

# Conservatism in Accounting: An Empirical Study of Indian Companies

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## Abstract

Conservatism in accounting dates back to early 15th century. Recently attempts have been made by major standard-setters of the world to reduce conservatism in accounting. However, the results of recent research studies signal universal pervasiveness of conservatism. Keeping this in view, an attempt has been made to measure conservatism in accounting in the Indian corporate sector and capture changes therein over the period ranging from 1997-2010. The results of the study indicate that in spite of the efforts by the standard-setters to reduce conservatism, there has been a considerable increase in degree of conservatism in India over time.

**Keywords:** Conservatism, Book-to-Market Ratio, Bias

## 1. Introduction

Accounting is considered to be the language of business. Language helps in communication of information and forming an opinion about the reality. Accounting, as a language, acts as a communication system between two mutually exclusive groups of business, i.e., the users of accounting information (creditors, bankers, present and potential investors, government and employees) and the producers of accounting information (accountants). The users want that the accounting information communicated to them should be useful so that it helps in taking investment, credit and similar decisions (FASB, 1980, p. 4). If the information is not useful then it does not have any merit. Ross (1966, p. 58) while stating the importance of usefulness of information writes, “no statement, however ingenious or logically put together, has any merit whatever unless it communicates useful information- that

is, to say, unless it helps someone to make a decision. In this sense, it can be seen that proposition ‘accounting is language’ is simply another corollary deriving from basic principle of usefulness.” So it becomes the responsibility of the producers of accounting information to service the needs of the users. Usefulness of information has not been defined as such, but to be useful information must possess qualities like relevance, faithful representation, predictive value, confirmative value, completeness, neutrality, free from bias, comparability, verifiability, timeliness, and understandability (FASB, 2010, p. 16-17).

Even the standard-setters attempt to ensure that accounting standards framed by them help in making accounting information useful. Though there are standards in almost all areas of recognition, measurement, recording, summarizing, and communicating the transactions and events, yet there are certain areas for which either standards do not exist or alternate treatments exist which require accountants to exercise judgments and choices. Whenever judgments are to be made, accountants tend to follow conservatism, i.e., if more than one alternative is available with regard to accounting treatment of a transaction, choosing that alternative which reports the lowest value for assets and revenues and highest of several possible values for liabilities and expenses (Hendriksen & Van Breda, 1992, p. 148). This age-old conservative behaviour of accountants significantly influences the accounting practice (Watts, 2003, p. 208).

The roots of conservatism can be traced back to early 15<sup>th</sup> century, nearly ninety years before the publication of Pacioli’s *Summa*, the first text which gave an exposition of double entry system of bookkeeping (Littleton, 1941). At that time business was mainly in the form of sole

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proprietorship and partnership and was managed by the owners themselves. The only external users were creditors (lenders and bankers). Balance Sheet was considered to be the primary and the only financial statement (Hendriksen & Van Breda, 1992, p. 502). Income statement was not prepared at that time. Revenues were increases in capital and expenses were decreases in capital. Net income, the excess of revenues over the expenses, accrued directly to the owners and represented increase in their capital. So the owners used balance sheet to know about profit (loss) through the increase (decrease) in capital. The creditors, on the other hand, were concerned only about efficient use of their funds and margin of safety. Accordingly, they wanted that the assets in balance sheet be recorded at historical cost and changes in asset value (especially increase) be ignored until the asset was sold or disposed of (Godfrey *et al.*, 2006, p. 133). So the principle of conservatism which lent support to historical cost was desired by creditors. They were of the view that owners were naturally optimistic about their own business and they might tend to reflect this optimism in balance sheet while valuing assets. However, the creditors restrained the owners from reflecting this optimism in balance sheet for reasons of uncertain future, i.e., if the future estimates proved wrong it might cause loss to them. Thus, the principle of conservatism was adopted with regard to balance sheet valuations (Hendriksen & Van Breda, 1992, p. 502).

The Industrial Revolution led to growth of large scale business enterprises mainly in the company form of business organisation. The company was regarded as a separate legal entity distinct from its owners. Also the ownership was divested from the management. The ownership no longer remained concentrated in few hands but was scattered over a large number of shareholders. Creditors no longer remained the only external users; employees, government, investors (present and potential) were other users with varied needs as compared to creditors. With these developments, the objective of accounting changed from 'stewardship', i.e., compiling of record for creditors, to 'decision usefulness', i.e., providing relevant information for decision making to all stakeholders including shareholders and investors. This significant change in objective of accounting led to a need of reporting earnings along with balance sheet, disclosure of relevant information, and consistency in reporting, particularly with regard to income statement (Hendriksen & Van Breda, 1992, p. 98).

As the accountants were understating the assets in balance sheet under the influence of conservatism, they started understating incomes also. For understating incomes, all possible losses were included in the process of current income determination. However, the probable gains were deferred until actually realised. But soon it became obvious that this practice led to inconsistency in reporting because understatement of income in one period led to overstatement of income in later period when gains were actually realised. So income statement based on the principle of conservatism became the order of the day. However, not only the income statement but also the balance sheet which was prepared on historical cost basis became a matter of criticism. Critics argued that to enhance decision usefulness, adjustments to historical cost-based assets were required for inflation and market value changes, as the shareholders were not only interested in their original investment but also in making predictions about the increase or decrease in the value of investment. Accordingly, a need was felt to disclose assets at fair value and not at historical cost.

As a result of the above developments in the area of accounting conservatism, the standard-setters especially Financial Accounting Standards Board (FASB) and International Accounting Standards Board (IASB) started moving away from conservatism while setting standards ignoring reasons why it existed and prospered for so long. They started including fair value instead of historical cost for valuing many assets. But in spite of their persistent efforts, the impact of conservatism is still reflected in many accounting standards of FASB and IASB. For example, FASB provides LIFO method for assigning cost of inventories as compared to FIFO (ASC<sup>1</sup>-330) which is conservative under inflationary conditions. It also allows reducing balance method of depreciation (ASC-360) and expensing of research and development expenses (ASC-350) which reflect conservatism (Beaver & Ryan, 2000, p. 138). On the other hand, IASB though does not provide LIFO method but allows lower cost or market rule for carrying inventories. Scott (1926) emphasizes that if one follows the above rule, one is conservative. IASB's standards related to percentage of completion method (IFRS<sup>2</sup>-11), recognition of deferred tax receivable pertaining to loss carry forwards (IFRS-

1 For reporting periods ending after September 15, 2009, FASB's Accounting Standards Codification (ASC) became effective.

2 International Financial Reporting Standards (IFRS) are issued by International Accounting Standards Board, London, England.

