



*International Journal of Current Research
and Academic Review*

ISSN: 2347-3215 Volume 1 Number 3 (2013) pp. 79-88

www.ijcrar.com



An Application Oriented Approach to Stock Investment

M.K.Singh^{1*} and Amit Kumar²

¹Vinoba Bhave University, Jharkhand, India

²Vinoba Bhave University, Jharkhand, India

*Corresponding author

KEYWORDS

Economic growth;
Stock Investment
Sector Bank;
Bank of Baroda;
analyzing the
financials;
Public Sector Bank
sensitivity.

A B S T R A C T

There are two structured research methods of selecting a stock - value based methods and the price based methods. Both the methods employ the concept of security and fundamental analysis in developing a robust process which can be adopted by investors and traders alike. The Value Investing Method of Stock Investment assumes wider significance in Indian context, as the Indian financial market is primarily a sentiment driven market. The fundamental analysis coupled to an appropriate sentiment analysis of a share can give the investor the right entry point into a particular counter. At the end of the day it doesn't matter 'What you Buy' but the 'Price at which you Buy' makes all the difference. The method considers both the abovementioned parameters equally important while deciding on the investment. The method would help the investors by minimizing the odds of suffering irreversible losses and maximizing the chances of achieving sustainable gains. The paper aims at assessing whether security analysis based on price-based methods still holds true in the present scenario when the market today is predominantly sentiment driven. This will be ascertained by researching a leading Public Sector Bank, Bank of Baroda, and analyzing the financials of the company based on the various fundamental and financial parameters. The paper will also aim at analyzing a company's future prospects and recommending "BUY or SELL" based on the findings.

Introduction

With the economic growth picking up pace and the investment cycle on the way to recovery, the banking sector has witnessed a transformation in its vital role of intermediating between the demand and

supply of funds. The revived credit off take (both from the food and non food segments) and structural reforms have paved the way for a change in the dynamics of the sector itself. Besides gearing up for

the compliance with Basel accord, the sector is also looking forward to consolidation and investments on the FDI front.

Public sector banks have been very proactive in their restructuring initiatives be it in technology implementation or pruning their loss assets. Windfall treasury gains made in the falling interest rate regime were used for writing off the doubtful and loss assets. Incremental provisioning made for asset slippages have safeguarded the banks from witnessing a sudden impact on their bottom-line.

Retail lending (especially mortgage financing) formed a significant portion of the portfolio for most banks and the entities customized their products to cater to the diverse demands. With better penetration in the semi urban and rural areas the banks garnered a higher proportion of low cost deposits thereby economizing on the cost of funds.

Apart from streamlining their processes through technology initiatives such as ATMs, telephone banking, online banking and web based products, banks also resorted to cross selling of financial products such as credit cards, mutual funds and insurance policies to augment their fee based income.

Banks form an integral part of any economy. The share prices of a particular bank go a long way in determining the share prices of the companies associated with it.

Key points

FY05 saw a shift in the revenue stream for the banking entities from non-banking to core banking activities. The rise in interest rates caused banks to book MTM (mark to

market) losses for their investment portfolios, and treasury operations no longer remained profitable. At the same time, pick up in incremental credit growth (29% YoY) led to banks increase their credit deposit ratio to 58%. While the retail loans (comprising approximately 30% of total industry advances) grew at an average of 40% YoY, the growth in corporate loan book also showed signs of revival. Infrastructure loans (comprising 17% of total industry loans) grew by 22% YoY. Deposit mobilisation, however, took place at a slower pace due to rise in cost of funds.

The rise in interest rates that exposed the banks' treasury portfolio to interest rate risks was partially hedged with the RBI's permission to make a shift of SLR securities (above the mandatory 25%) from AFS (available for sale) to the HTM (held to maturity) category. Most banks have taken this opportunity to de-risk their investment portfolios and have transferred a major portion of their investments to the HTM basket, thus taking a one-time hit.

Global Trust Bank's merger with Oriental Bank of Commerce (OBC) was a unique case of a defunct bank being merged with a fundamentally strong PSU Bank under the guidance of the RBI, which was executed in the interest of the depositors of the former.

