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A Comparative Study of Market Returns of Low P/E Stocks V/S High P/E Stocks

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Abstract

Price to Earnings (PE) Ratio has been extensively used by financial (securities) analysts and investors as an investment tool to pick which stocks to be bought. PE Ratio gains popularity among securities analysts and investors since it is easy to calculate and understand. Thus far, many securities analysts, recommend investors to buy certain stocks if their PE Ratio is low compared to their counterparts (Tseng, 1988). Stock with low PE ratio is perceived as having cheaper current price hence expected to generate higher return in subsequent period.

Proponents of the P/E vis-à-vis stock returns have long claimed that lower P/E stocks signify higher market returns (Basu, 1977). However, mixed results of the relationship between the P/E Ratio and stock return and the lack of a consensus regarding the same show that there may be some inaccuracy with this claim.

The stocks to be used in the study are chosen from the BSE sectoral indices. We chose to select 10 stocks from each index based on market capitalization and have grouped them into two categories, i.e. stocks having low P/E and stocks with high P/E. This grouping is done on the basis of the average P/E for each index and the market return analysis will then be carried out. The present paper tries to ascertain the notion that the returns performance of equity stocks is related to their P/E ratios. The data, sample, and estimation procedures are outlined in the first part of the discussion. Empirical results are discussed in the next section, and conclusions and implications of the study figure in the end.

1. Introduction

Today there is a high and increasing integration of investment and finance markets coupled with increased regulation (Ball R. & Brown P. 1968). The study of market trends and movements and its impact on economy and macro-economic variables have become more important than ever before. Stock markets perform a vital role in any modern economy. The study of stock performance thus assumes great importance in order to channelize investor funds into productive avenues of equity returns. To accomplish this important task, it becomes necessary to study equity market performance and its relationship with macroeconomics variables. Price-Earning (P/E) ratio over here is assumed to be the simplest and most popular ratio used to predict the market (Johnston, 1966).

Efficient market hypothesis advocates that stock prices fully reflect common information in an unbiased and rapid fashion (Pettit R.R. & Westerfield R. September 1974). Researchers have provided a long list of arguments and finding that support or contradict the efficient market hypothesis. Many researchers agree that P/E ratios are reliable indicators of the future return's potential of any stock. It Low P/E stocks are classified as value stocks and proponents of value investment believe that these tend to outperform high P/E stocks which are classified as growth stocks (Martin Leibowitz, Anthony Bova, 2014). Summing up, the prices of securities may be biased, and P/E helps us to uncover this bias. It would thus be contradicting efficient market hypotheses if a finding claims that returns on low P/E equities tends to be higher than warranted by the underlying risks (William Breen,

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1968), even after adjusting for any additional search and transactions costs, and differential taxes.

2. Description of Problem

Price to Earnings ratio (PE) is one of the most widely used financial ratios by financial (securities) analysts and investors as an investment tool to choose the right mix of stocks or equities to buy (Fun L.P. & Basana S.R., 2008). It has its popularity amongst the investor class because of the simplicity in its calculation and understanding. Most of the security analysts recommend investors to buy stocks with a low PE ratio when compared to their counterparts. A stock with a low PE ratio is perceived to have a lower current price as compared to its intrinsic value and is thus expected to generate a higher return in the near future.

Proponents of PE ratio vis-à-vis market returns have long claimed that lower PE stocks signify higher market returns (Trevino, Robertson, 2002). However, there may be some inaccuracy in this claim because of the mixed relationship of PE ratio and stock returns as well as a lack of consensus regarding the same. The stocks that are to be used in this study are chosen from BSE sectoral indices. We have decided to choose 10 stocks from each of these indices and have grouped them into two categories: stocks having a low PE ratio and stocks having a high PE ratio. The market return analysis will be carried out on the basis of average PE for each index.

3. Limitations of Study

The study only considers index stocks and is based on the performance of ten stocks comprising low and high P/E. Also, it restricts itself to Indian markets. The application of theory being generic, it may be applied to a variety of stocks in terms of size, sector, geography, etc. Also, there is a possible correlation between returns of stocks understudy as they belong to the same sector which may impact the result. This may be addressed if an in-depth study is undertaken sector-wise.

4. Methodology

In order to determine the relationship between Price Earnings ratio and stock performance the following steps were followed. A time length was defined for which two buckets of equities were formed belonging to same sector. One bucket comprised of low P/E stocks and other bucket comprised high P/E stocks. The risk adjusted returns of these portfolios was then compared in terms of pre specified measures.

Finally, as a test of the efficient market hypothesis, the returns of the low P/E portfolio are compared to those of the index.

4.1 Data Base and Sample Selection

The primary data used for the analysis is drawn from the following BSE sectoral indices:

1. S&P BSE BANKEX
2. S&P BSE Information Technology
3. S&P BSE Metal
4. S&P BSE Power
5. S&P BSE Fast Moving Consumer Goods
6. S&P BSE Healthcare
7. S&P BSE Auto
8. S&P BSE Oil & Gas
9. S&P BSE PSU
10. S&P BSE Tech

10 stocks are chosen from each index to form 2 buckets of 5 stocks each having a high and low P/E. The average P/E ratio for the sectorial index was taken into consideration while arriving at the portfolios for each individual index. Furthermore, the stocks selected from each bucket had to fulfil the following perquisite set of conditions:

a. the firm actually traded on the SENSEX as of the beginning of the portfolio holding period.
b. the relevant investment return and financial statement data are not missing.

