

Asian Resonance

Relation Between Economic Value Added and Share Prices of Selected Indian Bank (Axis Bank and ICICI Bank)

Abstract

The concept of Economic Value Added (EVATM) has been propounded as an economic measure of the extent to which a company adds value to shareholders' wealth. Many Indian banks are discerning the key to their long-term progression does not fit in products and services only but in resources that can never be simulated, that is, their unique and distinctive relationship with employees, investors and the community they assist. The main focus of study is to define the shareholders' value (in reference of Economic Value Added) of private sector banks from 2009 to 2012. Axis bank has high EVA in comparison to ICICI bank and other private sector banks. Both the banks (Axis bank & ICICI bank) have lower coefficient of determination between EVA and Share price during the study period. EVA and Share price of Axis Bank is insignificantly correlated but ICICI Bank has low correlation between them.

Keywords: Determination, Comparison, Investors.

Introduction

Value creation, today, for a competitive advantage and to have edge over other - is a widely accepted business objective over profit maximization and wealth maximization. Value is created when all the stake holders perceive a significant difference in quality or benefits, with the result that the offer is capable of commanding a premium relative to competitors offer.

Indian banking has gone through many changes in the last epoch like burden of prudential standards, greater antagonism among banks, etc. This archetype shift in the Indian banking sector is shown in two dimensions: First, it relates to operational facet especially performance and risk-management system and the second one is very important dimension that relates to structural and external environment. Traditionally the methods of measurement of corporate performance are many. Common bases used are: - Net Profit Margin (NPM), Operating Profit Margin (OPM), Return on Investment (ROI), Return on Net Worth (RONW) etc. Profit after Tax (PAT) is an indicator of profit available to the shareholder and Profit before Interest after Tax (PBIAT) is an indicator of the surplus generated using total funds. ROI is still recognized as the most popular yardstick of profitability measurement. Although these financial data have the advantage of being precise and objective, the limitations are far greater, making them less applicable in today's competitive market. For evaluation of the efficiency of any decision, value creation or value addition aspect is of utmost importance in the present backdrop of corporate governance. In order to maximize shareholder value, decisions must be made as to how best to allocate capital, how to evaluate investment opportunities and how to measure performance.

EVA enables the management to; invest in projects that are critical to shareholder's wealth. This will lead to an increase in the market value of the company. However, activities that do not increase shareholders value might be critical to customer's satisfaction or social responsibility. For example, acquiring expensive technology to ensure that the environment is not polluted might not be of high value from a shareholder's perspective.

Bhawana Johri

Assistant Professor,
Deptt. of Applied Business Economics,
Faculty of Commerce,
Dayalbagh Educational Institute
(Deemed University)
Dayalbagh, Agra

Asian Resonance

Eva: An Overview

Economic Value Added (EVA) is a comprehensive measure of operating performance. It measures the change in financial worth of an enterprise from one year to the next. It is a more comprehensive financial measurement tool than net income (revenues minus expenses) alone, because it includes the cost of the capital used to generate that income.

The conception of Economic Value Added was given by a New York based consulting firm M/s Stern Stewart & Co in 1980. The corporate sector in India recognized the prominence of EVA as a result, Indian companies also started conniving EVA. Infosys Technologies Ltd was the first Indian company to show its EVA in the annual report. EVA tries to calculate true economic profit as it compares actual rate of return with the required rate of return. To make it simple, EVA is the difference of Net Operating Profit After Tax (NOPAT) and the capital charge for both debt and equity (WACC- Weighted Average Cost of Capital). If NOPAT exceeds the capital charge (WACC), then EVA is positive and if it is less than capital charge, EVA is negative.

Definition

"A company can best maximize wealth by leveraging its most distinctive and proprietary assets - the talent, ingenuity, and energy of its people. That's what EVA does, and that's what makes it so powerful..."