12), and capitalisation and impairment of development costs (IFRS-38) reflect conservatism (Hellman, 2007). As far as Indian accounting standards are concerned, conservatism still influences accounting practices in India. For example, AS<sup>3</sup>-2 (Accounting for Inventories) allows lowering of cost or net realisable value. AS-5 (Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies) allows exercise of judgment in identifying an item as extraordinary item in the context of business and environment in which entity operates and thus, while making judgment accountants are likely to be conservative in their approach. AS-6 (Depreciation Accounting) provides for minimum depreciation and allows for reducing balance method of depreciation and the reducing balance method reflects conservative choice of accountants as it helps in recovering the cost in initial years (Lal, 2005, p. 327). AS-13 (Accounting for Investments) does not allow unrealised gains in long term investments. In AS-22 (Accounting for Taxes on Income) deferred tax liability is recognised whereas deferred tax asset is recognised only if there is reasonable certainty. AS-26 (Accounting for Intangible Assets) reflects conservatism in treatment of research and development, and advertising expenditure. It dictates that an enterprise should not recognise an asset created from research expenditure and the amount thus spent should be charged to income statement.

All the above-mentioned practices reflect existence of conservatism in accounting. Further, this argument gets strong support from Givoly & Hyan (2000) who report existence of conservatism in U.S.; Ball *et al.* (2000) who argue that conservatism exists in France, Germany, Japan, Australia, Canada, UK, and USA; Giner & Rees (2001) who claim that conservatism is universally pervasive; and Hellman (2007) who reveals existence of conservatism even under the IFRS framework.

As evident, universal pervasiveness of conservatism and instances of increase in conservatism overtime (Givoly & Hyan, 2000) motivate this study which attempts to measure conservatism in accounting in India and comments on the change therein over a period of time.

<sup>3</sup> Accounting Standards (AS) are issued by Accounting Standards Board, Institute of Chartered Accountants of India, New Delhi, India.

## 2. Review of Literature

Fethlam and Ohlson (1995) establish a relationship between firm's market value and book value concerning operating and financial activities. They argue that book values and market values of financial assets and liabilities coincide because there are perfect markets for such assets. So, accounting is 'unbiased' as far as financial assets and liabilities are concerned. On the other hand, there are no perfect markets for operating assets. They are valued on the basis of expected cash flows adjusted for accruals and while adjusting for accruals, conservatism is followed. Consequently, there arises a difference between market values and book values of operating assets and that difference is a measure of conservatism.

Basu (1997) derives 'differential timeliness' measure of conservatism. He characterizes conservatism in accounting as more timely recognition, in earnings, of a bad news regarding future cash flows than good news. He proves that earnings are 2-6 times sensitive for negative unexpected returns than positive ones. Secondly, he proves that conservatism acts through accruals and not through cash flows. Lastly, positive earning changes are more persistent, whereas, negative earning changes show a marked tendency to reverse.

Ball *et al.* (2000) argue that in code-law countries (France, Germany, and Japan) accounting practices are influenced by demands of all the stakeholders, viz., shareholders, government, employees, managers, debt holders. Therefore, accounting income, in such countries, is directly linked to current period payouts to above stakeholders and is less timely in incorporating economic losses. On the other hand, in common-law countries (Australia, Canada, UK and USA) accounting rules are only determined by shareholders, so, accounting income is less linked to current payouts, but is focused on reducing information asymmetry. Therefore, economic losses are more timely incorporated in accounting, i.e., common-law countries follow more conservative accounting than code-law countries.

Beaver and Ryan (2000) decompose the book-to-market (BTM) ratio into two components: bias and lag. Bias is explained as book value persistently higher (lower) than market value. So, BTM is persistently above (below) one. Lag means unexpected economic gains (losses) are recognized in book value over time rather than immediately. So, BTM is temporarily lower (higher) than

it's mean but tends towards mean over time. They argue that bias is associated with measures of conservatism, i.e., conservative accounting choices of inventory valuation, depreciation method and R&D and advertising expensing. Lags are not associated with above conservative accounting choices rather they are related to historical cost accounting.

Givoly and Hyan (2000) have studied the changes in time-series properties of earnings, cash flows and accruals in the U.S. from the year 1950- 1998. They argue that reported profitability has declined over the period but there is no decline in cash flows. Moreover, earnings distributions have become more dispersed and skewed, over the time, relative to cash flows. All this indicates an increase in degree of conservatism in the U.S.

Hellman (2007) emphasizes that with the change in purpose of modern accounting standards from stewardship to decision making, principle of conservatism finds no apparent place in International Financial Reporting Standards (IFRS) regime. However, absence of conservatism principle doesn't mean that conservatism principle is no longer applied. It is applied in three major standards, IAS 12, judgment related to recognitions of deferred tax receivable pertaining to loss carry forwards, IAS 38, judgment regarding capitalization and impairment of development costs and IAS 11, judgment regarding percentage of completion method.

Watts (2003) explains that conservatism has influenced accounting practice for a long time and this influence has increased over a period of time. He explains four alternative explanations for existence of conservatism, viz., contracting, litigation, taxation and accounting regulations.

### 3. Research Methodology

#### a. Period of Study

The study has been conducted over a fourteen-year period (1997-2010) divided in two parts, i.e., 1997-2003 and 2004-2010. The reason for this division of time period is a shift in the focus of standard-setters in India away from conservatism around 2003. This is evident from certain developments which happened in 2003. For example, Indian accounting standards using fair value, viz., AS-26 (Accounting for Intangibles), AS-11 (Accounting for the Effects of Changes in Foreign Exchange Rates) and

AS-29(Provisions, Contingent Liabilities and Contingent Assets) were either introduced or revised in 2003. Further, the recommendations of the Kumar Manglam Committee on Corporate Governance (Fernando, 2006) for investor protection were implemented for its last phase in 2003. In the light of this, an attempt has been made to measure and compare the degree of conservatism and to find whether there has been a change in conservatism over time or not.

#### b. Sample Size and Source of Data

The top 200 Indian non-financial companies ranked on the basis of sales revenue have been selected on the basis of *Compendium* (2009) ranking and relevant information has been sifted from Prowess Database. 58 companies have been deleted for reasons of incomplete information. Consequently, the analysis has been done for 142 companies.

#### c. Measure of Conservatism

Researchers have attempted to measure conservatism in accounting in a number of ways. Feltham & Ohlson (1995) have used Market-to-Book (MTB) ratio whereas Beaver and & Ryan (2000) have used Book-to-Market (BTM) ratio. Basu (1997) measures conservatism through Differential Timeliness of Earnings (DT) and Givoly & Hyan (2000) have used negative accruals to measure the existence of conservatism.

To measure conservatism in Indian companies, BTM ratio has been used in this study because of its wide acceptance in literature. Moreover, this measure is likely to provide better results if measurement periods are long and measurement is not limited to single industry (Givoly et al., 2007).

As discussed earlier, conservatism has been measured by using BTM ratio as the same has been widely used in literature to measure conservatism. The underlying idea of this measure is that conservatism tends to depress net book value of the firm from its true economic value resulting in low BTM ratio. Therefore, lower the BTM ratio, higher is the degree of conservatism and vice versa.

Beaver & Ryan (2000) explain BTM ratio in terms of bias and lag. The bias component is measured as firm-specific effect and captures the tendencies of individual firms to report low (high) BTM ratio persistently. The lag component measures only the transitory portion of BTM ratio which gets filtered out of BTM after a few years. They are of the view that BTM ratio as a whole is not a

measure of accounting conservatism, rather only of the firm-specific effect (bias component) which captures the individual firm's tendencies to report low BTM ratio is a measure of accounting conservatism. They regress BTM ratio onto current and six lagged security returns with fixed firm and time effects. They include the time-specific effect to capture year-by-year variations in BTM ratio across all the firms. These year-by-year variations occur due to changes in business environment and government regulations. Since time-specific effect is strongly associated with past security returns, if not included, they can affect the values of lag coefficients.

