The information content of Cash Value Added (CVA) and P/E ratio: Evidence on association with Stock Returns for industrial companies in the Tehran Stock Exchange

Rezvan Hejazi[1], Malektaj Maleki Oskouei[2]

[1] Assistant Professor Faculty of Economic and Social Sciences Alzahra University
[2] M. A. Faculty of Economic and Social Sciences Alzahra University

Abstract

An accepted financial axiom is that the role of managers is to maximize the long terme wealth of shareholders by the efficient allocation of resources. In order to operationalize this objective, shareholder wealth is traditionally a proxy for either standard accounting procedures or financial ratios like as P/E ratio- which is broadly used by investors and analysts. Managers. shareholders and other interest parties then use this financial information to assess and examine their performance. Unfortunately one can not just rely on accounting based measures to explain changes in shareholder wealth.

A recent innovation in the field of internal performance measurement is the concept of Cash Value Added which is directly linked to the creation of shareholder value over time. This model only measures cash flow and is focused on the profitability of investment.

Pooled time- series data on 85 industrial companies of Tehran Stock Exchange over the period 1999 (1378)- 2003 (1382) is employed to examine the information content of Cash Value Added and P/E ratio.

Relative information content tests reveals Returns to be more closely associated with CVA than P/E ratio.

Incremental information content tests suggest that both of CVA and P/E ratio have explanatory power to each other.

Corresponding: Email: mtmoshouei@yahoo.com

Introduction

The main objective of investors is to maximize their expected return due to reducing its related risks. Therefore financial researchers and analysts are seeking a performance measurement which can predict a company's stock return more proportionally. One of the major efforts of accounting and financial researchers is to investigate factors and criteria which can predict stock returns approximately and determine relative and incremental information content of them respectively.

Accounting and finance professionals have long recognized that in the long run stock prices are roughly proportional to earnings and thus in the accounting literature the price (return)- earnings(pe)puzzle has formed [13]. The Price- Earnings Ratio uses a combination of external and internal sources of information and is most favored by security analysts and fund managers [25].

By passing time and developing accounting theory, researchers were tracing other criteria to replace EPS (Earnings Per Share), which operate better than. In 1991 AAA and other accounting researchers proposed to disclosure value added statement along with other financial statements. In recent years, the new concept of value added has been introduced as cash value added Because inflation deteriorate value added numbers in accrual accounting, the cash amount of company's wealth and the interfering factors who made the cash , became a noticeable matter [2].

Since for valuing company and measuring performance, there are economic-based and accounting-based models, in this research CVA and P/E ratio are respectively proxies of economic models and accounting models.

Research's main objectives

Stock return is widely accepted as the best measure of external value creation and the one to measure corporate performance .The internal measure of value creation and corporate performance are related to fundamental analysis. Doing stronger fundamental analysis results to measuring more accurate intrinsic value. Cash value added pinpoints the ability of value creation and performance measurement from an internal view and P/E ratio as a stock valuation model releases the other side of fundamental analysis framework.

As a result of preceding discussion, showing the probable correlation between cash value added (as an internal measure) and P/E ratio (as a mixed measure), Stock Returns (as a external measure) may be important for investors and decision makers. Also the use of cash value added makes stock market more informed and efficient.

The concept of Cash Value Added

In finance, a considerable amount of methodologies are used to analyze business and to measure their performance. There is consensus in literature that value creation is the single best measure of corporate performance [26]. A corporate manager must choose a framework that what determines value in the company? or in other words, how do the capital markets value the company?: Using P/E ratio, profit per share, ROCE, or discounted cash flow? The concept of value is complex in the eyes of many corporate managers and controllers.

Company's value is a function of investments, cash flow, economic life and capital cost. The mechanism which is used on the market to establish value using these four factors is called" discounted cash flow". And the objective of doing this is to be able to establish and execute strategies and investments that increase shareholder value [28].