— Joel M. Stern, CEO, Stern Stewart & Co., 1995

In corporate finance —Economic Value Added or EVA is an estimate of economic profit, which under US accounting can be determined, among other ways, by after making corrective adjustments to GAAP accounting, including deducting the opportunity cost of equity capital

In simple words EVA is —"The monetary value of an entity at the end of a time period minus the monetary value of that same entity at the beginning of that time period."

What separates EVA from other performance metrics such as EPS, EBITDA, and ROIC is that it

Measures all of the costs of running a business—operating and financing.

Reckoning of Eva

While computing EVA, capital employed represents capital invested at the beginning of the year. The logic behind taking beginning capital for computing EVA is that a company would take at least one year time to earn a return on investment. It may be mentioned here that calculation of EVA involves some tricky issues. Each element of EVA, therefore, has been discussed individually. EVA requires three different inputs for its computation. (A) NOPAT (Net Operating Profit after Tax) (B) Invested Capital (C) Weighted Average Cost of Capital (WACC).

$EVA = NOPAT - (WACC \times \text{Invested Capital})$

For Net Operating Profit After Tax (NOPAT)

Stewart (1991) defined NOPAT as the "Profits derived from company's operations after taxes but before financing costs and non-cash book keeping entries. Such non-cash book keeping entries do not include depreciation since depreciation is considered as a true economic expense. In other words, NOPAT is

equal to the income available to shareholders plus interest expenses (after tax).

For Invested Capital / Capital Employed

Invested capital or capital employed refers to total assets net of non-interest bearing liabilities. From an operating perspective, invested capital can be defined as Net Fixed Assets plus Investments plus Net current assets. Net current assets denote current assets net of non-interest bearing current liabilities. From a financing perspective, the same can be defined as Net Worth plus total borrowings. Total borrowings denote all interest bearing debts

For Weighted Average Cost of Capital (WACC)

For calculating WACC, cost of each source of capital is calculated separately then weights are assigned to each source on the basis of proportion of a particular source in the total capital employed. Weights can be assigned on market value basis or book value basis. Stewart suggested market value basis. WACC can be calculated as below:

$$WACC = E/CE \times Ke + LTB/CE \times Kd$$

Where: E = Equity Capital,

Ce = Capital Employed,

Ltb = Long Term Borrowings,

Ke = Cost Of Equity Capital,

Kd = Cost Of Debt Capital .WACC Includes Two

Specific Costs Viz.,

(i) Cost of Equity (Ke), (II) Cost Of Debt (Kd).

Important Features and Advantages of EVA Approach

1. It acts as performance measure which is linked to share holder value creation in all directions.
2. It is useful in providing business knowledge to everyone.
3. It is an efficient method for communicating to investors.
4. It transforms the accounting information into economic quality which can be easily understood by non financial managers.
5. It is useful in evaluating Net Present Value (NPV) of projects in capital budgeting which is contradictory to IRR.
6. Instead of writing the value of firm in terms of discounted cash flow, it can be expressed in terms of EVA of projects.

Significance of EVA Implementation

First of all, most Japanese citizens have to acknowledge that they have become investors of companies through pension fund organization, although it may not have been their intention. This means that their pension fund has been operated in the stock market. The influence of the pension fund organization to the stock market is increasing every year, which indicates that they have significant power to the stock market. Under this current trend, it is highly necessary for investors to have a measurement to evaluate company values. EVA has great advantage that it does not show measurements by percentage point, unlike ROE and ROA, but with amount that investors are familiar with. Investors are able to understand the corporate value at a glance, and are able to see if their profit is above the expected investors return or not. This

Asian Resonance

is why I strongly recommend the implementation of EVA to Japanese companies

Share Price of Company

The market price per share of stock or the price per share of stock is a current measure of price not an accounting, or historical, measure of the value of stock like the book value per share, which is based on the information from a company's balance sheet. The market price per share is a financial metric that investors use to determine whether or not to purchase a stock. A company's worth - its total value - is its market capitalization, and it is represented by the company's stock price. Market cap (as it is commonly referred to) is equal to the stock price multiplied by the number of shares outstanding.

