International Journal of Management, Public Policy and Research
International, Peer Reviewed journal
E-ISSN: 2583-3014

LONG TERM INVESTMENT: CRITICALLY EVALUATING THE SPECULATIVE NATURE OF INVESTING IN HIGH PE RATIO STOCKS

Deepak K. Amin, Dr. Hemal Pandya

Research Scholar,
S D School of Commerce, Gujarat University, Ahmedabad – 38009, Gujarat, Bharat.

Professor,
S D School of Commerce, Gujarat University, Ahmedabad – 38009, Gujarat, Bharat.

ABSTRACT

Price to Earnings ratio is one of the most significant and top used financial metric when it comes to fundamental analysis and investment decision making. Even the market moves based on the expected PE ratio and adjusts itself from time to time accordingly. This study aims at critical evaluation by comparing a stock purchase at a historic date at a higher PE multiple with a current date and calculating returns on both stock price levels as well as dividend yield level over the entire period in absolute terms. It wants to highlight that a purchase at higher PE falls out of the definition of investing and should be categorized and treated as speculative for very clear reasons that are critically evaluated in this study. It is noticed that unless the company grows top line and bottom-line exponentially, a stock purchase at higher PE delivers very dismal dividend yield if any and mostly negative return on account of stock price depreciation rather than appreciation. Hence, such purchase can be said to be speculative as it relies solely on momentum stock price rise for gains.

Keywords: PE Ratio, Indian Stock Markets, Speculation in Stocks, Stock Market Fluctuation

JEL Classification: G10, G11, G12.

1. INTRODUCTION

PE ratios is one of most extensively used financial tool for making investment decisions. Normally it is considered that if the PE ratio is higher then the stock price is overvalued and if it is lower then the stock price is undervalued or reasonably valued. A low price-earnings ratio is used as an indicator of the desirability of particular stocks for investment by many value/contrarian fund managers (Keith & Chris, 2005). Many times a higher PE multiple is believed as a sign of high confidence in the company's future growth potential or an indication of premium commanded by the company for reasons other than that (Sushil & D P, 2009). Likewise, a lower PE multiple can mean a vote of no or low confidence in the future of the company or/and an indication of a discount in valuation assigned to it for reasons other than that. In addition, prices of securities are biased and the PE ratio is an indication of this bias (S Basu, 1977). However, stock market works in myriad manners. There are no or fewer thumb rules and different financial ratios are looked upon differently by investors while considering investment in different sectors. Also, within the sector, some may give importance to some ratio and others might not. In a study by Lambros (2005), the ratio is found to be negatively related to subsequent equity performance in the Athens Stock Exchange.

2. ANATOMY OF PE RATIO

PE ratios is the current price of the stock divided by the earning per share. It gives you a figure which show how many times you are ready to pay for a share of a company for a given earning it is generating. When you inverse the formula essentially it is interest that one gets that when an investor is purchasing stock of a company. Suppose the PE ratio is 10 which means that the investor is giving 10 rupees to earn each 1 rupee from the company or against expectation of each 1 rupee of earning from a company. So a PE of 10 means 10% return at current EPS (not that all money is dispensed to the investor in the form of dividend), and a PE of 20 shall be a return of 5% and so on. Thus, higher the PE lower the on paper return on earnings. You can imagine here how the rate of interest, rate of inflation and growth prospect of the economy and the firm must be connected and play role in prevalence of any PE ratio scenario.

2.1. The Problem with high PE and the Sales and Earnings Angle

The investor expects dividend income which should be a decent dividend yield depending upon the prevalent interest rate and inflation scenario. Second expectation is capital appreciation - this is a bit tricky. Let's come back to purchasing price. When an investor is purchasing at low PE, say at a PE which is commensurate with the prevailing rate of interest, inflation and economic growth prospect and thus he is getting about FD or desirably higher than FD rate of return - so now he is getting good dividend yield at the same time the stock price can increase and he gets capital appreciation benefit. Again in any rational investment there is a reasonable and realistic expectation of business growth and consequently the rise in value of the firm and logically and hopefully but not certainly preceded or followed by the appreciation in the share price as well.