The biases in accounting causes management to choose inappropriate investment strategies since management is influenced by their inaccurate perception of successful and unsuccessful businesses. Accounting systems, which have been used up until now, are insufficient and will not stand the challenge from the increasingly efficient capital markets and investors. The increased efficiency at the capital markets requires that capital allocation within companies become more efficient. Management needs a model that bridges the gap between measurements of historic financial performance and investment valuation, in order to make better strategic choices. The model must have the Value Based approach to measure discounted cash flow, since cash flow and time value of money determine value [21].

What we use today to follow up a company's profitability and value creation is inconsistent with the capital market's mechanism, and what the market considers determines value .That is why we have what is called Value Based Management (VBM) [23]. VBM seems to be a helpful guideline for a firm's decision- making. Furthermore, the emergence of VBM indicates that value creation has become a central issue for corporate management. Consequently, it's main objective is to identify and facilitate the maximum return on investment and to make sure that these returns always exceed the capital costs of an investment. Academics and especially consulting companies have developed a great number of performance metrics. One of the modern valuation practices in VBM system, which is used frequently, is Cash Value Added (CVA) [7].Cash value added as an internal measure is accompanied by the Total Shareholder Return (TSR) as the corresponding external figure.

Based on VBM concept, Ottosson and Weissenrieder defined CVA as follows:

"CVA (Cash Value Added) is a Net Present Value model that periodizes the Net Present Value calculations and classifies investments into two categories, Strategic and Non- Strategic Investments [30]. CVA only includes cash items, i.e. EBDIT adjusted for non- cash charges, working capital movement and non- strategic investments .The sum of those three items is the Operating Cash Flow (OCF). The OCF is compared with a cash flow requirement, "the Operating Cash Flow Demand" (OCFD).The OCFD represents the cash flow needed to meet the investor's financial requirements on the company's strategic investments. i. e. the capital cost. The difference between the OCF and the OCFD is the Cash Value Added- CVA [21].

The CVA discussed above has been developed in Sweden by Erik Ottosson and Fredrik Weissenrieder in 1996. It should not be confused with the Boston Consulting Group's Cash Value Added .Boston Consulting Group's CVA is a development of their Cash Flow Return On Investment (CFROI) concept. The two models are not similar in their foundations.

There are two ways to generate value, measured by Cash Value Added (CVA): by increasing Cash Flow Return on Investment and by growing Gross Investment base. Investment Growth will only produce value if profitability is above the weighted average cost of capital; unprofitable growth will destroy value [11]. CVA expresses residual income which is in cash and is calculated in two ways [10]:

(1) Direct calculation:

CVA = Gross Cash Flow- Economic Depreciation- Capital Charge

(2) Indirect calculation:

CVA= (CFROI- Cost of Capital) * Gross Investment

Capital charge: cost of capital * gross investment

CFROI = (Gross Cash Flow- Economic Depreciation)/ Gross Investment

Economic Depreciation = $[WACC/ (1+WACC)^n - 1]$* Depreciable Assets

Gross Cash flow = Adjusted profit + interest expense + depreciation

Gross Investment = Net Current Assets + Historical initial cost

Pablo Fernandez defines CVA as follows [16]:

$CVA_t = NOPAT_t + DEP_t + ED - (D_0 + Ebv_0) WAACC$

The CVA measure can easily be further decomposed into the key performance indicators (KPI 's) that are relevant to each management area. KPI's then form the basis for internal or external performance benchmarking and for establishing annual incentive targets.

Identifying priority KPI's and optimizing tradeoffs across them can be accomplished using the CVA measure [12].

Concept of the Price- Earnings Ratio (P/E ratio)

The P/E ratio has been described as the manner in which investors "collectively capitalize profits" [22]. It therefore represents a market consensus of the value of the earnings of a company and industry or the aggregate market. An alternative term for P/E ratio used by Reilly (1986) is that of Earnings Multiple [27].

P/E ratio is an Income- Statement Based method. According to this method, the equity's value is obtained by multiplying the annual net income by a P/E ratio [17].

Conceptual framework of P/E ratio is not based on economic theories [1]. Perhaps the simplest attempt to model the determinants of P/E ratio is the so- called Fed model. This model indicates that the fair value of the market P/E is the reciprocal of the ten- year Treasury Bond Yield [31]. A widely accepted share valuation model is one first proposed by Williams in 1938, which is based on the present value of expected future dividends [27]. Many previous studies of the determinants of P/E ratio use the Gordon constant growth theoretical valuation model (1962) as an expositional starting point.

