Article can be accessed online at http://www.publishingindia.com

Is PEG Ratio a Better Tool for Valuing the Companies as Compared to P/E Ratio? (A Case Study on Selected Automobile Companies)

Bharat Kumar Meher*, Saurabh Sharma**

Abstract

The securities in the capital markets can be analysed with the help of Fundamental Analysis or Technical Analysis or both. As for many small investors, technical analysis is a complex tool to be used for analysing the securities; they basically use fundamental analysis in formulating their effective investment strategies. Fundamental Analysis includes various tools and techniques for making analysis of various securities in which Ratio Analysis is one of them. Investors emphasize on one important ratio i.e. P/E Ratio to have a better understanding on the future growth of a company. P/E i.e. Price Earnings Ratio is calculated by dividing market(stock) price per share by its earning per share. This research paper represents a brief note about P/E and its application in making certain investment decisions. This paper also attempts to focus on a new ratio i.e. PEG innovated by some financial analysts to analyse the growth position of various automobile companies and again a critical analysis of financial statements of selected automobile companies is done to assess its P/E and PEG Ratio. To conclude this paper a comparison is made between the P/E and PEG Ratio to determine whether the newly innovated PEG Ratio is more effective over P/E Ratio.

Keyword: EPS, P/E Ratio, PEG Ratio, Valuation

Introduction

Stocks are the financial assets from which an investor can get returns in the form of dividend and in the form of price appreciation. However, the selection of a security for an appropriate investment is quite a difficult task on the part of the investors. Every investor has to make certain analysis before investing his funds on a security. Analysing the P/E ratio is one of the most common techniques used by the investors in the selection of security or securities on which investment can be made.

P/E ratio is a good measure of the level of stock market valuation. Effective investment decisions can be taken if the ratio is calculated properly.Companies are rarely equal. Comparisons between those companies which are differentin terms of their products, services, time periods etc. may be misleading. In such a case P/E ratio enables to bring all companies to a common platform which can ease in comparisons. Recently some analysts suggest that P/E ratio is not an appropriate measure for valuing the companies of automobile sectors. So they shift to a newly innovated ratio i.e. PEG method.

In order to assess the effectiveness of PEG method over P/E, it is necessary for the readers to know about the P/E and PEG method, its calculation and its application.

P/E Ratio

P/E ratio means price to earnings ratio. It is an equity valuation multiple. It is calculated by dividing the market price per share by earnings per share (annually).

P/E

where

P/E = Price-Earnings Ratio

* Research Scholar,School of Business & Commerce, Manipal University, Jaipur, Rajasthan, India
** Assistant Professor in Commerce,School of Business & Commerce, Manipal University, Jaipur, Rajasthan, India.
E-mail: drsaurabh.sharma@jaipur.manipal.edu

M.P/Share = Market Price per Share

EPS = Earnings per Share

Application of P/E Ratio

It facilitates comparison between different companies. If the P/E ratio of a company is higher than that of another company then it means that the company with higher P/E has more possibility of higher earnings growth in future as compared to another.

It is also helpful to compare the value of stocks and to take appropriate investment decisions. The investors are interested to invest in those stocks which have low P/E ratio aslow P/E ratio represents that the stock is available in cheap cost i.e. more return on investments. On the other hand the stocks with higher P/E are regarded as less attractive investment. P/E ratio in general is useful for comparing valuation of peer companies in similar sector or group.

Criticism

P/E ratio is criticised on the ground that it totally depends upon two figures i.e. Current Market Price and the Earnings per Share. But what if the Current Market Price is manipulated one. Again, are the earnings of the company fairly calculated? Such things destroy the P/E's validity.

Analysis of Securities of Selected Automobile Companies with the Help of P/E Ratio

Table 1 represents the Market Price per Share, Earnings per Share, and P/E Ratio of selected automobile companies during last five years i.e. from the 31st March, 2010 to 31st March, 2014. In the year 2010 the MPS of Bajaj Auto was Rs. 1005.55. It increased to Rs. 1459.8 in the year 2011. And again it roseup to Rs. 2078.3 in the year 2014. Similar uptrends can be seen in MPS of other companies too. The MPS of Hero Moto rosefrom Rs. 1942.55 in 2010 to Rs. 2272.85, the MPS of M & M rosefrom Rs. 545.2 in 2010 to Rs. 980.65 in 2014, the MPS of Marutirosefrom Rs. 1416.15 in 2010 to Rs. 1971.4 in 2014, the MPS of TVS rosefrom Rs. 41.08 in 2010 to Rs. 97.4 in 2014, and lastly the MPS of Tata Motors rosefrom Rs. 151.14 in 2010 to Rs. 398.35 in 2014. The MPS of Bajaj Auto, TVS and Tata Motors become more than double in last 5 years while the MPS of Hero Moto, M & M and Maruti increased by 17%, 79.86% and 39.20% respectively. P/E ratio is used basically to know which share is cheaply available among the shares of the same sector. Share with low P/E ratio represents cheapness. In the year 2010 and 2011, it can be said that the shares of Tata Motors werecheaper than other companies' shares as the P/E ratio of Tata Motors was just 3.88 in 2010 and 8.63 in 2011. The shares with low P/E ratio attract more investments.As a result the demand for Tata Motors increased which ledto rise in its price. Similarly, in 2012 and2013, investments in the shares of TVS could be a wise decision. In the year 2014, shares of Maruticouldbe the most attractive investment and the