Prospects

RBI's roadmap for the penetration of foreign banks and the acquisition of stake by the foreign entities in Indian private banks seems to be a step towards facilitating entry of foreign banks into India. The twin-phased roadmap also seems to be towards fulfilling the key objectives of competition, consolidation and convergence in the sector.

Policy initiatives such as lifting the 10% cap on voting rights in private banks was another much awaited decision for facilitating foreign ownership in private banks. This initiative is expected to pick up momentum once the sector opens up for foreign competition post FY09.

NPA and CAR (capital adequacy ratio) linked dividend policy proposed by the RBI has necessitated better risk management by the banking entities that is expected to augur well for the sector and penalize the non-complying entities. The same will also prepare the entities for the Basel II accord.

Given the low credit penetration and strong capex cycle, credit growth in the banking sector is expected to remain robust despite the prospect of rise in interest rates, going forward. While better asset quality projects a positive outlook for the sector, margin pressures and capital crunch remain some of the prime concerns.

There are two structured research methods of selecting a stock - value based methods and price based methods. The value based methods tells us whether to select a stock or not based on the value of the stock. Whereas price based methods tells us whether to select a stock or not based on the future prices that the stocks are expected to reach.

Target Pricing method of equity investment is adopted to ascertain the price that a particular share is expected to reach in the future. This price is calculated after taking into consideration the fundamental facets of the company and also after applying various statistical tools to the fundamental data.

Literature Review

Significant work has been done on predicting the stock returns. There is substantial evidence to prove that in the short-run, there is a positive autocorrelation in stock returns and there is negative autocorrelation in stock returns in the long-run.

Fama and French (1988) and Poterba and Summers (1988) assumed the share price as the sum of a cyclical component and trend component and they found evidences of mean reversion in this process.

DeBondt and Thaler (1985, 1987), Chopra, lakonishok and Ritter (1992), Richards (1997) observed that an investor could earn higher returns by selling those stocks which have gained huge returns in the past and buying or holding onto those stocks whose previous returns are lowest.

Jegadeesh and Titman (1993,2001), Chan, Jegadeesh and Lakonishok (1996), Rouwenhorst (1998), Chan, hameed and Tong (2000), Grundy and Martin (2001) also concluded that positive excess returns could be generated by holding portfolios with lowest past returns and selling portfolios with highest previous returns. These strategies are not contradicting each other as the trading strategy is for a longer time frame, normally 3-5 years, whereas the momentum trading strategy works in a shorter time frame (3 months – 1 year).

Hochberg, Jonathan J, Why and how to value a business: Asset-Based Financial Services Industry, observed that a Capitalization rate can be used to value a business with significant after tax earnings and slow growth expectations.

The excess earnings method, which capitalizes earnings in excess of finance costs and adds the market value of its assets, is also used to value businesses with high earnings. Shelly, Donald F, Jr, Setting a fair stock value, used the various formula-based, shareholder-determined, and outside appraisal methods for the valuation of shares.

Shelton, John P., The Value Line Contest: A test of the Predictability of Stock-Price Changes, evaluated a group of investors or an individual and observed whether they can outperform the stock market. He also observed that on the face of it, the question would seem to be fairly easy to answer, except in the case of private individuals.

Xu, Tan; Li, Diane; Jin, John Jongdae, Short Term Market Reaction to Earnings Restatements: Value Stocks vis-à-vis Glamour Stocks, proposed various hypotheses to explain why the return differential between glamour stocks and value stocks persists for so long. It is hypothesized that prices of value stocks drop more than those of glamour stocks at the announcement of earnings restatements, if other things being equal.

Liebich, Kim, How to value a bank, observed that there is subjectivity in the whole process of valuing a bank because of the lack of perfect information; insufficient data on comparable companies; and the imprecision in making adjustments in order to calculate fair market value. The income approach values a bank based on its historical and projected earnings and cash flows. The market approach is based on the premise that the value of a business should be determined according to what astute and rational capital market investors would pay to own stock in the subject bank.