In cross-section modeling of firm's P/E ratios such as Beaver and Morse (1978) dividend payout ratio, required return and growth rate in dividends are identified as important ones in explaining variation in P/E ratio across firms. In time series modeling of aggregate P/E ratios, researchers have attempted to investigate the factors driving fluctuations in P/E ratios. Researchers focus on inflation, previous-period earnings growth, role of market volatility [24].

Using P/E ratios is led to some competing investing theories. Capital market efficiency implies that all information is fully impounded in security prices in a rapid and unbiased fashion. Proponents of price- ratio hypothesis believe that price- earnings ratios are indicators of the future investment performance of a security. [8, 9]

Literature Review

Clinton and Chen selected a sample of 325 firms for the years 1991- 1995. Three new performance measures EVA, Cash Flow Return of Investment (CFROI) of BCG and Residual Cash Flow (RCF) are analyzed and evaluated to examine any association of them to Stock Returns. EVA and CFROI produced insignificant or inconsistent correlation with Stock Returns and there fore indistinguishable in their relative lack of contribution to assessing firm value [14].

Nichols in 1998 gives his analysis of the new measures in his work .He states that there is no magic formula which always captures the long- term impact of a business strategy on shareholder wealth. To ask weather EVA is better than CFROI is hard to answer. CFROI is very accurate but complex [18].

Pablo Fernandez analyzed world's 100 most profitable companies using Stock Return, CVA data provided by Stern Stewart. He found that the correlation between the Shareholder Return in 1994- 1998 and the increase in the CVA of BCG was 1.7% [15].

Noravesh and Mashayekhi examined the information content of EVA and CVA against Accounting Income and OCF during 1996-2002 in TSE. The results illustrated that EVA and CVA, in spite of lack of popular knowledge about them, could potentially enter in decision making process in market and sometimes declared incremental information content beyond other measures [6].

Noravesh and Heidari examined the information content of CVA against Operating Profit (OP) and operating cash flow(OCF) during 1999- 2003 in TSE within 110 companies .Results confirmed meaningful correlation between CVA and Stock Returns .Relative information content tests revealed Returns to be more closely associated with CVA than OCF. Incremental information content tests suggested that CVA adds more explanatory power to Returns than OP, OCF [4, 5].

The first work demonstrating the P/E ratio effect was a 3- page paper by Nicholson in 1960. He considered 100 mainly industrial stocks over 5 years period from 1939 to 1959.The portfolio of lowest P/E quintile stocks would have delivered an investor 14.7 times his original investment at the end of the 20 years as compared to 4.7 times for the highest P/E multiple [19].

In 1968, Nicholson extended his earlier work by looking at the earnings of 189 companies between 1937 and 1962. Dividing companies into 5 groups by P/E ratio, he found that average returns over 7 years was 131% for companies with a P/E below 10, decreasing almost monotonically to 71% for those with a P/E over 20 [20].

Basu's papers of 1975 and 1977 generally confirmed Nicholson's results. He examined the information content of P/E ratios in 1975 in NYSE between 1957 and 1971. Results reported that in accordance with the price-ratio hypothesis, trading at different multiples of earnings was neither completely unbiased, nor was the corrective action necessarily timely; on average information that was implicit in P/E ratios was not fully reflected in security prices in as rapid a manner as postulated by efficient market hypothesis [8].

Basu in 1977 examined the investment performance of common

stocks in relation to their price-earnings ratios during 1956 to 1971.in 500 industrial companies of NYSE. Results illustrated that P/E ratios possess information content and may warrant investor's attention at the time of portfolio formation or revision [9].

Review the literature arose this questions:

1- Is there any correlation between CVA and Stock Returns?
2- Is there any correlation between P/E ratio and Stock Returns?
3- Among CVAand P/E ratio, which one is a good performance measure?
4- Which one of CVA and P/E ratio provides value relevance data beyond that provided by another?