Beaver & Ryan (2000) use the following regression equation to measure conservatism

$$BTM_{t,i} = \alpha_t + \alpha_i + \sum_{j=0}^6 \beta_j R_{t-j,i} + e_{t,i}$$

$BTM_{t,i}$  book-to-market ratio at the end of year  $t$  of firm  $i$

$\alpha_t$  time-specific variation in BTM

$\alpha_i$  firm-specific variation in BTM

$R_{t-j,i}$  return on equity over each of preceding 6 years

$\beta_j$  regression coefficients on  $R_{t-j,i}$

Beaver & Ryan (2000) have used Fixed Effects Model (FEM), a technique of panel data estimation for data analysis. This technique captures the specific features of the individual units (firms or individuals) in constant term of regression and gives more informative results. There are many variants of this technique. But the study follows 'Fixed Effect Time Variant' panel data model (as followed by Beaver & Ryan, 2000) to measure conservatism whereby it is assumed that intercept varies across firms and also over time (Gujarati, 2004, p. 644). This fixed effect intercept is allowed to vary between firms and years by introducing dummies for firms and years in regression equation which is written as:

$$Y_{t,i} = \alpha + \sum_{i=1}^n \alpha_i D_i + \sum_{t=1}^T \alpha_t D_t + \sum_{j=1}^k \beta_j X_{t,i,j} + u_{t,i}$$

$Y_{t,i}$  dependent variable

$\alpha$  constant term

$\sum_{i=1}^n \alpha_i D_i$  dummy variables capturing firm effect

$\sum_{t=1}^T \alpha_t D_t$  dummy variables capturing time effect

$\sum_{j=1}^k X_{t,i,j}$  independent variable

$\beta_j$ 's coefficients of independent variables

$u_{t,i}$  error term

## 4. Accounting Conservatism in Indian Companies

In pooled cross-sections over a seven-year period from 1997-2003 and 2004-2010, BTM ratio has been regressed onto the current and two lagged security returns (assuming that transitory variations in BTM ratio are filtered out in 2 years<sup>4</sup>) with fixed firm- and time- effect. So the equation becomes:

$$BTM_{t,i} = \alpha + \alpha_i + \alpha_t + \sum_{j=0}^2 \beta_j R_{t-j,i} + e_{t,i}$$

BTM ratio has been calculated by dividing per share book value of equity with market value at fiscal year-end.

The coefficient  $\alpha_i$  represents the firm-specific effect. It is that portion of BTM which is neither explained by time-specific effect nor by current or lagged returns. It has been measured by introducing dummy for each firm, i.e., 1 if entry belongs to that firm, 0 otherwise. The coefficient  $\alpha_i$  measures conservatism inversely, i.e.,  $\alpha_i$  decreases as market value increases relative to book value. So lower the  $\alpha_i$ , more is the degree of conservatism.

The coefficient  $\alpha_t$  represents the time-specific effect and captures year by year variation in BTM ratio common to sample firms. This variation is mainly caused by changes in regulations, government policies, and business environment over time.

The  $\beta_j$ 's are coefficients of lagged returns and represent that portion of market value changes which are not recognised in book value as of now but will be recognised in the coming years when market value changes will be realised.  $\beta_j$ 's are expected to be negative because the unrecognised market value change decreases the BTM ratio. The  $\beta_j$ 's are expected to move towards zero with lag  $j$ , as and when market value changes become fully recognised. In the analysis, two lags have been used, so

<sup>4</sup> This is based on a communication of Stephen G. Ryan to the corresponding author.

there will be three  $\beta_j$ 's, viz,  $\beta_0$ , coefficient of security returns for current year,  $\beta_1$ , coefficient of security returns for lag 1, and  $\beta_2$  representing coefficient of security returns for lag 2.

### 4.1. Firm-specific Effect

As already explained, the firm-specific effect ( $\alpha_i$ ) captures the degree of conservatism inversely, i.e., lower the value of  $\alpha_i$  higher is the conservatism. Table 1 carries the pooled sample percentiles of  $\alpha_i$  in Indian companies for the period 1997-2003.

**Table 1: Pooled Sample Percentiles of  $\alpha_i$ (1997-2003)**

Percentiles	1%	5%	25%	50%	75%	95%	99%
value of $\alpha_i$	-0.742	-0.319	0.26	0.812	1.891	4.43	5.849

The results depict that value of  $\alpha_i$  across the sample Indian companies varies from -0.742 to 5.849 for the period 1997-2003. Out of the sample, 25% companies have  $\alpha_i$  below 0.260, i.e., they are highly conservative because lower  $\alpha_i$ 's indicate higher conservatism. The median  $\alpha_i$  is 0.812 indicating that 50% of the companies have  $\alpha_i$ 's above 0.812 (closer to 1), i.e., are less conservative. Many companies have  $\alpha_i$  equal to 1 depicting absence of conservatism. The detailed analysis carried by Appendix 1 (Table A1) shows that 23 companies have negative  $\alpha_i$ 's and 74 have  $\alpha_i$ 's above 1. In other words there are wide variations in the values of  $\alpha_i$ 's and thus degree of conservatism. Companies which are highly conservative belong mainly to Technology Hardware & Equipment, Computer Software & Services, Drugs & Biotechnology, Chemical and Food Drinks & Tobacco, whereas Utilities, Diversified Financials, Materials, Capital Goods, Construction, and Household and Personal Products companies fall mostly in  $\alpha_i$  above median category showing lower levels of conservatism.

Table 2 shows the five companies with lowest  $\alpha_i$ 's (highly conservative) and highest  $\alpha_i$ 's (least conservative) for the

period 1997-2003 which reinforces the above conclusion.

Table 3 presents the pooled sample percentiles of  $\alpha_i$  for the period 2004-2010. The dispersion of  $\alpha_i$  across the sample Indian companies is from -0.077 to 1.977 for the period 2004-2010. Out of the sample, 25% companies have  $\alpha_i$  below 0.183, i.e., are highly conservative. The median  $\alpha_i$  is 0.425. A closer look at Appendix 1 (Table A2) highlights that only 4 companies have negative  $\alpha_i$ 's and 21 have  $\alpha_i$ 's above 1 meaning thereby that there is considerable decrease in the variation of degree of conservatism.

**Table 3: Pooled Sample Percentiles of  $\alpha_i$  (2004-2010)**

Percentiles	1%	5%	25%	50%	75%	95%	99%
value of $\alpha_i$	-0.077	.019	.183	.425	.775	1.443	1.977

Table 4 shows the five companies with lowest  $\alpha_i$ 's (highly conservative) and highest  $\alpha_i$ 's (least conservative) in the period 2004-2010.