Investment horizons and the cost of downside protection, Alles and Lakshman, aimed at examining the magnitude and behavior of the cost of earning a minimum rate of return in Australian stock market, using option pricing theory. The behavior of this cost was examined over a period of 20 years which in-turn was benchmarked to the risk-free rate. Downside protection was examined in terms of a protective participative strategy. The results showed that the insurance cost is sensitive to and depends a lot on the holding period of a particular investment and also the degree of security that an investor wants in that investment instrument.

Arbitrage risk and the book-to-market anomaly, Ali, Hwang and Trombley, observed that the book-to-market (*B/M*) effect is greater for stocks with higher idiosyncratic return volatility, higher transaction costs, and lower investor sophistication, consistent with the market-mispricing explanation for the anomaly. The *B/M* effect for high volatility stocks exceeds that for the low volatility stocks in 20 of the 22 sample years. Also, volatility exhibits significant incremental power beyond transaction costs and investor sophistication measures in explaining cross-sectional variation in the *B/M* effect. These findings are consistent with the Shleifer and Vishny (1997) thesis that risk associated

Target Price Method

Target Price is a method which clubs together the expected EPS and the expected P/E ratio of a particular stock to ascertain the future price which the stock is likely to attain. The project will be analyzing Bank of Baroda, which has a consistent financial record for the past years. The target price for Bank of Baroda will then be calculated

based on expected EPS and expected P/E. The prices found out will then be compared with various analysts' reports for their consistency.

Why Target Prices Are Better for Investors

Because ratings are generic comments that do not apply to every investor, investors can make better investment decisions instead on target prices. Ratings are good sound bites that convey quickly an analyst's point of view, but this is also their fatal flaw. What may be a 'buy' from the analyst's point of view may be a 'sell' to you. Your investment goals and risk tolerance are not the same as the person who wrote the research report.

How to Identify Good Target Prices

Target prices are like research reports: there are good ones and bad ones. The bad ones, which are used to deceive investors, are short on factual analysis and long on deceptive assumptions. The good ones provide information that helps investors evaluate the potential risk / reward profile of the stock.

In order to understand the difference between good and bad target prices, we need to define what target prices are and how they should be calculated. A target price is an estimate of a stock's future price based upon an earnings forecast and assumed valuation multiples. A good research report will present its case for a target price by presenting detailed information. A bad research report is not really a report but a deceptive marketing tool that lacks details but contains plenty of overstatements.

Investors need to evaluate the following four key aspect for determining the legitimacy of a target price: the EPS forecast, the assumptions underlying the EPS forecast, the valuation multiples used and the rationale for using those valuation multiples. Here is how investors can judge these factors.

EPS Forecast

This is the foundation of the target price, and the report should contain a detailed earnings forecast model (full income statement with a discussion of operating cash flows) for the time frame covered by the target price (preferably two years). A quarterly forecast for the next 12 months is useful for tracking the accuracy of the analyst and for keeping an eye on whether or not the company is performing as anticipated.

EPS Forecast Assumptions

The report should also discuss the assumptions used to make the forecast so that the reader can evaluate their reasonableness. A report which lacks a detailed earnings model and a list of assumptions should act as a warning sign to investors.

It is important that the assumptions be reasonable. For example, in the current economic environment it is highly unlikely that a micro-cap company whose sales have grown at a 1-2% pace during the last two years will be able to accelerate sales growth to a double digit pace in the coming two years. A good research report will provide the reasons why the analyst expects a big jump in sales growth (for instance, the company may have acquired a new product or patent) and a detailed earnings model so that the reader can adjust the assumptions

(e.g. reduce sales growth expectations) to calculate the impact on EPS and valuations.

Valuation Multiples Used to Calculate the Target Price

The next building blocks of target prices are valuation multiples, such as price/earning (P/E), price/book (P/B) and price/sales (P/S). You need to make sure that the type of valuation multiples used are applicable to the stock you are researching. market places more emphasis on P/E multiples for industrial companies and a P/B.

In addition to using the right multiples, the valuation model should be based on more than just one variable. A valuation model based on one multiple is like a one-legged stool: not very sturdy or reliable. While the market may place more emphasis on one multiple over another, a good model consists of at least three variables. Three good multiples for industrial companies are P/E, P/B and P/S. Bank prices, on the other hand, are typically based on P/B and to a lesser extent on P/E and price/total income (where total income is defined as net interest

Assumptions Used to Justify the Valuation Multiples Used

Assumptions, whether they are used to support an earnings forecast or valuation target, need to be reasonable. This can be determined by looking at the assumptions and comparing them to historical trends, a relevant peer group (i.e. companies, possibly competitors that are in the same business) and current economic expectations.