So as time passes the investor's dividend yield will continue to rise as well as the initial investment corpus. Now if the investor has purchased at a high or mostly very high PE, for the sake of the example-at double the desirable PE; then for that investor to reap benefit of good annual return and genuine reasonable and realistic capital appreciation; the company has to double the topline and/as well as net profit (it is safe to assume that without increasing sales to double, near double or higher than double, it is impossible to double the net profit). Stavros Panageas (2003) writes in one of MIT working paper that one can think of situations where this short-term reasoning is no longer optimal. Indeed, investors with holding horizons that are sufficiently long might choose to disregard speculation altogether.

So now to come to the point that this study is trying to prove, is that unless the stock price rises the investor gets nothing (of course he will continue to get the lower dividend yield), because it is safe to assume that the company is not going to supercharge its way to 100% growth in 1-2 years. (well, to invest by expecting so is in itself a speculative thought process (please refer to assumptions and limitations)). And the only way his investment corpus is rising is by way of the stock price appreciation, which can again be possible by speculative price rise only as the investor has already purchased at double than reasonable PE.

3. RESEARCH METHODOLOGY

3.1. Objectives of the Study

- This study aims to analyze a situation when stocks are bought at higher PE ratio, then what kind of return on investment play out at the end of a reasonably longer duration.
- This study aims to uncover the element of speculation hidden when stocks are bought for long term investment but at steep PE ratios.
- This study aims to understand that when sales and net profit growth is not exceptional, whether the market ceases to give high PE to the stock or not.

3.2. Sample design

The study covers 8 listed companies from different sectors with different past financial and business track record scenario and classifications like bluechip, dividend paying and such. Non probabilistic purposive sampling type is used.

3.3. Data Collection

Secondary source of data will be utilized for this proposed research study. Secondary data have been collected from website screener.in and stock prices from in.investing.com website.

3.4. Period of Study

The data points for different companies have been taken for different years. The very reason is that the researchers want to highlight the start date as the time when the stock was available in high PE territory. Also, minimum timeframe of 5 years leaves enough room for the business to grow. Thus, for the selected companies anywhere between 5-10 years of data is taken for different companies.

Below are the study durations taken for different stocks along with the start date and end date for the purpose of the analysis of the respective data points.

Company Name	Start Date	End Date	Duration in yrs.	Scenarios
Dmart	March 2018	March 2023	5	High PE, High Growth
Castrol	December 2014	December 2022	8	High PE, Low Growth
TBZ	March 2015	March 2023	8	High PE, Low Growth
Capacite Infra	March 2018	March 2023	5	High PE, Moderate Growth
Vodafone	March 2013	March 2023	10	High PE, Negative Growth
TCS	March 2012	March 2023	11	Moderate PE, High Growth
Amara Raja	March 2015	March 2023	8	Low PE, Moderate Growth
RIL	March 2012	March 2023	11	Low PE, High Growth

*Growth is defined as growth in sales and net profit in absolute terms over the start and end date as well as CAGR for 5 or 10 years in both.
*PE ratios of 15 and lower is considered low while between 15 and 25 is considered moderate and PE above 25 is considered high by the researchers.

3.5. Research Techniques

Study of past stock prices and financial analysis of sales and profitability is undertaken so as to compare it with the stock purchase price and sale price with regard with their price to earnings ratio. Here, the time-over-time increase in sales and profitability is presented along with the compounded growth in both of them to refer to for critically evaluating the purchase of the stock at higher PE. Below are tools, techniques, financial metrics and formulas used.

- Sales growth in times = sales at end time/sales at beginning time
- Compounded sales growth and compounded profit growth are taken to show the top line and bottom line growth scenario over 5 years or 10 years.
- PE ratio = Stock Price/EPS
- Return on original investment at stock price level = share sale price- share purchase price/share purchase price
- Dividend yield or Average annual return on original investment on dividend level = total dividend paid per share during the given duration divided by the given duration

3.6. Possible Exceptions

In the below conditions the speculative nature of high PE can be ignored due to the special situation scenario. More times than often the investment return out of such special situations is locked in or pre-determined, calculated or even many times fixed; so it can be safely assume that these types don't fall into classic speculative types.