On comparing the results of 1997-2003 and 2004-2010 encapsulated in Tables 1 and 3, it has been observed that conservatism has increased considerably over time. Table 1 reports that the median  $\alpha_i$  in 1997-2003 is 0.812 (closer to 1) whereas it is 0.412 in 2004-2010 (Table 3) signifying increase in degree of conservatism. Secondly, the variation of  $\alpha_i$ 's has decreased over time. It is obvious from the fact that  $\alpha_i$  varies from -0.742 to 5.849 in 1997-2003 whereas only from -0.077 to 1.977 in 2004-2010. This also gets proved by the fact that the number of companies with negative  $\alpha_i$  (highly conservative) has reduced from 23 to 4 and the number of companies with  $\alpha_i$  above 1 (less conservative) has gone down from 74 to 21 over this period. Thirdly,  $\alpha_i$ 's of those companies have decreased more in 2004-2010 which had high  $\alpha_i$ 's in 1997-2003 (refer to Appendix 1). For example, Aditya Birla Nuvo Ltd., Apar Industries Ltd., Ashok Leyland Ltd., Alok Industries, Apollo Tyres Ltd., Areva T & D India Ltd., Arvind Ltd., B E M L, Bombay Dyeing & Mfg. Co.

**Table 2: Five Most and Least Conservative Companies (1997-2003)**

Most Conservative Companies	Value of $\alpha_i$	Least Conservative Companies	Value of $\alpha_i$
Hindustan Unilever Ltd.	-0.812	Mukand Ltd.	6.942
Satyam Computer Services Ltd.	-0.748	Bhushan Steel Ltd.	5.937
Dabur India Ltd.	-0.734	Gujarat State Fertilizers & Chemicals Ltd.	5.717
Clariant Chemicals (India) Ltd.	-0.527	B E M L Ltd.	5.002
Wipro Ltd.	-0.368	Kirloskar Industries Ltd.	4.877

**Table 4: Five Most and Least Conservative Companies (2004-2010)**

Most Conservative Companies	Value of $\alpha_i$	Least Conservative Companies	Value of $\alpha_i$
Satyam Computer Services Ltd.	-0.113	Alok Industries Ltd.	1.502
Madras Cements Ltd.	-0.087	Gujarat Alkalies & Chemicals Ltd.	1.537
Siemens Ltd.	-0.062	Mahanagar Telephone Nigam Ltd.	1.939
Marico Ltd.	-0.048	Vardhman Textiles Ltd.	2.003
Hindustan Unilever Ltd.	0.002	Arvind Ltd.	2.132

Ltd., Century Textiles & Inds. Ltd., Crompton Greaves Ltd., Greaves Cotton Ltd., Hindustan Construction Co. Ltd., apart from many other companies, which have values of  $\alpha_i$  above 1 during 1997-2003 now have  $\alpha_i$ 's around 0.5 showing remarkable increase in degree of conservatism. For companies which have low  $\alpha_i$ 's in 1997-2003 period there is not much change in 2004-2010. It means that degree of conservatism has remained same for such companies. These findings indicate that accounting conservatism has increased over time.

#### 4.2. Time-specific Effect

Time-specific effect  $\alpha_t$  captures year by year variation in BTM ratio common to sample firms. The coefficients of time-effect, i.e.,  $\alpha_{2001}$ ,  $\alpha_{2002}$ ,  $\alpha_{2003}$  reflect the variations in BTM ratio in the years 2001, 2002 and 2003 as compared to 2000 whereas  $\alpha_{2008}$ ,  $\alpha_{2009}$ ,  $\alpha_{2010}$  explain the variations in the years 2008, 2009 and 2010 as compared to 2007 (refer to Appendix 1). These variations are common to all firms<sup>5</sup>. The results reveal that as compared to 2000,  $\alpha_t$ 's have increased in all the three years, i.e., 2001, 2002 and 2003. The increase is 0.461, 0.353, and 0.094 respectively and is significant at 0.000, 0.002 and 0.395 level respectively. This shows that time-effect is not a cause of low BTM ratios in Indian companies. Similar results have been obtained for the period 2004-2010.

#### 4.3. Lag Effect

The lag effect is explained by  $\beta_j$  components which are the slope coefficients of stock returns. It is obvious from results (refer to Appendix 1) that  $\beta_j$ 's are negative and decreasing for current and two lags for the period 1997-2003.  $\beta_0$  is -0.108 significant at 0.000 level,  $\beta_1$  is -0.085

significant at 0.000 level  $\beta_2$  is -0.027 significant at 0.064 level. This means that temporary market value changes are adjusted in book values in current and next two lags.

The  $\beta_j$ 's for the period 2004-2010 are negative and decreasing for current and two lags.  $\beta_0$  is -0.030 significant at 0.000 level,  $\beta_1$  is -0.043 significant at 0.000 level  $\beta_2$  is -0.018 significant at 0.001 level. This reflects that lag effect is significant in 2004-2010 also.

### 5. Conclusion

The results indicate that accounting conservatism has increased over a period of time, i.e., from 1997-2010, in the Indian corporate sector. The major developments in 2003 in India regarding introduction of standards on fair value that aimed at doing away with conservatism have not helped decrease the level of conservatism, rather conservatism has increased because these values, though relevant, are not verifiable. The accountants while including the unverifiable numbers in financial statements tend to be more conservative. However, the variation in degree of conservatism, it may be noted, has reduced. Conservatism is more in companies belonging to Technology Hardware & Equipment, Computer Software & Services, Drugs & Biotechnology, Chemical, and Food Drinks & Tobacco whereas in sectors like Utilities, Diversified Financials, Materials, Capital Goods, Construction, and Household and Personal Products conservatism is less. Increase in conservatism in Indian corporate sector has serious implications for standard-setters, decision makers in business, and policy makers in the Government especially in the light of the fact that India is one of the fastest growing economies of the world and is under the scanner of global investors.

### 6. Scope for Future Research

The subject offers a lot of scope for further in the current scenario.

<sup>5</sup> Over a seven year period, as regression Equation I has been run for current and two lags, only four year observations are left for both the time slots. Taking 2000 as base, three year-specific dummies are introduced for 2001, 2002 and 2003. And then taking 2007 as base, three year-specific dummies are introduced for 2008, 2009 and 2010.

1. A similar study can be conducted by making a cross-national comparison of degree of conservatism with different economies.
2. Mainly book-to-market ratio has been used as a measure of conservatism. Other measures can be used to observe whether levels of conservatism stay the same with different measures.
3. A study focusing on industry-specific conservatism level could be carried out.