To answer these questions, research hypothesis are composed as follows:

H_0 1: There is a meaningful correlation between CVA and Stock Returns.

H_02: There is a meaningful correlation between P/E ratio and Stock Returns.

H_03: The information content of CVA is equal to that of P/E ratio.

H_04: CVA does not provide information content beyond that provided by the P/E ratio.

Empirical Methodology

The objective of this research is to examine the correlation between dependent and independent variables. Assuming that equity markets are efficient (weak form in Iran), Stock Returns may be used to compare the information content of performance measures in a regression based approach. Both relative and incremental information content comparisons are made [29].

The first methodological requirement is to specify the sample selection method. Data base included 270 industrial companies in TSE during march 1999 to march 2003; This period is the prosperity of TSE and company's stocks are actually traded. For any given year under consideration, four criteria were used in selecting sample firms (i) the fiscal year- end of the firm is March 20 (Esfand 29), (ii) the firm according to the TSE conditions is actually traded, (iii) the relevant data are not missing, (iv) for calculating P/E ratio, the firm must be profitable.

In final 85 industrial companies listed in Tehran Stock Exchange (TSE) are selected as sample.

The second methodological requirement is to specify collecting data and calculating variables. All the data used in this research are gathered from financial statements, Tadbir Pardaz and Sahra softwares and TSE archive.

CVA and P/E ratio are independent and Stock Returns is dependent

variables.

Because of the information gathering limitations, CVA is calculated as follows:

CVA= Operating Cash Flow- Paid Taxes- (Paid Interests + Dividends)

P/E RATIO is calculated by dividing "current price per share at the end of the fiscal year" by "EPS from its last published financial statements".

Stock Returns is computed from TSE archive.

The third methodological requirement is to specify the models used to calculate the relative and incremental content of the CVA and P/E ratio. The models that relate independent variables to stock returns are used to examine the hypothesis. For this reason, econometrics models are used .In econometrics when data are collected in common years and common companies, the panel is used and data are analyzed by time series- cross section regression model. In analyzing data by OLS regression model, researcher can't generalize each year's results. There are different methods of pooling panel data. In this research a random-effect model is preferred, that assumes that the coefficients are random variables drawn from some larger population. E- views software analyzed statistical data. Equation below shows the firm valuation model:

$$Y_{i,t} = \beta_0 + \beta_1 X_{1\,i,t} + \beta_2 X_{2\,i,t} + \ldots + \beta_k X_{k\,i,t} + \varepsilon_{i,t}$$

i: the number of company, t :time period, k: independent variable

Research hypothesis are examined using the above model. In this study, the independent variable is normalized by Kolmogrov- Smirnov test. To reduce heteroskedasticity in firm- level data , White's (1980) heteroskedastic- consistent standard errors and covariance estimator is also employed, along with an equivalent correction for time- wise auto correlation in the pooled time series- cross sectional least squares regression . Considering above, following models are drawn:

(1) $\text{Ln}\,(R_{i,t}) = \beta_0 + \beta_1 \Delta CVA_{i,t} + \varepsilon_{i,t}$

(2) $\text{Ln}\,(R_{i,t}) = \beta_0 + \beta_1 \Delta P/E_{i,t} + \varepsilon_{i,t}$

(3) $\text{Ln}\,(R_{i,t}) = \beta_0 + \beta_1 \Delta P/E_{i,t} + \beta_2 \Delta CVA_{i,t} + \varepsilon_{i,t}$

(4) $\text{Ln}\,(R_{i,t}) = \beta_0 + \beta_1 \Delta CVA_{i,t} + \beta_2 \Delta P/E_{i,t} + \varepsilon_{i,t}$

The first set of tests is joint hypothesis tests of equation 1, 2. These equations test correlation between CVA and P/E ratio with Stock Returns. Comparisons of the adjusted R^2 of the regression results of models number 1, 2 are made to determine which variable better

explains Stock Returns. Rejection of this hypothesis is viewed as evidence in relative information content.