In order to make a good case for a target price, the analyst should include a

discussion of the historic trends and an analysis of these trends through a comparison to a relevant peer group. If a stock has consistently traded below its peer-group average (has been at a discount) and the forecast expects the multiples to be larger than the peers (to be at a premium), you need to evaluate the reasons why the market is expected suddenly to discover the stock. While there are occasions when valuations pop (such as when a company gets an FDA approval to market a drug), they are high risk/reward situations and only investors with that type of risk tolerance should accept those assumptions and invest in this type of situation.

The Bottom Line

Investors will make better decisions if they focus on target prices, which convey more information for evaluating the potential risk/reward profile of a stock. A good target price is based upon a reasonable set of four factors that provide the reader with information to determine the accuracy of the target price. The absence of any of these four factors should be a red flag that the so-called report could really be a pump and dump marketing ploy.

Need for the Study

Fundamental analysis forms the very basis of investing. There are The study is aimed at ascertaining the prices of the shares in advance so as to help the investors in taking informed decisions based on the fundamental analysis. There are numerous different investment strategies, yet all of them use the fundamentals of the company while taking and investment decisions. Fundamental analysis involves analyzing the financial statements of a company and it also involves understanding the story behind the numbers. The investors basically

Table.1 Ace Equity Database and the period of the analysis is from Mar' 2000 – Mar' 2013

Years	Total Income
200003	5860.80
200103	6463.62
200203	6948.71
200303	7359.27
200403	7866.08
200503	7744.76
200603	8177.34
200703	10385.88
200803	13864.51
200903	17849.24
201003	19504.70
201103	24695.10
201203	33096.05
201303	38827.28

(Source: Ace Equity Database)

Table.2 5 year Compounded Annual Growth Rate (CAGR) has been calculated from Mar'00 – Mar'13.

Error in sales(FY 14) (5 year CAGR)	9.5%
Forecasted sales (FY 14) (Rs. in Crores)	47,679.9
Operating Expenditure (FY 14) (Rs. in Crores)	40,372.99
PBT (FY 14) (Rs. in Crores)	7,306.91
Tax Charges (FY 14) (Rs. in Crores)	949.11
Profit After Tax (PAT) (FY 14) (Rs. in Crores)	6,357.8
Total Profit & Loss (FY 14) (Rs. in Crores)	6,357.8
Outstanding Shares (FY 14)	421256303
Avg. P/E of last 5 years	6.65
EPS (Rs.) (FY 14)	150.92
Target Price (Mar'2014) (Rs.)	1,003.05
Price (as on 15-10-2013) (Rs.)	562.15

wants to know how much is the company earning and how much can the company earn for the investor in times to come.

More than 99% of the money are invested into speculative instruments around the world. Many traders use technical analysis for speculative trading. Huge risk is involved when somebody does speculation, and in turn they may get higher returns also. The speculators may also end up being in losses owing to the high risk involved in such transactions.

The study will assess whether investment done through fundamental analysis route can earn a good return together with taking a moderate amount of risk.

Data and Methodology

Sampling & Data Collection

The paper will try to assess the investment scenario of Bank of Baroda. The research has been conducted using the financial data which has been extracted from secondary sources of information (Ace Equity Database) and the period of the analysis is from Mar' 2000 – Mar' 2013.

Results and Analysis

Bank of Baroda

Overview

15/10/2013 : 562.15

Industry : Banking

52 Week High/Low : 899.65/429.25

Asset Class : Large Cap

Analysis

The 5 year Compounded Annual Growth Rate (CAGR) has been calculated from Mar'00 – Mar'13.

The growth rate has been calculated for this year based on which the sales for the next year has been forecasted. The Mean Average Percentage Error is also calculated and it comes out to be 0.095. This means that the projections are within acceptable limits and the actual sales figure next year will probably lie somewhere close to the forecasted figure. The forecasted sales for the year 2013-14 is expected to be Rs. 47,679.9 crores. This sales figure is used as a basis to predict the Profit & Loss Account of next year.