Table 1: MPS, EPS and P/E Ratio of Selected Automobile Companies

Years	*NAME OF THE AUTOMOBILE COMPANIES*																	
	Bajaj Auto			*Hero Moto*			*M & M*			*Maruti*			*TVS*			*Tata Motors*		
	MPS	*EPS*	*P/E*	*MPS*	*EPS*	*P/E*	*MPS*	*EPS*	*P/E*	*MPS*	*EPS*	*P/E*	*MPS*	*EPS*	*P/E*	*MPS*	*EPS*	*P/E*
2010	1005.55	117.7	8.54	1942.55	111.77	17.38	545.2	35.61	15.31	1416.15	86.45	16.38	41.08	3.71	11.07	151.14	38.99	3.88
2011	1459.8	115.4	12.65	1586.55	96.54	16.43	698.6	44.33	15.76	1263.55	79.22	15.95	60	4.1	14.63	249.5	28.92	8.63
2012	1677.9	103.8	16.16	2056.1	119.09	17.27	708.5	46.89	15.11	1224.3	56.6	21.63	43.15	5.24	8.23	275.7	3.77	73.13
2013	1783.8	105.2	16.96	1541.9	106.07	14.54	861.15	54.61	15.77	1279.7	79.19	16.16	32.45	2.44	13.3	265.5	0.93	285.48
2014	2078.3	112.1	18.54	2272.85	105.61	21.52	980.65	61.07	16.06	1971.4	92.13	21.4	97.4	5.51	17.68	398.35	1.03	386.75

where

MPS = Market Price Per Share

EPS = Earnings per Share

P/E = Price Earnings Ratio (MPS/EPS)

shares of Tata Motors with P/E ratio 386.75 would be the least attractive. The sole reason due to which the P/E ratio increases is that the percentage increase in the Market price per share is more than the percentage increase in the Earnings per share.

But in certain cases higher P/E ratio also attracts investors as higher P/E ratio isoften associated with growth stocks that are growing faster than average. Investors believe that such a company's earnings will be higher in future.

PEG Ratio

PEG ratio is developed by Mario Farina. PEG ratio means P/E to Growth ratio. It is calculated by dividing P/E by Annual EPS Growth.

$$PEG = \frac{P/E \text{ Ratio}}{Annual\ EPS\ Growth}$$

where

P/E = Price Earnings Ratio
Annual EPS Growth

$$= \frac{(\text{EPS of Current Year} - \text{EPS of Previous Year}) \times 100}{\text{EPS of Previous Year}}$$

Application of PEG Ratio

PEG ratio is also used for valuation. A lower PEG represents undervaluation of stock whereas a higher PEG represents overvaluation of stock. It is widely employed by the investors as it indicates the stock's possible value. The PEG ratio can offer a suggestion of whether a company's high P/E ratio reflects an excessively high stock price or is a reflection of promising growth prospects for the company.This ratio is also used by the investors to judge the different companies with different growth rates.A stock is said to be reasonably valued when the PEG ratio is equal to 1. Analysts opined that a PEG ratio between 0 and1 may provide higher returns.

Criticism

PEG ratio is criticised on various grounds. The growth considered in the calculation of PEG ratio is whether past EPS growth or the future expected EPS growth. Some analysts opine that company's future growth rate is just an estimate and it is affected by a number of factors like expansion, diversifications, market conditions etc.Criticisms of the PEG ratio include that it is an oversimplified ratio that fails to usefully relate the price/earnings ratio to growth because it fails to factor in return on equity (ROE) or the required return factor. [1]It is quite inappropriate to measure PEG where the companies are without high growth rate. Comparison between a company expecting high growth and a company expecting low growth, with the use of PEG, may not give appropriate result.The stocks with high PEG represent that the stocks are expensive but sometimes the stocks with high PEG ratio can often be more attractive investments. It is a difficult task to interpret negative PEG ratio which generally arises when there is a decrease in EPS and results in negative growth.

The calculation of PEG ratio is explained with the help of Table 2. For such calculations the data relating to the stocks of same selected automobile companies as in case of P/E, are considered.