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## Appendix 1

Table A1: Firm-specific Conservatism(1997-2003)

Coefficient	Company Name	Value of Coefficient	Std Error	t-value	Sig Level
	(Constant)	.109	.469	.233	.816
$\alpha_1$	A C C Ltd.	-.325	.662	-.491	.624
$\alpha_2$	Adani Enterprises Ltd.	.687	.656	1.048	.295
$\alpha_3$	Aditya Birla Nuvo Ltd.	2.255	.656	3.438	.001
$\alpha_4$	Akzo Nobel India Ltd.	.675	.656	1.029	.304
$\alpha_5$	Alok Industries Ltd.	2.676	.656	4.079	.000
$\alpha_6$	Ambuja Cements Ltd.	.212	.656	.323	.747
$\alpha_7$	Apar Industries Ltd.	2.018	.656	3.075	.002
$\alpha_8$	Apollo Tyres Ltd.	1.076	.656	1.640	.102
$\alpha_9$	Areva T & D India Ltd.	1.286	.656	1.961	.051
$\alpha_{10}$	Arvind Ltd.	3.652	.657	5.558	.000
$\alpha_{11}$	Ashok Leyland Ltd.	1.045	.656	1.592	.112
$\alpha_{12}$	Asian Paints Ltd.	-.098	.656	-.149	.881
$\alpha_{13}$	Aurobindo Pharma Ltd.	.237	.656	.362	.718
$\alpha_{14}$	B E M L Ltd.	5.002	.656	7.626	.000
$\alpha_{15}$	Bajaj Electricals Ltd.	2.419	.656	3.689	.000
$\alpha_{16}$	Bajaj Hindusthan Ltd.	1.669	.656	2.545	.011
$\alpha_{17}$	Ballarpur Industries Ltd.	1.877	.656	2.861	.004
$\alpha_{18}$	BalmerLawrie & Co. Ltd.	2.943	.656	4.487	.000
$\alpha_{19}$	BalrampurChini Mills Ltd.	.984	.656	1.501	.134
$\alpha_{20}$	Berger Paints India Ltd.	.376	.656	.574	.566
$\alpha_{21}$	Bharat Electronics Ltd.	.707	.656	1.077	.282
$\alpha_{22}$	Bharat Forge Ltd.	.340	.656	.518	.605
$\alpha_{23}$	Bharat Heavy Electricals Ltd.	.612	.656	.933	.352
$\alpha_{24}$	Bharat Petroleum Corpn. Ltd.	.348	.656	.531	.595
$\alpha_{25}$	Bhushan Steel Ltd.	5.937	.656	9.052	.000
$\alpha_{26}$	Birla Corporation Ltd.	1.521	.656	2.319	.021
$\alpha_{27}$	Blue Star Ltd.	.643	.656	.980	.327
$\alpha_{28}$	Bombay Dyeing & Mfg. Co. Ltd.	2.921	.656	4.455	.000
$\alpha_{29}$	Bosch Ltd.	.241	.656	.367	.713
$\alpha_{30}$	Britannia Industries Ltd.	-.187	.656	-.286	.775
$\alpha_{31}$	C E S C Ltd.	2.315	.656	3.530	.000
$\alpha_{32}$	Castrol India Ltd.	-.319	.656	-.486	.627
$\alpha_{33}$	Century Textiles & Inds. Ltd.	1.682	.677	2.483	.013
$\alpha_{35}$	Chambal Fertilisers & Chemicals Ltd.	1.563	.656	2.383	.018
$\alpha_{36}$	Chennai Petroleum Corpn. Ltd.	2.239	.656	3.415	.001
$\alpha_{37}$	Cipla Ltd.	-.200	.656	-.306	.760
$\alpha_{38}$	Clariant Chemicals (India) Ltd.	-.527	.707	-.745	.457

Coefficient	Company Name	Value of Coefficient	Std Error	t-value	Sig Level
$\alpha_{39}$	Colgate-Palmolive (India) Ltd.	-.217	.656	-.330	.741
$\alpha_{40}$	Container Corpn. Of India Ltd.	.354	.656	.539	.590
$\alpha_{41}$	Coromandel International Ltd.	1.783	.656	2.718	.007
$\alpha_{42}$	Crompton Greaves Ltd.	1.419	.656	2.164	.031
$\alpha_{43}$	Cummins India Ltd.	-.162	.658	-.247	.805
$\alpha_{44}$	Dabur India Ltd.	-.734	.666	-1.102	.271
$\alpha_{45}$	Dr. Reddy'S Laboratories Ltd.	-.159	.656	-.242	.809
$\alpha_{46}$	E I D-Parry (India) Ltd.	2.760	.656	4.208	.000
$\alpha_{47}$	Eicher Motors Ltd.	.777	.656	1.185	.237
$\alpha_{48}$	Electrosteel Castings Ltd.	.696	.657	1.060	.290
$\alpha_{49}$	Escorts Ltd.	1.477	.656	2.252	.025
$\alpha_{50}$	Exide Industries Ltd.	.700	.656	1.067	.287
$\alpha_{51}$	Force Motors Ltd.	.370	.656	.565	.573
$\alpha_{52}$	G A I L (India) Ltd.	.718	.656	1.095	.274
$\alpha_{53}$	Glaxosmithkline Consumer Healthcare Ltd.	-.088	.656	-.133	.894
$\alpha_{54}$	Godfrey Phillips India Ltd.	.260	.656	.397	.691
$\alpha_{55}$	Grasim Industries Ltd.	.812	.656	1.237	.217
$\alpha_{56}$	Great Eastern Shipping Co. Ltd.	1.653	.656	2.520	.012
$\alpha_{57}$	Greaves Cotton Ltd.	3.146	.656	4.795	.000
$\alpha_{58}$	Gujarat Alkalies& Chemicals Ltd.	4.866	.656	7.419	.000
$\alpha_{59}$	Gujarat Narmada Valley Fertilizers Co. Ltd.	1.739	.656	2.652	.008
$\alpha_{60}$	Gujarat State Fertilizers & Chemicals Ltd.	5.717	.656	8.717	.000
$\alpha_{61}$	H C L Infosystems Ltd.	.306	.657	.465	.642
$\alpha_{62}$	Havells India Ltd.	.115	.656	.176	.861
$\alpha_{63}$	Hero Honda Motors Ltd.	-.361	.657	-.550	.582
$\alpha_{64}$	Hindalco Industries Ltd.	.551	.656	.840	.402
$\alpha_{65}$	Hindustan Construction Co. Ltd.	1.295	.656	1.973	.049
$\alpha_{66}$	Hindustan Petroleum Corpn. Ltd.	.590	.656	.899	.369
$\alpha_{67}$	Hindustan Unilever Ltd.	-.812	.663	-1.224	.221
$\alpha_{68}$	Hindustan Zinc Ltd.	1.364	.656	2.080	.038
$\alpha_{69}$	Housing Development Finance Corpn. Ltd.	-.230	.657	-.350	.727
$\alpha_{70}$	I T C Ltd.	-.116	.656	-.176	.860
$\alpha_{71}$	I V R C L Infrastructures & Projects Ltd.	1.595	.656	2.432	.015
$\alpha_{72}$	India Cements Ltd.	1.100	.656	1.678	.094
$\alpha_{73}$	Indian Hotels Co. Ltd.	.662	.656	1.010	.313
$\alpha_{74}$	Indian Oil Corpn. Ltd.	.688	.656	1.048	.295
$\alpha_{75}$	Indo Rama Synthetics (India) Ltd.	2.128	.656	3.244	.001
$\alpha_{76}$	Infosys Technologies Ltd.	-.279	.656	-.425	.671
$\alpha_{77}$	J S W Steel Ltd.	1.512	.656	2.305	.022
$\alpha_{78}$	Jindal Poly Films Ltd.	3.550	.656	5.413	.000
$\alpha_{79}$	Jindal Saw Ltd.	1.071	.656	1.633	.103
$\alpha_{80}$	Jubilant Life Sciences Ltd.	1.891	.656	2.883	.004