The second set of tests indicates whether one of these predictors of firm value provides value- relevance data beyond that provided by another measure. Rejection of this hypothesis is viewed as evidence of incremental information content. Taking the adjusted R^2 from this pairwise regression and subtracting the individual R^2 obtained in the earlier univariate regression, yields the incremental information content [29].

Selected descriptive statistics for variables are given in table 1.

Empirical Results

Table 2 provides the estimated coefficients, standard errors, t-statistics, probability of them. An assumption of a linear relationship between these variables are made. All the firm valuation models are tested for multicollinearity (auto correlation and heteroskedasticity having being corrected in the estimation techniques). Auto correlation is controlled by (AR) variable.

The significance of the estimated coefficients in table 2 suggests that both CVA and P/E are positively associated with market returns over the period 1999- 2003. The estimated slope coefficients are significance at 0.05 level.

This findings holds even when a pairwise combination of performance measures are specified in the same regression. The summary results of these regressions in the form of relative and incremental information content tests are presented in table 3, 4. Adjusted R^2 from these regressions are provided in table 3.

Table 3 indicates that there is a difference in relative information content. The highest adjusted R^2 from the single coefficient regression is shown on the left. The suggestion is that CVA better explains Stock Returns than does P/E ratio .In this study the relative information content of CVA is more than P/E ratio. Comparing adjusted R^2 indicates that there is not much difference between them and by different time- period and sample selection may change.

The results in table 4 are also based on 3, 4 equations and provide incremental information content tests for the pairwise combinations of CVA and P/E ratio. For example CVA/P/E (0.026675) is equal to the information content of pairwise comparison of CVA and P/E (0.068757) minus the information content of P/E (0.042082). The pairwise combinations of CVA and P/E indicates that explanatory power has increased over the one of them alone .Over all, the results indicate that CVA exhibits the larger relative information content and provides incremental information content beyond P/E ratio.

The procedure used to carry out sensitivity of adjusted R^2 in

equation 3, 4 are as follows:

$$\Delta F = \frac{\Delta R^2 / m\text{-}k}{(1\text{-} R^2_{1,2,\ldots,k,\ldots,m})/ N\text{-} m\text{-}1}$$

$$\Delta R^2 = R^2_{1,2,\ldots,k,\ldots,m} - R^2_{1,2,\ldots,k}$$

N: sample number, k< m k, m: number of independent variables

F- ratio tests significance of adjusted R^2s before and after interfering independent variables. The null hypothesis states that R^2_1 is equal to R^2_2 .The rejection of null hypothesis indicates that there are significant difference between before and after of interfering independent variable in equation. Table 5 presents F- ratio results and rejection of null hypothesis.

Table 1: Descriptive Statistics of Variables Employed in the Valuation Models

This table provides descriptive statistics for Annual Stock Returns, CVA, P/E ratio as specified in the valuation models over the period 1999 to 2003. CVA is scaled by the total assets of the firm.

Variable	Mean	Std. Dev	Skewness	Kurtosis
CVA	0.0134	0.1179	-0.290	1.035
P/E ratio	6.64	4.564	2.4147	7.851
Stock Return	76.99	93.310	2.0628	7.940
Ln (R)	4.70	0.7011	-0.7472	2.2114

Table 2: Part 1- Statistical results of the first hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	4.560949	0.046229	98.66012	0.0000
CVA	0.750524	0.297272	2.524704	0.0121
AR(1)	0.17046	0.055836	3.052854	0.0025
Mean dependent variable	4.598638			
S. D. dependent variable	0.677725			
Sum squared residual	140.3822			
Durbin- Watson statatistics	2.001056			

Part 2: Statistical results of the second hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	4.418044	0.07897	55.9457	0.0000
P/E RATIO	0.02214	0.010125	2.186612	0.0295
AR(1)	0.161711	0.05922	2.730696	0.0067
Mean dependent variable	4.610765			
S. D. dependent variable	0.66186			
Sum squared residual	135.9585			
Durbin- Watson statistics	1.867417			

Table 3: Part 1- Statistical results of equation 1, 2

Model	No.1	No.2
R-squared	0.050817	0.047959
Adjusted R- squared	0.044885	0.042082
S.E. of regression	0.66234	0.647785
F-statistic	8.566047	8.160671
Prob (F- statistic)	0.0002	0.0003