1. Purchasing a stock for benefits accruing due to some corporate action like merger and acquisition and so on.
2. The company is in such a business or market or forefront of some technology due to which reasons the topline and/or bottom-line are getting doubled every year or two. But again in this case the PE of the company will not rule at merely what we call a 'higher' level (25 to 50), but mostly in what we will call 'stratospheric' level (50 to 100 and above).
3. The investor is well aware of the fact that he is purchasing at high PE but think that the stock price will not decline and intends to hold this stock for 5-10 years over which period he has reasons and research to believe that the topline and/along with the bottom-line will also multiply 5-10 times. He also is ready/happily willing to average out in case the price of the stock declines.
4. Many times a stock is purchased at a higher PE and in some time it rises further due to bull market environment or some other reason. If the investor grabs this opportunity and runs away with his chanceful profits, then he has immuned himself from the perils of high PE purchase.
5. Sometimes the company may give windfall dividend due to sale of some business unit or such reason. In such cases also the return on investment may shoot up for the investor. However, the flip side is that the valuation of the firm may also reduce as its asset block will reduce due to such corporate action.

3.7. Assumptions

- The market is perfect over the longer period of time and stock prices will reflect the ideal intrinsic value of the firm over a period of time.
- Investors hold stocks for sufficient longer duration rather than book profits on attaining higher prices.
- Defining speculation can become very subjective. Jean Tirole (1982) in his study on possibility of speculation under rational expectations writes that unless traders have different priors or are able to obtain insurance in the market, speculation relies on inconsistent plans, and thus is ruled out by rational expectations.

A famous investor website Investopedia.com explains speculation as an investment that can also show a high probability of failure. Also this success or failure depends primarily on chance, or on uncontrollable (external) forces or events (see exceptions for this).

The definition of speculation assumed for the study is as:

1. Investment into a stock is made for long term and any investment less than long term is speculation. However, here it is very difficult to define long term. Also, if sometime an investor is buying a stock at lower PE finding it cheap and in a matter of months only the stock price rises dragging it into a higher PE zone then the investor exits. Here the duration of investment is less than a year but still it will be considered to be legitimate investment (and not speculation or trading) as the decision to buy as well as exit sell was based on valuations. Formally a long term investment can be defined as an investment where the company is given sufficient time to produce financial performance giving it reasonable time depending upon the nature of its business. The periods of study above 5 years taken for each case represents this fact.
2. And long term investment is made for mainly the dividend yield return or the enterprise value increase in case of zero dividend payout giving it reasonable years of time to play to grow top line and bottom line (which might pay hefty dividend in future and/or increase in the shareholder value by rise in share price if listed or otherwise if not listed). Hence, any stock investment made sans the above considerations can be safely assumed to be made merely for gains from stock price rise; hence deemed to be speculation.

- Sales and profitability of a sector or for majority of firms in a sector does no gyrate dramatically rather than increase steadily with very few exceptions or cyclicity where due to the nature of the business for certain quarters business shoots up and then settles back to where it was.
- It is assumed that the stock price is adjusted for bonus, split, dividends paid, capital reduction, buybacks and such events which normally it does.

3.8. Limitations of the study:

- The study has tried to select businesses with different nature and financial performance but still many distinct nature businesses could have been left out.
- Sample size or cases taken are only 8 in number which can be a very small sample size. However, the nature of this study does not command statistical analysis of certain minimum population size of significance; rather than fundamental and investment analysis conducted upon selected securities would suffice for the authors to prove their premises.
- Another limitation of this premise is that there is no one ideal PE ratio and so the question arises which is an ideal PE ratio?

1. Many times some sector or company continuously trades at a high PE ratio for a very sustained period of time leaving investors with no choice but to buy at high PE. Such companies are normally companies whose fundamentals are exceptionally good with high topline and bottom line CAGR q-o-q and y-o-y, consequently the price keeping in pace with the same. You can take example of Avenue Supermarts Ltd. You can also add stocks such as CRISIL whose very business model, and factors such as high predictability and steadiness of earnings, and low capital base among others render the stocks PE to float higher for many years without declining. We are here not considering penny stocks and such other stock for obvious reasons which also many times remain on high PE levels for many years.
2. In the times of sustained lower interest rates also, we may find stocks commanding high PE ratio to commensurate with the consequent lower dividend yield for the very reason of lower interest rates trend.