<i>Coefficient</i>	<i>Company Name</i>	<i>Value of Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>Sig Level</i>
$\alpha_{81}$	Kansai Nerolac Paints Ltd.	.759	.656	1.158	.248
$\alpha_{82}$	Kesoram Industries Ltd.	2.439	.656	3.718	.000
$\alpha_{83}$	Kirloskar Industries Ltd.	4.877	.656	7.437	.000
$\alpha_{84}$	L I C Housing Finance Ltd.	1.736	.656	2.647	.008
$\alpha_{85}$	Lakshmi Machine Works Ltd.	2.357	.656	3.593	.000
$\alpha_{86}$	Larsen & Toubro Ltd.	.379	.656	.578	.563
$\alpha_{87}$	Lupin Ltd.	.693	.656	1.057	.291
$\alpha_{88}$	M R F Ltd.	1.049	.656	1.600	.110
$\alpha_{89}$	Madras Cements Ltd.	.421	.656	.642	.521
$\alpha_{90}$	Mahanagar Telephone Nigam Ltd.	.638	.656	.973	.331
$\alpha_{91}$	Maharashtra Seamless Ltd.	.895	.656	1.365	.173
$\alpha_{92}$	Mangalore Refinery & Petrochemicals Ltd.	.607	.656	.925	.355
$\alpha_{93}$	Marico Ltd.	.048	.656	.073	.942
$\alpha_{94}$	Micro Inks Ltd.	.160	.656	.244	.808
$\alpha_{95}$	Moser Baer India Ltd.	.326	.656	.496	.620
$\alpha_{96}$	Mukand Ltd.	6.942	.656	10.578	.000
$\alpha_{97}$	Nagarjuna Fertilizers & Chemicals Ltd.	4.092	.656	6.240	.000
$\alpha_{98}$	National Aluminium Co. Ltd.	.562	.656	.856	.392
$\alpha_{99}$	Nestle India Ltd.	-.267	.656	-.406	.685
$\alpha_{100}$	Neyveli Lignite Corpn. Ltd.	2.285	.656	3.484	.001
$\alpha_{101}$	Nirma Ltd.	.055	.656	.084	.933
$\alpha_{102}$	Oil & Natural Gas Corpn. Ltd.	.821	.656	1.252	.211
$\alpha_{103}$	Orchid Chemicals & Pharmaceuticals Ltd.	1.174	.656	1.790	.074
$\alpha_{104}$	Orient Paper & Inds. Ltd.	.612	.656	.934	.351
$\alpha_{105}$	P S L Ltd.	1.731	.656	2.638	.009
$\alpha_{106}$	Pidilite Industries Ltd.	.023	.656	.034	.973
$\alpha_{107}$	Piramal Healthcare Ltd.	-.006	.656	-.010	.992
$\alpha_{108}$	Ranbaxy Laboratories Ltd.	-.144	.656	-.220	.826
$\alpha_{109}$	Rashtriya Chemicals & Fertilizers Ltd.	2.438	.656	3.716	.000
$\alpha_{110}$	Raymond Ltd.	1.169	.656	1.783	.075
$\alpha_{111}$	Reliance Industries Ltd.	.134	.656	.204	.838
$\alpha_{112}$	Reliance Infrastructure Ltd.	.531	.656	.809	.419
$\alpha_{113}$	Ruchi Soya Inds. Ltd.	3.437	.656	5.240	.000
$\alpha_{114}$	S K F India Ltd.	.034	.675	.051	.960
$\alpha_{115}$	S Kumars Nationwide Ltd.	3.632	.656	5.535	.000
$\alpha_{116}$	S R F Ltd.	2.097	.656	3.197	.001
$\alpha_{117}$	Satyam Computer Services Ltd.	-.748	.667	-1.122	.262
$\alpha_{118}$	Sesa Goa Ltd.	1.759	.656	2.682	.008
$\alpha_{119}$	Shipping Corpn. Of India Ltd.	2.216	.656	3.378	.001
$\alpha_{120}$	Shriram Transport Finance Co. Ltd.	2.369	.656	3.611	.000
$\alpha_{121}$	Sical Logistics Ltd.	4.430	.656	6.755	.000
$\alpha_{122}$	Siemens Ltd.	.005	.656	.007	.994

Coefficient	Company Name	Value of Coefficient	Std Error	t-value	Sig Level
$\alpha_{123}$	Steel Authority Of India Ltd.	1.112	.656	1.696	.091
$\alpha_{124}$	Sterlite Industries (India) Ltd.	1.512	.656	2.303	.022
$\alpha_{125}$	Sun Pharmaceutical Inds. Ltd.	-.161	.656	-.246	.806
$\alpha_{126}$	Sundram Fasteners Ltd.	.347	.656	.529	.597
$\alpha_{127}$	Supreme Industries Ltd.	1.520	.656	2.317	.021
$\alpha_{128}$	T V S Motor Co. Ltd.	.224	.656	.342	.733
$\alpha_{129}$	Tata Chemicals Ltd.	1.777	.656	2.710	.007
$\alpha_{130}$	Tata Communications Ltd.	.585	.661	.886	.376
$\alpha_{131}$	Tata Global Beverages Ltd.	.344	.656	.525	.600
$\alpha_{132}$	Tata Power Co. Ltd.	1.557	.656	2.374	.018
$\alpha_{133}$	Thermax Ltd.	1.503	.656	2.291	.022
$\alpha_{134}$	Titan Industries Ltd.	.317	.656	.483	.629
$\alpha_{135}$	Tube Investments Of India Ltd.	2.025	.656	3.087	.002
$\alpha_{136}$	Uniphos Enterprises Ltd.	2.293	.656	3.497	.001
$\alpha_{137}$	Usha Martin Ltd.	3.533	.659	5.364	.000
$\alpha_{138}$	Vardhman Textiles Ltd.	3.394	.656	5.176	.000
$\alpha_{139}$	Voltas Ltd.	.699	.656	1.065	.287
$\alpha_{140}$	Wipro Ltd.	-.368	.656	-.560	.576
$\alpha_{141}$	Wockhardt Ltd.	-.088	.656	-.135	.893
$\alpha_{142}$	Zuari Industries Ltd.	4.550	.657	6.930	.000
$\alpha_{2001}$		.461	.114	4.040	.000
$\alpha_{2002}$		.353	.112	3.141	.002
$\alpha_{2003}$		.094	.111	.851	.395
$\beta_0$		-.108	.026	-4.104	.000
$\beta_1$		-.085	.024	-3.599	.000
$\beta_2$		-.027	.015	-1.858	.064

**Table A1(a): Model Summary of Table A1**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879(a)	.772	.692	.92739

**Table A2: Firm-specific Conservatism (1997-2003)**

Coefficient	Company Name	Value of Coefficient	Std Error	t-value	Sig Level
	(Constant)	.109	.469	.233	.816
$\alpha_1$	A C C Ltd.	-.325	.662	-.491	.624
$\alpha_2$	Adani Enterprises Ltd.	.687	.656	1.048	.295
$\alpha_3$	Aditya Birla Nuvo Ltd.	2.255	.656	3.438	.001
$\alpha_4$	Akzo Nobel India Ltd.	.675	.656	1.029	.304
$\alpha_5$	Alok Industries Ltd.	2.676	.656	4.079	.000
$\alpha_6$	Ambuja Cements Ltd.	.212	.656	.323	.747
$\alpha_7$	Apar Industries Ltd.	2.018	.656	3.075	.002