Table 2: MPS, EPS and P/E Ratio of selected Automobile Companies

	NAME OF THE AUTOMOBILE COMPANIES											
Years	*Bajaj Auto*				*Hero Moto*				*M & M*			
	P/E	*EPS*	*Growth*	*PEG*	*P/E*	*EPS*	*Growth*	*PEG*	*P/E*	*EPS*	*Growth*	*PEG*
2010	8.54	117.7	-	-	17.38	111.77	-	-	15.31	35.61	-	-
2011	12.65	115.4	-1.954	-6.47	16.43	96.54	-13.626	-1.21	15.76	44.33	24.487	0.64
2012	16.16	103.8	-10.051	-1.61	17.27	119.09	23.3581	0.74	15.11	46.89	5.774	2.62
2013	16.96	105.2	1.3487	12.57	14.54	106.07	-10.932	-1.33	15.77	54.61	16.464	0.96
2014	18.54	112.1	6.558	2.83	21.52	105.61	-0.433	-49.62	16.06	61.07	11.829	1.36

Years	NAME OF THE AUTOMOBILE COMPANIES											
	Maruti				TVS				Tata Motors			
	P/E	EPS	Growth	PEG	P/E	EPS	Growth	PEG	P/E	EPS	Growth	PEG
2010	16.38	86.45	-	-	11.07	3.71	-	-	3.88	38.99	-	-
2011	15.95	79.22	-8.363	-1.91	14.63	4.1	10.512	1.39	8.63	28.92	-25.827	-0.33
2012	21.63	56.6	-28.553	-0.76	8.23	5.24	27.804	0.30	73.13	3.77	-86.964	-0.84
2013	16.16	79.19	39.911	0.40	13.3	2.44	-53.435	-0.25	285.48	0.93	-75.331	-3.79
2014	21.4	92.13	16.340	1.31	17.68	5.51	125.819	0.14	386.75	1.03	10.752	35.97

Analysis of Securities of Selected Automobile Companies with the help of PEG Ratio

Table 2 reveals the P/E ratio, Earnings per Share, Growth* and PEG ratio of selected automobile companies. Here growth is equal to annual EPS growth. Annual EPS growth is calculated by subtracting EPS of current year from the EPS of previous year and dividingit by EPS of previous year and multiplyingthe resultby 100. In the year 2010 the P/E ratio of Bajaj Auto, Hero Moto, Mahindra & Mahindra, Maruti, TVS and Tata Motors were 8.54,17.38, 15.31, 16.38, 11.07, and 3.38 respectively. In the year 2011 the P/E ratio of Bajaj Auto, Hero Moto, Mahindra & Mahindra, Maruti, TVS, and Tata Motors were12.65, 16.43, 15.76, 15.95, 14.63, and 8.63 respectively. Again in year 2011 the annual EPS growth of Bajaj Auto, Hero Moto, Mahindra & Mahindra, Maruti, TVS, and Tata Motors were 1.954, -13.626, 24.487, -8.363, 10.512, and -25.827 respectively. PEG ratio, which is calculated as P/E ratio upon Growth, in 2011 was -6.47 of Bajaj Auto, -1.21 of Hero Moto, 0.64 of Mahindra & Mahindra, -1.91 of Maruti, 1.39 of TVS, and -0.33 of Tata Motors. In the year 2014 PEG increased to 2.83 of Bajaj Auto, 1.36 of Mahindra & Mahindra, 1.31 of Maruti,and35.97 of Tata Motors. Such increment shows that the stocks are becoming expensive on the part of the investors as compared to the shares of Hero Moto and TVS.

Is PEG really an effective tool over P/E?

Recently few financial analysts proposed that PEG ratio is a more useful tool than P/E for valuing the automobile companies. For analysing the effectiveness of one over the other, a detailed discussion about the P/E and PEG ratio has already been mentioned above.

It can be said that from the same data relating to the stocks of selected automobile companies, the P/E and PEG ratio have been computed. PEG is just used to describe the P/E ratio in a more simple and innovative way.

Now this can be explained mathematically also.

We know that

P/E ratio should be equal to growth.

P/E = Growth

Dividing both the sides by Growth

$$\frac{P/E}{\text{Growth}} = \frac{\text{Growth}}{\text{Growth}}$$

We get

PEG = 1

From the above calculation we can say that for valuing and making comparisons among the companies, by simply comparing P/E and growth, we will arrive at the same conclusion as we can get by using PEG. The company’s growth should be more than P/E which supports the rule of PEG that, it should be between 0 and1.

Again,negative PEG ratio neither gives a clear picture about the stocks nor helps in making effective investment strategies.

In the above tables the PEG ratios are calculated by considering the one year growth. PEG ratio is not meant for automobile companies only, it can be applicable in all types of companies.The PEG ratio can also be manipulated by taking the growth over more than one year i.e. 3 or 5 years’ growth. It may give misleading results to the investors.

Hence, it can be said that PEG ratio is not an effective tool over P/E, it is simply a revision of P/E.

References

Gotwald, R. (2012). The use of the P/E ratio to stock valuation” in Grant journal ISSN 1805-062X, 1805-0638 (online), ETTN072-11-00002-09

Prasanna, C. (2011). *Financial management: Theory and practice paperback.*

Solanki,.A. H. (2014). Relationship between P/E ratio and stock return” with Reference to BSE 100 in *Global Journal for Reseach Analysis,* 3(8). ISSN No 2277 - 8160

Shen, Pu. *The P/E ratio and stock market performance.*

Web References

www.buffettsecrets.com

www.businesstoday.intoday.in

www.economictimes.indiatimes.com

www.investopedia.com

www.timesofindia.indiatimes.com

www.valuepickr.com

www.wikipedia.org

www.zigwheels.com