- Current PE or Forward PE?:

Prof. Aswath Damodaran, of Stern School of Business at New York University, did a study in which he found the average current PE (based on actual recently reported or past reported average earnings) of more than 3000 listed companies in the USA at as high as 83.86, while the average trailing PE (based on past twelve months earnings) for those was 43.88 and forward PE was starkly lower at 24.45. By presenting this, we want to point to another possible limitation of our study, which is that a hardcore fundamental investor mostly relies upon the already reported financial performance rather than any forecast based earnings in the future. However, the stock market is usually a mechanism of discounting in the future which can be identified in the observations of Prof. Damodaran where the current PEs are way high but the forward PEs are kind of moderate. In conclusion the market is valuing the firm almost irrationally and speculatively for its current/past earning but reasonably (assuming a PE of about 25 to be reasonable at that time) based on the future earnings forecast as the investor invests to benefit from the upcoming growth and not from past glories.

4. EMPIRICAL ANALYSIS OF FEW STOCKS

In data analysis, a past date is taken and the sales and profitability growth is calculated for a current comparison date. Along with that the stock price of that past date and current date along with their respective PE ratio is also jotted down where the stock price of past date or stock purchase date is at a higher PE ratio (except for a couple). Now, return on this investment is calculated on both stock price appreciation level as well as dividend payout level. We can see how the return on stock price basis is negative and on dividend yield basis is dismal when a stock is bought at higher PE.

In some cases, the stock price has risen even if the sales and profitability growth remained dismal over the given period. In such case, one will say that the investor has succeeded in his goal. But that is where our contention lies that this is speculative return. The stock was already bought at higher PE, sales and profitability did not pace up and still stock price risen and sustained higher levels (this happens for many reasons which are discussed in brief elsewhere in this paper) which brings the investor into positive return territory. This is speculative return and not backed by the actual growth of the business.

Table No. 1. Analysis of few Stocks on Empirical basis

Company Name	No. of years taken	Stock PE at Start Date	Stock PE at End Date	Growth In Sales	Growth in Stock Price	Growth In Profit	Comp. Sales Growth	Comp. Profit Growth	Return On Original Investment	Dividend Yield
D Mart	5	102.55	92.67	2.85	2.57	2.95	23%	25%	1.57	0
Castrol	8	52.08	15.17	1.41	0.5	1.72	4%	6%	-0.5	2.16
TBZ	8	43.83	10.47	1.24	0.39	1.67	4%	negative	-0.61	0.61
Vodafone	10	75.27	negative	1.88	0.09	negative	7%	negative	-0.91	0.08
Amara R.	8	12.5	14.02	2.47	1.9	1.69	13%	10%	0.9	2.06
Capacite	5	31.99	10	1.34	0.53	1.19	6%	5%	-0.47	0.27
TCS	11	21.05	28.21	4.61	5.80	4.02	14%	12%	4.80	6.67
RIL	11	13.45	21.30	2.45	5.53	2.92	18%	13%	4.53	1.44

*Growth in sales is over the given period (in times), Growth in stock price is over the given period (in times), Growth in profit over the given period (In times), Compounded sales growth (over past 5 or 10 Yrs.) (in %), Compounded profit growth (over past 5 or 10 Yrs.) (in %), Return on original investment at stock price level (in times), Dividend Yield is the average annual return on dividends paid out on stock purchase price,

Notes on Data Analysis:

- Start Date and End Date is taken as a month of the year rather than a particular date as a specific precise price or data point at a specific precise date is not significant criteria for his study rather than the changes in the data points over a broader duration and the purchase and sale price of the stock.

- Start date = stock purchase date. Other figures like sales etc. also taken on/around this date.
- End date = current date or stock sale or calculation date. Other figures like sales etc. also taken on/around this date.
- There can be negligible discrepancy in sales and profitability related figures due to the difference in reporting period and figures may not demonstrate exactness on date to date basis.
- In some cases, the sales and profitability CAGR can be for a higher or lower time duration (but at the end of FY 2023) than the start and end date for the stock prices. This is mostly due to ready availability of such data for such duration from the data resource pool and also the purpose of study is not any type of comparative analysis but to prove an investment premise. In some cases, it is to show a longer duration to give more time for sales and profitability to grow and demonstrate a reasonably longer time performance of the company.

Commentary on table

Castrol Ltd stock was clearly bought at a time in a bull market. This is clearly a dividend stock as it has given average 79% dividend payout over a long period. It can be safely assumed that the company itself knows that they are in a pretty steady business with a slow growth nature where internal rate of return is lower – the very reason for such a high payout ratio and lesser profit plough back. And hence, purchasing at high PE gives surety of lower dividend yield with dismal chances of capital appreciation in terms of stock price growth which can be seen in the data.