<i>Coefficient</i>	<i>Company Name</i>	<i>Value of Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>Sig Level</i>
$\alpha_8$	Apollo Tyres Ltd.	1.076	.656	1.640	.102
$\alpha_9$	Areva T & D India Ltd.	1.286	.656	1.961	.051
$\alpha_{10}$	Arvind Ltd.	3.652	.657	5.558	.000
$\alpha_{11}$	Ashok Leyland Ltd.	1.045	.656	1.592	.112
$\alpha_{12}$	Asian Paints Ltd.	-.098	.656	-.149	.881
$\alpha_{13}$	Aurobindo Pharma Ltd.	.237	.656	.362	.718
$\alpha_{14}$	B E M L Ltd.	5.002	.656	7.626	.000
$\alpha_{15}$	Bajaj Electricals Ltd.	2.419	.656	3.689	.000
$\alpha_{16}$	Bajaj Hindusthan Ltd.	1.669	.656	2.545	.011
$\alpha_{17}$	Ballarpur Industries Ltd.	1.877	.656	2.861	.004
$\alpha_{18}$	BalmerLawrie& Co. Ltd.	2.943	.656	4.487	.000
$\alpha_{19}$	BalrampurChini Mills Ltd.	.984	.656	1.501	.134
$\alpha_{20}$	Berger Paints India Ltd.	.376	.656	.574	.566
$\alpha_{21}$	Bharat Electronics Ltd.	.707	.656	1.077	.282
$\alpha_{22}$	Bharat Forge Ltd.	.340	.656	.518	.605
$\alpha_{23}$	Bharat Heavy Electricals Ltd.	.612	.656	.933	.352
$\alpha_{24}$	Bharat Petroleum Corpn. Ltd.	.348	.656	.531	.595
$\alpha_{25}$	Bhushan Steel Ltd.	5.937	.656	9.052	.000
$\alpha_{26}$	Birla Corporation Ltd.	1.521	.656	2.319	.021
$\alpha_{27}$	Blue Star Ltd.	.643	.656	.980	.327
$\alpha_{28}$	Bombay Dyeing & Mfg. Co. Ltd.	2.921	.656	4.455	.000
$\alpha_{29}$	Bosch Ltd.	.241	.656	.367	.713
$\alpha_{30}$	Britannia Industries Ltd.	-.187	.656	-.286	.775
$\alpha_{31}$	C E S C Ltd.	2.315	.656	3.530	.000
$\alpha_{32}$	Castrol India Ltd.	-.319	.656	-.486	.627
$\alpha_{33}$	Century Textiles &Inds. Ltd.	1.682	.677	2.483	.013
$\alpha_{35}$	Chambal Fertilisers& Chemicals Ltd.	1.563	.656	2.383	.018
$\alpha_{36}$	Chennai Petroleum Corpn. Ltd.	2.239	.656	3.415	.001
$\alpha_{37}$	Cipla Ltd.	-.200	.656	-.306	.760
$\alpha_{38}$	Clariant Chemicals (India) Ltd.	-.527	.707	-.745	.457
$\alpha_{39}$	Colgate-Palmolive (India) Ltd.	-.217	.656	-.330	.741
$\alpha_{40}$	Container Corpn. Of India Ltd.	.354	.656	.539	.590
$\alpha_{41}$	Coromandel International Ltd.	1.783	.656	2.718	.007
$\alpha_{42}$	Crompton Greaves Ltd.	1.419	.656	2.164	.031
$\alpha_{43}$	Cummins India Ltd.	-.162	.658	-.247	.805
$\alpha_{44}$	Dabur India Ltd.	-.734	.666	-1.102	.271
$\alpha_{45}$	Dr. Reddy'S Laboratories Ltd.	-.159	.656	-.242	.809
$\alpha_{46}$	E I D-Parry (India) Ltd.	2.760	.656	4.208	.000
$\alpha_{47}$	Eicher Motors Ltd.	.777	.656	1.185	.237
$\alpha_{48}$	Electrosteel Castings Ltd.	.696	.657	1.060	.290
$\alpha_{49}$	Escorts Ltd.	1.477	.656	2.252	.025
$\alpha_{50}$	Exide Industries Ltd.	.700	.656	1.067	.287

<i>Coefficient</i>	<i>Company Name</i>	<i>Value of Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>Sig Level</i>
$\alpha_{51}$	Force Motors Ltd.	.370	.656	.565	.573
$\alpha_{52}$	GAIL (India) Ltd.	.718	.656	1.095	.274
$\alpha_{53}$	Glaxosmithkline Consumer Healthcare Ltd.	-.088	.656	-.133	.894
$\alpha_{54}$	Godfrey Phillips India Ltd.	.260	.656	.397	.691
$\alpha_{55}$	Grasim Industries Ltd.	.812	.656	1.237	.217
$\alpha_{56}$	Great Eastern Shipping Co. Ltd.	1.653	.656	2.520	.012
$\alpha_{57}$	Greaves Cotton Ltd.	3.146	.656	4.795	.000
$\alpha_{58}$	Gujarat Alkalies & Chemicals Ltd.	4.866	.656	7.419	.000
$\alpha_{59}$	Gujarat Narmada Valley Fertilizers Co. Ltd.	1.739	.656	2.652	.008
$\alpha_{60}$	Gujarat State Fertilizers & Chemicals Ltd.	5.717	.656	8.717	.000
$\alpha_{61}$	HCL Infosystems Ltd.	.306	.657	.465	.642
$\alpha_{62}$	Havells India Ltd.	.115	.656	.176	.861
$\alpha_{63}$	Hero Honda Motors Ltd.	-.361	.657	-.550	.582
$\alpha_{64}$	Hindalco Industries Ltd.	.551	.656	.840	.402
$\alpha_{65}$	Hindustan Construction Co. Ltd.	1.295	.656	1.973	.049
$\alpha_{66}$	Hindustan Petroleum Corpn. Ltd.	.590	.656	.899	.369
$\alpha_{67}$	Hindustan Unilever Ltd.	-.812	.663	-1.224	.221
$\alpha_{68}$	Hindustan Zinc Ltd.	1.364	.656	2.080	.038
$\alpha_{69}$	Housing Development Finance Corpn. Ltd.	-.230	.657	-.350	.727
$\alpha_{70}$	ITC Ltd.	-.116	.656	-.176	.860
$\alpha_{71}$	IVRCL Infrastructures & Projects Ltd.	1.595	.656	2.432	.015
$\alpha_{72}$	India Cements Ltd.	1.100	.656	1.678	.094
$\alpha_{73}$	Indian Hotels Co. Ltd.	.662	.656	1.010	.313
$\alpha_{74}$	Indian Oil Corpn. Ltd.	.688	.656	1.048	.295
$\alpha_{75}$	Indo Rama Synthetics (India) Ltd.	2.128	.656	3.244	.001
$\alpha_{76}$	Infosys Technologies Ltd.	-.279	.656	-.425	.671
$\alpha_{77}$	J S W Steel Ltd.	1.512	.656	2.305	.022
$\alpha_{78}$	Jindal Poly Films Ltd.	3.550	.656	5.413	.000
$\alpha_{79}$	Jindal Saw Ltd.	1.071	.656	1.633	.103
$\alpha_{80}$	Jubilant Life Sciences Ltd.	1.891	.656	2.883	.004
$\alpha_{81}$	Kansai Nerolac Paints Ltd.	.759	.656	1.158	.248
$\alpha_{82}$	Kesoram Industries Ltd.	2.439	.656	3.718	.000
$\alpha_{83}$	Kirloskar Industries Ltd.	4.877	.656	7.437	.000
$\alpha_{84}$	LIC Housing Finance Ltd.	1.736	.656	2.647	.008
$\alpha_{85}$	Lakshmi Machine Works Ltd.	2.357	.656	3.593	.000
$\alpha_{86}$	Larsen & Toubro Ltd.	.379	.656	.578	.563
$\alpha_{87}$	Lupin Ltd.	.693	.656	1.057	.291
$\alpha_{88}$	MRF Ltd.	1.049	.656	1.600	.110
$\alpha_{89}$	Madras Cements Ltd.	.421	.656	.642	.521
$\alpha_{90}$	Mahanagar Telephone Nigam Ltd.	.638	.656	.973	.331
$\alpha_{91}$	Maharashtra Seamless Ltd.	.895	.656	1.365	.173
$\alpha_{92}$	Mangalore Refinery & Petrochemicals Ltd.	.607	.656	.925	.355