Part 2: Relative Information Content for firm valuation model

CVA		P/E
4.48%	>	4.2%

Table 4: Incremental Information Content for firm valuation model

CVA / P/E		P/E / CVA
2.66%	>	2.38%

Table 5: F- ratio test results

Adjusted R-squared Model	Crucial F-statistics	ΔF	result
No.3	3.84	9.10906	Rejection of null hypothesis
No.4	3.84	8.151891	Rejection of null hypothesis

The summary results of statistical test are given in table below

Hypothesis	title	result
No.1	H_0: There is a correlation between CVA and Stock Returns . H_1: There is not a correlation between CVA and Stock Returns	H_0
No.2	H_0: There is a correlation between P/E ratio and Stock Returns. H_1: There is not a correlation between P/E ratio and Stock Returns	H_0
No.3	H_0: The information content of CVA is equal to that of P/E ratio. H_1: The information content of CVA is not equal to that of P/E ratio.	H_1
No.4	H_0: CVA does provide information content beyond that provided by the P/E ratio. H_1: CVA does not provide information content beyond that provided by the P/E ratio	H_0

Conclusion Remarks

A number of points emerge from the present study. The first set of the analysis evaluate the correlation of CVA and P/E ratio with Stock Returns. Results indicate that CVA has explanatory power to explain Stock Returns. Since CVA is a financial measure which most of decision makers are not familiar with, that can only explain 4.5% variation in Stock Returns. Although P/E ratio is used vastly by investors, the results of second hypothesis did not show powerful correlation with Stock Returns. P/E ratio can only explain 4.2% variation in Stock Returns. Previous studies in Iran also have examined the correlation of CVA and P/E ratio with Stock Returns.

Hormozi's study in 2001 indicated that there is no relation between P/E ratio and Stock Returns. Hadizadeh in his research illustrates that in spite of correlation between P/Eratio and Stock Returns, the adjusted R^2 is low Mashayekhi and Heidari found that CVA has correlation with Stock Returns.

The measure of relative information content indicates that over the period 1999- 2003, CVA better explains variation in Stock Returns than P/E ratio does respectively. Research's about Iran's Stock Market Efficiency illustrates that is not efficient even in weak form [3]. Then obtaining abnormal return in this market is expectable. This study shows that P/E ratio contains information content.

The measure of incremental information content indicates that CVA adds more explanatory power to P/E ratio than vice versa.

There are at least three ways in which this research may be extended. First limitation in this study is that in the calculation of paid taxes in CVA formula, the whole paid taxes is substituted with operating paid taxes. The second limitation is that, tax rules changed in 2001 that affects on EPS calculations. For congruence in results, all the EPS figures in Tadbir- Pardaz software are used without any

changes. Finally, some stocks are often traded during year and other are not. This affects company's stock performance. But Stock Returns of all firms are calculated in the same manner.

An avenue for future research suggested by the findings of this study is:

(i) to examine research hypothesis by non-linear- regression models, (ii) to investigate CVA prediction power in predicting Earnings, (iii) to examine the correlation of abnormal Stock Return with CVA, (iv) to test the information content of other value- based measures and P/E ratio .

«   » .(   ) .   .

                                    .

                                » .(   ) .

                    «

                    .

        «   » .(   ) .

                                    .

            » .(   ) .
«   CVA

                        .

        » .(   ) .
                            :

                                        «

.

» .(   ).

.   «

7- Ameels, A. et al. (2002). "Value Based Management: An Integrated Approach to Value Creation. A Literature Review", Vlerick Leuven Gent Management School Working Paper.

8- Basu, S. (1975). "The Information Content of Price- Earnings Ratios", Financial Management, Vol 4 No 2, pp. 53- 64.

9- Basu, S. (1977). "Investment Performance of Common Stocks in Relation to their Price- Earnings Ratios: A Test of the Efficient Market Hypothesis, The Journal Of Finance, Vol. 32 No. 3, pp.663 682.