Implementation issues/considerations

The markets around the world, may at times, react sentimentally to situations which may lead to an upward or downward movement in share prices. Such volatility is usually short-lived and has got nothing to do with the fundamental aspects of the company. The markets may react to news also, but this happens because of the kind of inefficiencies that are prevalent in the market.

Conclusion

The fundamental analysis of a company secures an individual against any downside in the long-run. In the shorter run, the investor may suffer losses if he sells his investment. The fundamental analysis of the company shows that the current share price of Bank of Baroda is Rs. 562.15 and the expected price as on March' 2014 should be Rs. 1,003.05. The investors could actually invest in this company because the target prices are more than the current market prices of the shares of this company. The markets may play inefficiently during this period, because of which the target prices can be different from the actual prices. The markets around

Annexure: 1 Statistical Output

Statistical Summary Output	200003-200503	200103-200603	200203-200703
Multiple R	0.986485589	0.986336031	0.949567189
R Square	0.973153818	0.972858767	0.901677847
Adjusted R Square	0.773153818	0.772858767	0.701677847
Standard Error	0.036980306	0.028405722	0.065542818
Observations	6	6	6
Intercept Coefficient	0	0	0
X variable Coefficient	0.067131081	0.051276645	0.059845125
X variable t stat	13.46277177	13.38736525	6.771502024
X variable P-value	4.04851E-05	4.16111E-05	0.001067582
5 Year CAGR	6.94	5.26	6.16

Statistical Summary Output	200303-200803	200403-200903	200503-201003
Multiple R	0.924654293	0.945638469	0.991838384
R Square	0.854985562	0.894232115	0.98374338
Adjusted R Square	0.654985562	0.694232115	0.78374338
Standard Error	0.124912338	0.150560937	0.080202156
Observations	6	6	6
Intercept Coefficient	0	0	0
X variable Coefficient	0.091449801	0.131997039	0.18811156
X variable t stat	5.429486673	6.501794268	17.39445331
X variable P-value	0.002873037	0.00128504	1.15078E-05
5 Year CAGR	9.57	14.11	20.69

Statistical Summary Output	200603-201103	200703-201203	200803-201303
Multiple R	0.997004446	0.997141558	0.997652585
R Square	0.994017865	0.994291287	0.99531068
Adjusted R Square	0.794017865	0.794291287	0.79531068
Standard Error	0.059131129	0.057216304	0.046757165
Observations	6	6	6
Intercept Coefficient	0	0	0
X variable Coefficient	0.229820525	0.22767281	0.205388537
X variable t stat	28.82398251	29.51023782	32.57687179
X variable P-value	9.4178E-07	8.37745E-07	5.12133E-07
5 Year CAGR	25.83	25.56	22.8

the world are inefficient and this may lead to a deviation in the actual and target share prices of Bank of Baroda during the period in question. There are huge changes in the external environment which may lead to abnormal movements in the price of the shares of Bank of Baroda. But in effect the investors know that the fundamentals of the company are good and the chances of running into losses are also less in the long-run.

References

- Ace Equity Software
- Poterba and Summers. "Mean Reversion in stock prices: Evidence and Implications", *J. Finan.Economic*.
- DeBondt and Thaler. "Does the stock market overreact", *J. Finance*.
- Jegadeesh and Titman. "Momentum", University Of Illinois Working Paper
- Shelton, and John P. "The Value Line Contest: A test of the Predictability of Stock-Price Changes", *J. Business*. Chicago Press
- Xu, Tan . "Short Term Market Reaction to Earnings Restatements: Value Stocks vis-à-vis Glamour Stocks", *Acad.Account. Finan. Studies J*.
- Liebich, and Kim. "How to value a Bank", Academic journal article from *ABA Banking Journal*, Vol. 87, No. 8
- Alles and Lakshman. "Investment horizons and the cost of downside protection", *JASSA Spring (3): pp. 26-31*
- Ashiq Ali., L. Hwang and M. Trombley.2003. "Arbitrage Risk and the Book-to-Market Anomaly", *J.Finan. Econo. 355 - 373*.