Intrinsic Stock Price

Intrinsic Stock Price is determined by dividing the Intrinsic Worth of the company by the total number of shares outstanding. It reflects the true price of the company's stock as of the date that the Intrinsic Worth is calculated. The Intrinsic Stock Price can therefore be compared to the Actual Stock Price of the company to determine whether the stock is undervalued or overvalued.

Actual Stock Price

Actual Stock Price refers to the closing market price of the company's stock as of the date that the Intrinsic Worth of the Company is calculated. Typically, this date is one of the fourth quarter-end dates during the year.

Latest Stock Price

Latest Stock Price refers to the latest available closing market price of the company's stock.

Stock prices are affected by many factors simultaneously, as they don't trade in vacuum. It is extremely difficult to enlist all the factors affecting the stock price; however a summary of factors can be presented.

I. External Constraints

1. Antitrust Law
2. International Rules and Regulations
3. Central Bank Reserve Policies
4. Employment Related Rules
5. Work and Product Safety Rules and Regulations
6. Environmental Regulations

II. Strategic Policy Decisions Controlled by Management

1. Types of Products or Services Produced
2. Production Method Used
3. R & D Efforts
4. Dividend Policy of Company
5. Use of Debt Financing and its Impact on Company
6. Long Term Investment Decisions and its Impact on Company

III. Level of Economic Activity of Company

1. Expected Cash Flow
2. Perceived Risk of Cash Flow
3. Timing of Cash Flow
4. Efficient and Effective Use of Corporate Assets

IV. Corporate Taxes

V. Impact of Various News On Share Price

VI. Perception Factor and Share Price

VII. Conditions in Financial Market

VIII. Customer Satisfaction Level Achieved By Company leads to generation of more cash flow in future.

X. Technology

1. Use of Technology to Reduce Cost, Reduce Inventory, and Produce Quality Goods or Services
2. Adapts Latest Technology to Remain Competitive

Management

1. Quality of Management
2. Perceived Image of Key Person of the Company by Investors
3. Employee Talent
4. Social Responsibilities Fulfillment by Management
5. Corporate Governance Rules Enforcement by Management
6. Ethics and Share Price

Eva and the Market Value of A Company

Theoretically EVA is much better than conventional measures in explaining the market value of a company. Financial theory suggests that the market value of a company depends directly on the future EVA-values:

The Market Value of A Company = Book Value of Equity + Present Value of Future EVA

The above formula is mathematically equivalent to the standard Discounted Cash Flow (DCF)

This means that the valuation of a company is similar to the valuation of a bond (premium if the coupon rate is more than the prevailing interest rate).

The Bigger Expected EVA the Company Has, the Bigger is the Market Value of the Company and the Stock Price.

Especially profitable growth (growth in EVA) gears up stock prices. Therefore companies like Intel, Microsoft and Nokia trade many times above their book values.

Stock prices reflect the future EVA expectations. Those expectations are very uncertain and continuously changing and thus also stock prices are volatile. Therefore it might be in short term difficult to see the underlying connection between EVA (financial performance) and stock prices. Long term perspective helps in this sense.

Review of Literature

Cyrus A. Ramezani , Luc A. Soenen ,Alan Robert Jung (2001): Growth, Corporate Profitability, and Shareholder Value Creation, they analyzed that firms with moderate growth in earnings (sales) show the highest rates of return and value creation for their owners.

Manoj Anand, Ajay Kumar Garg ,AshaArora (1999): Economic Value Added: Business Performance Measure of Shareholder Value, They studied, the rank correlation between economic profit (EP) and PAT, EP andMVA are statistically significant, but it is not substantial. There is a high degree of correlation between PAT andMVA. Hence, EVA, REVA and MVA are better measure of business performance in terms of shareholder value creation and competitive advantage of firm.