10-Boston Consulting Group, (2000). "New Perspectives On Value Creation: A Study of the Worlds' Top Performers" , http:// www. bcg.com, pp. 7, 8, 49- 53.

11-Boston Consulting Group, (2001). "Dealing With Investors' Expectations: A Global Study of Company Valuation and their Strategic Implications", http://www.bcg.com, pp. 5- 19, 23- 25, 64 - 66 .

12-Boston Consulting Group, (2003). "Back to Fundamentals: Value Creators Report", http:// www.bcg.com, pp. 18- 20, 38, 39, 79- 81.

13-Chiarella, C.; Shenhuai, G. (2002). "Solving the Price- Earnings Puzzle", Working Paper No.116, School of Finance and Economics University of Technology of Sydney, ISSN: 1036-7373, http://www.business.uts.edu.au/finance/, pp. 1, 2, 9, 11.

14-Clinton, B. D. and Chen, S. (1998). "Do New Performance Measures Measure Up? "Management Accounting, Vol. 80, No. 4, pp. 38- 43 .

15-Fernandez, P. (2001). "EVA, Economic Profit and Cash Value Added Do Not Measure Shareholder Value Creation, "SSRN Working Paper No 270799.

16- Fernandez, P. (2003). "Three Residual Income Valuation Methods And Discounted Cash Flow Valuation", Research Paper NO. 487, http: //www.iese.edu/ciif.

17- Fernandez, P. (2004). "Company Valuation Methods, The Most Common Errors In Valuation", Working Paper No 449, http:// www.iese.edu/ciif.

18- Nichols, P. (1998). "Unlocking Shareholder Value (Company Financial Analysis) " , Management Accounting (British) October.

19- Nicholson, S. F. (1960)."Price- Earnings Ratios", Financial Analysts Journal, Vol. 16, No. 4, pp. 43- 45.

20- Nicholson, S. F. (1968)."Price- Earnings Ratios in Relation to Investment Results", Financial Analysts Journal, Vol. 24, No. 1, pp. 105- 109.

21- Ottosson, E. and Weissenrieder, F. (1996). "Cash Value Added- Anew Method for Measuring Financial Performance", Gothenburg Studies in Financial Economics, Study NO: 1, Available at SSRN- ID 58436, pp. 2- 7.

22- Peavy, J. W. and Goodman D. A. (1985). "How Inflation, Risk and Corporate Profitability Affect Common Stock? "Financial Analysts Journal, Vol. 41, No. 5, pp. 59- 65.

23- Seisreiner, A.; Trager, S. (2006). "Value Based Management and the Multidimensionality of Value", HRM Review Management Magazine, Paper 41, icfai university press, http:// www. icfaipress. org, pp. 5, 6 .

24- Shamsuddin, Abul. F. M., Hillier, J. R. (2004). "Fundamental Determinants of the Australian Price- Earnings Multiple", Pacific- Basin Finance Journal, Vol. 12, pp. 565- 576.

25- Simon, J. (1999). "Company Valuation and Performance Measurement", Student Accountant, http://www.accaglobal.com/publications.

26- Value Analytix. (2006). "Strenght And Weaknesses", http ://www. valueanalytix. com, pp. 1, 9, 10, 11.

27- Ward, M. and Stathoulis, J. (1994). "An Anlysis of the Price/ Earnings Ratio of the Industrial Sector of the JSE", The Investment Analysts Journal, Vol. 38, pp. 37 -42.

28- Weissenrieder, F. (1997). "Value Based Management: Economic Value Added or Cash Value Added?", Gothenburg Studies in Financial Economics, Study NO: 3, Available at SSRN- ID 156288, pp. 3- 6, 39.

29- Worthington, A. C. and West, T. (2004). "Australian Evidence Concerning the Information Content of Economic Value Added", "Australian Journal of Management", Vol. 29, No. 2, pp. 201- 220.

30- www .sca.com /investors/cva- theory. asp, pp 1- 3.

31- Yardeni, E. (2003). "Stock Valuation Methods", Prudential Financial Research, Topical Study No 58, pp.2 -30 .