Avenue Supermarts Ltd is one of very few of such companies which can post top line and bottom line CAGR of 30 plus percentage. Its CARG for both metrics was above 30% for 10 consecutive years and well above 20% for the given 5 year duration. Along with that and with zero dividend policy the stock price remained around a steep PE of 100. For the very reason steep PEs are sustained year over year for this stock. **TCS, RIL and Amara Raja** were bought at reasonable PEs and hence gave astounding returns on stock price level over a good 10 year period. The icing on the cake was a nice annual dividend yield for the TCS purchase. For **Amara Raja**, here is growth in sales and profitability but stock adjusted for PE ratio, and hence this scenario tells even a more disappointing and unfortunate story that even after good growth in sales and profit the investor is not gaining return due to purchasing at higher PE. Apparently the market stopped giving whatever the premium it was giving and stock went out of favor for whatever reasons. To add more disappointment, the average dividend payout was 19%, so despite the growth in profitability because it was not distributed among investors, the dividend yield return also remained dismal for the investor because of this second reason of lower payout ratio. So in this stock the investor didn't gain capital appreciation because of buying at high PE and stock losing investor demand despite good growth; and also missed out on dividend yield as the average payout ratio is as low as 20. All the investor could now do is to hold for more years.

TBZ Ltd, bought at a steep PE, the company could not follow up with sales and profitability growth. The result was about 40% decline in stock price with dismal dividend yield. The story is not different for **Capacite Infraprojects Ltd** as the stock was bought at higher PE for its sector and the company failed to sustain the premium while not maintaining sales and profit growth eventually giving losses to the investor on both fronts.

Vodafone Idea Ltd: Investors buy high PE ratio stocks for a variety of reasons. This is classic example of the same. This stock was bought at exorbitant PE of 70 even though the company had too much debt and very dismal OPM and NPM. On top of that, the sector went downhill over the next decade and the company did disastrously in terms of profitability and sales. Hence on account of year on year losses along with huge debt, the stock price eroded 90%. Purchasing at lower PE could have at least escaped more than half of capital erosion.

5. SCOPE OF FUTURE STUDIES

A future researcher can take a larger sample size taking only the given variables and apply relevant and popular statistical tools in order to draw more quantitative insights to back the premise which this paper wants to further. It can form a foundation for lay investors to pick stocks without having to do complex research and analysis yet benefit from stock investing.

6. CONCUSION

We can see that when stocks are purchased at higher PEs, the investors lose out both on capital appreciation and dividend yield. The reasons showcased in the study are lack of exponential growth in sales and net profits over the subsequent years. The return on that investment will likely be negative on stock price appreciation basis and very dismal if not negative on dividend yield basis. These investments are set to fail from the very beginning. This make the investment to be of speculative nature rather than backed by the basic tenets of business and fundamental analysis. This becomes a speculation as the investors' only hope to make money becomes the continued rise in prices and even further PE expansion.

REFERENCES

[1] Anderson, K., & Brooks, C. (2006). Decomposing the price-earnings ratio. Journal of Asset Management, 6, 456-469.
[2] Park, S. (2000). What does the PE ratio Mean?. The Journal of Investing, 9(3), 27-34.
[3] Kumar, S., & Warne, D. P. (2009). Parametric determinants of price-earnings ratio in Indian capital markets. IUP Journal of Applied Finance, 15(9), 63.
[4] 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, 32(3), 663-682.
[5] Stefanis, L. (2005). Testing the relation between price-to-earnings ratio and stock returns in the Athens Stock Exchange. Available at SSRN 872272.
[6] Gottwald, R. (2012). The use of the P/E ratio to stock valuation. European Grants Projects Journals, 2012, 21-24.
[7] Prabhakar, B. A., & Japee, G. P. (2023). Assessment of Listed Cement Companies in India with Reference to Specific Valuation Parameters. Assessment, 7(2).
[8] Tirole, J. (1982). On the possibility of speculation under rational expectations. Econometrica: Journal of the Econometric Society, 1163-1181.
[9] Panageas, S. (2003). Speculation, overpricing, and investment: Theory and empirical evidence. MIT working paper.
[10] https://www.screener.in/
[11] https://in.investing.com/indices/us-30-chart
[12] https://www.investopedia.com/ask/answers/09/difference-between-investing-speculating.asp
[13] https://pages.stern.nyu.edu/~adamodar/pdfiles/eqnotes/earnmult.pdf