Prof. Ritesh Patel, Prof. Mitesh Patel (2011): Impact of Economic value added (EVA) on Share price: A study of Indian Private Sector banks, they determined

Asian Resonance

shareholders value (in terms of economic value added) of selected private sector banks during the last five years i.e. since 2004-05 to 2009-2010. Hypotheses were developed to test significant impact of EVA on stock price of bank & that hypothesis was tested by using ANOVAs. Some banks have no impact but has high coefficient of determinant in respect to share prices.

Objective of the Study

- To examine impact of EVA on share price of selected private sector banks.

Sample Design and Data

Sample Size

Two private sector bank named:

- AXIS BANK
- ICICI BANK

Duration of Study

2009 to 2012

Secondary Data

Annual reports, journals, publications of Stock exchange Board of India.

Hypothesis of the Study

H1: EVA of Axis Bank is equal to the EVA of ICICI Bank during study period.

H2: EVA and Share Price of selected banks are independent.

LEVEL OF SIGNIFICANCE: 5%

CRITICAL VALUE: 7.815

DEGREE OF FREEDOM: 3

Data Analysis

The data analysis was carried out by adopting basic statistics, Correlation & regression analysis:

	ICICI	AXIS
As on 31 st dec 2009	450	699.13
As on 31 st dec 2010	(549)	878
As on 31 st dec 2011	(837)	1133
As on 31 st dec 2012	(1032.97)	1434.71

Table1: Economic Value Added of Selected Banks (in Rs Crores)

Source: Reports of Attainix.Com

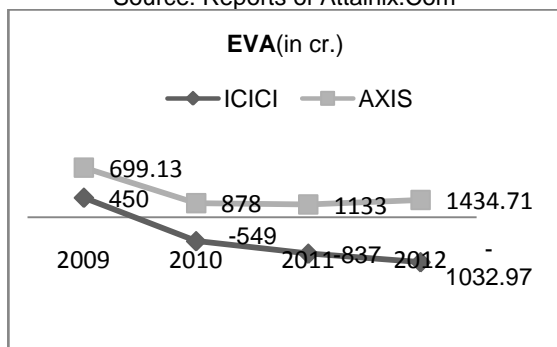


Table2: Share Price of Selected Banks (in Rs)

	ICICI	AXIS
As on 31 st dec 2009	875.70	988.70
As on 31 st dec 2010	1137.10	1329.35
As on 31 st dec 2011	684.80	832.30
As on 31 st dec 2012	1138.25	1356.55

Source: Moneycontrol.Com

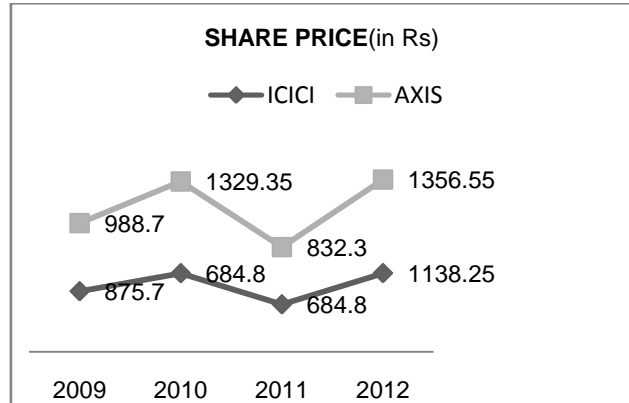


Table3: Calculation of Mean and Median of Eva and Share Prices

Particulars	ICICI BANK		AXIS BANK	
	Eva(Cr.)	Share Price(Rs.)	Eva(Cr.)	Share Price(Rs.)
MEAN	-492.24	958.96	1036.21	1126.72

Findings

Mean of Axis Bank is greater than ICICI Bank hence hypothesis H1 is rejected.

Table 4: Correlation Between Bank Eva & Bank Share Price in Selected Private Sector Banks

Correlation	Correlation Value
Correlation Between Axis Bank EVA & Axis Bank Share Price	.313
Correlation Between ICICI Bank EVA & ICICI Bank Share Price	(.208)

EVA and Share price of ICICI bank are insignificantly correlated and ICICI bank has low correlation between them.