<i>Coefficient</i>	<i>Company Name</i>	<i>Value of Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>Sig Level</i>
$\alpha_{93}$	Marico Ltd.	.048	.656	.073	.942
$\alpha_{94}$	Micro Inks Ltd.	.160	.656	.244	.808
$\alpha_{95}$	Moser Baer India Ltd.	.326	.656	.496	.620
$\alpha_{96}$	Mukand Ltd.	6.942	.656	10.578	.000
$\alpha_{97}$	Nagarjuna Fertilizers & Chemicals Ltd.	4.092	.656	6.240	.000
$\alpha_{98}$	National Aluminium Co. Ltd.	.562	.656	.856	.392
$\alpha_{99}$	Nestle India Ltd.	-.267	.656	-.406	.685
$\alpha_{100}$	Neyveli Lignite Corpn. Ltd.	2.285	.656	3.484	.001
$\alpha_{101}$	Nirma Ltd.	.055	.656	.084	.933
$\alpha_{102}$	Oil & Natural Gas Corpn. Ltd.	.821	.656	1.252	.211
$\alpha_{103}$	Orchid Chemicals & Pharmaceuticals Ltd.	1.174	.656	1.790	.074
$\alpha_{104}$	Orient Paper &Inds. Ltd.	.612	.656	.934	.351
$\alpha_{105}$	P S L Ltd.	1.731	.656	2.638	.009
$\alpha_{106}$	Pidilite Industries Ltd.	.023	.656	.034	.973
$\alpha_{107}$	Piramal Healthcare Ltd.	-.006	.656	-.010	.992
$\alpha_{108}$	Ranbaxy Laboratories Ltd.	-.144	.656	-.220	.826
$\alpha_{109}$	Rashtriya Chemicals & Fertilizers Ltd.	2.438	.656	3.716	.000
$\alpha_{110}$	Raymond Ltd.	1.169	.656	1.783	.075
$\alpha_{111}$	Reliance Industries Ltd.	.134	.656	.204	.838
$\alpha_{112}$	Reliance Infrastructure Ltd.	.531	.656	.809	.419
$\alpha_{113}$	Ruchi Soya Inds. Ltd.	3.437	.656	5.240	.000
$\alpha_{114}$	S K F India Ltd.	.034	.675	.051	.960
$\alpha_{115}$	S Kumars Nationwide Ltd.	3.632	.656	5.535	.000
$\alpha_{116}$	S R F Ltd.	2.097	.656	3.197	.001
$\alpha_{117}$	Satyam Computer Services Ltd.	-.748	.667	-1.122	.262
$\alpha_{118}$	Sesa Goa Ltd.	1.759	.656	2.682	.008
$\alpha_{119}$	Shipping Corpn. Of India Ltd.	2.216	.656	3.378	.001
$\alpha_{120}$	Shriram Transport Finance Co. Ltd.	2.369	.656	3.611	.000
$\alpha_{121}$	Sical Logistics Ltd.	4.430	.656	6.755	.000
$\alpha_{122}$	Siemens Ltd.	.005	.656	.007	.994
$\alpha_{123}$	Steel Authority Of India Ltd.	1.112	.656	1.696	.091
$\alpha_{124}$	Sterlite Industries (India) Ltd.	1.512	.656	2.303	.022
$\alpha_{125}$	Sun Pharmaceutical Inds. Ltd.	-.161	.656	-.246	.806
$\alpha_{126}$	Sundram Fasteners Ltd.	.347	.656	.529	.597
$\alpha_{127}$	Supreme Industries Ltd.	1.520	.656	2.317	.021
$\alpha_{128}$	T V S Motor Co. Ltd.	.224	.656	.342	.733
$\alpha_{129}$	Tata Chemicals Ltd.	1.777	.656	2.710	.007
$\alpha_{130}$	Tata Communications Ltd.	.585	.661	.886	.376
$\alpha_{131}$	Tata Global Beverages Ltd.	.344	.656	.525	.600
$\alpha_{132}$	Tata Power Co. Ltd.	1.557	.656	2.374	.018
$\alpha_{133}$	Thermax Ltd.	1.503	.656	2.291	.022
$\alpha_{134}$	Titan Industries Ltd.	.317	.656	.483	.629

<i>Coefficient</i>	<i>Company Name</i>	<i>Value of Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>Sig Level</i>
$\alpha_{135}$	Tube Investments Of India Ltd.	2.025	.656	3.087	.002
$\alpha_{136}$	Uniphos Enterprises Ltd.	2.293	.656	3.497	.001
$\alpha_{137}$	Usha Martin Ltd.	3.533	.659	5.364	.000
$\alpha_{138}$	Vardhman Textiles Ltd.	3.394	.656	5.176	.000
$\alpha_{139}$	Voltas Ltd.	.699	.656	1.065	.287
$\alpha_{140}$	Wipro Ltd.	-.368	.656	-.560	.576
$\alpha_{141}$	Wockhardt Ltd.	-.088	.656	-.135	.893
$\alpha_{142}$	Zuari Industries Ltd.	4.550	.657	6.930	.000
$\alpha_{2008}$		-.014	.038	-.368	.713
$\alpha_{2009}$		.489	.040	12.078	.000
$\alpha_{2010}$		.005	.038	.119	.905
$\beta_0$		-.030	.007	-4.223	.000
$\beta_1$		-.043	.007	-6.111	.000
$\beta_2$		-.018	.005	-3.473	.001

**Table A2 (a): Model Summary of Table A2**

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.888(a)	.788	.714	.31305