Panel A</b>						
	$\alpha_0$	$\alpha_1$	$\delta_2$	$\delta_3$	$R^2$	Adjusted $R^2$
	0.045	0.022	0.052	0.244	9.9%	9.77%
<b>Panel B</b>						
	<u>Firms with positive returns</u>			<u>Firms with negative returns</u>		
Adjusted $R^2$	3.05%			7.7%		
No. of observations <sup>(*)</sup>	70			80		

Table 2. Impact of conservatism on earnings quality of the sample firms

$$\text{The regression equation: } \frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} + \epsilon_{it}$$

<i>Company</i>	<i>DR<sub>it</sub></i>	<i>R<sup>2</sup></i>	<i>P. Value</i>
AbouKir Fertilizers	0	25%	0.800
Arab Cotton	1	29.7%	0.920
Arab Polavara	1	63.3%	0.720
CIB	0	0.5%	0.900
Eastern Tobacco	0	22.3%	0.420
MobiNil	0	47.4%	0.019*
EG Eelectrical	1	98%	0.022*
Eg Financial & I	1	19.2%	0.960
Herms	1	94.1%	0.048*
EG Media Products	1	89.6%	0.050*
Ezz Steel	0	9.4%	0.615
Ezz Porcelain	1	98%	0.018*
Ezz Steel	1	70%	0.006*
Watany Bank	1	98.2%	0.008*
Export Bank	1	99%	0.011*
Maridive	0	21.4%	0.432
Misr Beni Suef	1	99%	0.019*
Misr Cement	0	46.7%	0.050*
Misr Chemical	0	31.5%	0.032*
NSGB	1	78.7%	0.036*
Olympic	1	98.4%	0.006*
Orascom Construction	0	2.3%	0.807
Orascom Hotels	1	87.5%	0.043*
Orascom Telecom	1	76.5%	0.059*
Oriental Weavers	0	35.2%	0.029*
Paint & Chemical	0	16.5%	0.490
Sinai Cement	0	78.3%	0.046*
6 <sup>th</sup> of October	1	98.7%	0.014*
Telecom Egypt	0	5.8%	0.690
Torah Cement	0	30%	0.339

(\*) Number of observations is equal to number of firms multiplied by the number of years tested.

Table 3. Impact of conditional conservatism on firms with good news affecting earnings quality and stock prices ( $DR_{it}=0$ )

The regression equation: 
$$\frac{EPS_{it}}{p_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} +$$

$\mathcal{E}_{it}$

<b>Company</b>	<b>R<sup>2</sup></b>	<b>P. Value</b>
AbouKir Fertilizers	25%	0.8
CIB	0.5%	0.9
Eastern Tobacco	22.3%	0.42
MobiNil	47.4%	0.019*
Ezz Steel	9.4%	0.615
Maridive	21.4%	0.432
Misr Cement	46.7%	0.05*
Misr Chemical	31.5%	0.032*
Orascom Construction	2.3%	0.807
Oriental Weavers	35.2%	0.029*
Paint & Chemical	16.5%	0.49
Sinai Cement	78.3%	0.046*
Telecom Egypt	5.8%	0.64
Torah Cement	30%	0.339

Table 4. Impact of unconditional conservatism on firms with good news affecting earnings quality and stock prices ( $DR_{it}=0$ )

The regression equation:

$$\frac{EPS_{it}}{p_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} + \delta_5 MTB_{it} + \mathcal{E}_{it}$$

<b>Company</b>	<b>R<sup>2</sup></b>	<b>P. value*</b>
Eastern Tobacco	81.7%	0.018
MobiNil	74.8%	0.002
Ezz Steel	93.3%	0.050
Misr Cement	91.4%	0.008
Misr Chemical	32.6%	0.032
Paint & Chemical	93%	0.007
Sinai Cement	95.3%	0.043
Telecom Egypt	83.9%	0.016
Torah Cement	46.7%	0.035

Table 5. Impact of unconditional conservatism on firms with bad news affecting earnings quality and stock prices ( $DR_{it}=1$ )

The regression model:

$$\frac{EPS_{it}}{P_{it}} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \delta_4 CFO_{it}/NI_{it} + \delta_5 MTB_{it} + \mathcal{E}_{it}$$

<b>Company</b>	<b>R<sup>2</sup></b>	<b>P. value*</b>
EG. Electrical	98%	0.022
Herms	94.1%	0.048
EG Media Products	89.1%	0.05
Ezz porcelain	98%	0.018
Ezz Steel	70%	0.006
Watany Bank	98.2%	0.008
Export Bank	99%	0.011
Misr Beni Suef	99.1%	0.019
NSGB	78.7%	0.036
Olympic	98.4%	0.006
Orascom Hotels	87.5%	0.043
Orascom Telecom	76.5%	0.015
6 <sup>th</sup> of October	76.5%	0.014

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