Table 5: Coefficient of Determination

Banks	Coefficient of Determinant
ICICI Bank	0.114
Axis Bnk	0.099

The coefficient of determination equal to 0.114 indicates that about 11.4 % of the variation in Stock price of ICICI Bank (the dependent variable) can be explained by the relationship to EVA of ICICI Bank (the independent variable). Both Bank have low coefficient of determination between EVA and share price.

Hypothesis Testing

Calculation of Chi Square Based on Regression Analysis of Economic Value Added:

For ICICI Bank

Years	2009	2010	2011	2012
Share Price (Actual)	875.70	1137.1	684.8	1138.25
Share Price (Computed)	1131.01	1016.27412	983.192	960.682
Deviations (O-E)	255.31	120.83	-299.192	177.568

Calculated value of chi square=195.85

Table value of chi square= 7.815at 5%level (d.f. =3)

Asian Resonance

The regression equation for Y (Share Price) on X (EVA) is $Y=0.114865X+1079.335$.

For Axis Bank

Years	2009	2010	2011	2012
Share Price (Actual)	988.70	1329.35	832.3	1356.55
Share Price (Computed)	1127.16	1145.69	1171.17	1201.32
Deviations (O-E)	138.46	183.56	-338.87	155.23

Calculated value of chi square=164.50

Table value of chi square=7.815 at 5%level (d.f. =3)

The regression equation for Y (Share Price) on X (EVA) is $Y=0.099932X+1057.955$

Finding

The hypotheses study is done using chi square test. The calculated value of chi for Axis bank, ICICI Bank is 195.85 and 164.5 respectively. Both the calculated value of chi is greater than 7.815 which enhances that none of bank, has significant impact of EVA over their Stock Price. EVA can not be used to determine the share price of selected banks.

Conclusion

The Study was done to determine the shareholders value (in terms of Economic Value Added) of private sector banks during the last four years i.e. 2009-2012. Both the banks have lower coefficient of determination. The coefficient of determination equal to 0.114 indicates that about 11.4 % of the variation in Stock price of ICICI Bank (the dependent variable) can be explained by the relationship to EVA of ICICI Bank (the independent variable). This would not be considered a good fit to the data. The coefficient of determination equal to 0.099 indicates that 9.9% variation in Stock price of AXIS Bank (the dependent variable) can be explained by the relationship to EVA of AXIS Bank (the independent variable). This is

considered to be a bad fit to the data. The correlation between EVA and stock price for AXIS Bank is 0.313 which is somewhat positive in relation to the correlation between EVA and Market Value of ICICI Bank is (.208). EVA and Share price of ICICI bank are insignificantly correlated. The calculated value of chi for Axis bank, ICICI Bank is 195.85 and 164.5 respectively. Both the calculated value of chi is greater than 7.815 which enhances that none of bank, has significant impact of EVA over their Stock Price. EVA can not be used to determine the share price of selected banks.

References

1. Anand, Manoj, Garg, Ajay, and Arora, Asha (1999), "Economic Value Added: Business performance measure of shareholders' value", The Management Accountant, May 1999, pp. 351-356.
2. Banerjee, Ashok (1997), "Economic Value Added (EVA): A better performance measure", The Management Accountant, December 1997, pp. 886 – 888.
3. Banerjee, Ashok and Jain (1999), "Economic Value Added and Shareholder Wealth: An Empirical Study of Relationship", Paradigm, Vol. 3, No. 1, January-June, 1999, pp. 99-133
4. DebdaRakshit, (2006) EVA based performance measurement: A case study of dabur India limited, Vidyasagar University Journal of Commerce Vol.11, and March 2006.
5. Dr. Anil K. Sharma, Satish Kumar, Economic Value Added (EVA) (2010) - Literature Review and Relevant Issues, International Journal of Economics and Finance, Vol. 2, No. 2; May 2010.
6. www.moneycontrol.com
7. www.attainx.com
8. www.icici.com
9. www.axisbank.com
10. www.ssrn.com