The data for annual returns for each individual stock was taken for a period of 10 years 1st April 2006 - 31st March 2015 and corresponding returns for the corresponding sector indices was also obtained for the given period.

4.2 Analysis

Beginning April 1st, 2006, the returns for each individual stock for every sub portfolio in the sectoral indices were calculated on an annualized basis. Each of these portfolios may be viewed as a mutual fund with a policy of acquiring

securities in a given P/E class in one year, holding them for a year, and then reinvesting proceeds from disposition in the same class next year.

Although the construction of two portfolios is arbitrary, that number was chosen simply to represent two portfolios with a balance spread of high and low P/E stocks within each sector index.

Since over 90% of firms release their financial reports within three months of the fiscal year- end, the P/E portfolios were assumed to be purchased on the following April 1. The monthly returns on each of these portfolios were then computed for the next twelve months assuming an equal initial investment in each of their respective securities and then a buy-and-hold policy.

Results of the annual returns for each portfolio were then compared with the BSE annual returns for the particular year and the value differential was used as the basis for proving objective of the paper.

Another aspect used to verify our findings was the use of hypothesis testing for correlation between the portfolio P/E and annual returns. The data was fed into statistical modelling software and was tested with the following null hypothesis: The stocks with low P/E do not generally give higher returns.

Table 1. BANKEX Stock Portfolios

1. S&P BSE BANKEX *(Bloomberg May-2018)*

Low P/E Bracket (<12.20)			**High P/E Bracket (>12.20)**		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Canara Bank	11,953.95	5.25	Axis Bank	98,452.84	12.35
Federal Bank	9,039.90	10.67	Bank of Baroda	32,461.82	15.39
ICICI Bank	1,42,366.27	12.05	HDFC Bank	2,68,113.68	24.01
PNB	20,647.23	8.52	IndusInd Bank	56,233.41	27.74
SBI	1,62,203.23	11.41	Kotak Mahindra	1,27,323.34	72.75
			Yes Bank	29,102.76	12.92

Table 2. FMCG Stock Portfolios

2. S&P BSE FMCG *(Bloomberg May-2018)*

Low P/E Bracket (<= 51.4)			High P/E Bracket (> 51.4)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Colgate	25,051.24	44.28	Britannia	34,733.00	54.71
Marico	29,280.44	49.88	Dabur India	47,496.81	57.04
HUL	1,79,071.13	41.69	Godrej Consumer	42,512.14	62.21
ITC	2,53,035.19	26.08	Jubilant Food	9,107.50	75.97
Tata Global Bev	8,876.01	32.25	Nestle	54,253.12	76.87

Table 3. Healthcare Stock Portfolios

3. S&P BSE Healthcare *(Bloomberg May-2018)*

Low P/E Bracket (<= 29.045)			High P/E Bracket (> 29.045)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Biocon	9,445.00	13.15	Apollo Hospital	20,253.15	56.75
Cipla	45,785.34	28.43	Dr. Reddys Labs	53,042.77	30.03
Torrent Pharma	23,244.43	12.36	Lupin	81,161.36	38.38
Glenmark	20,735.80	12.71	GlaxoSmithKline	27,874.07	82.6
Cadila Health	33,455.91	17.82	Ipca Labs	7,815.51	97.84

Table 4. IT Stock Portfolios

4. S&P BSE Info Technology *(Bloomberg May-2018)*

Low P/E Bracket (<= 20.34)			High P/E Bracket (> 20.34)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
HCL Tech	1,16,691.48	19.23	Hexaware Tech	7,251.08	22.06
Infosys	2,44,084.82	15.97	Mindtree	11,829.60	21.45
MphasiS	9,835.90	18.51	Oracle Fin Serv	31,450.75	33.22
Tech Mahindra	50,498.20	17.33	Vakrangee	9,403.13	27.3
Wipro	1,37,354.36	16.62	TCS	4,72,360.84	23.2

Table 5. Metal Stock Portfolios

5. S&P BSE Metal *(Bloomberg May-2018)*

Low P/E Bracket (<14.01)			High P/E Bracket (>14.01)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Hind Zinc	58,964.33	6.87	Coal India	2,00,134.01	16.62
NALCO	10,154.32	9.25	Hindalco	16,075.91	22.05
NMDC	34,889.50	7.33	JSW Steel	24,644.77	28.16
Tata Steel	24,474.63	4.48	Vedanta	25,214.72	17.32

Table 6. Auto Stock Portfolios

6. S&P BSE Auto *(Bloomberg May-2018)*

Low P/E Bracket (<29.44)			High P/E Bracket (>29.44)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Bajaj Auto	68,308.69	19.68	Ashok Leyland	22,592.30	31.90
Bharat Forge	17,979.51	23.36	Bosch	50,656.47	48.36
Exide Ind	10,616.50	18.21	Cummins	26,845.43	34.50
Hero Motocorp	51,480.44	19.94	Eicher Motors	49,226.14	56.55
M&M	75,608.68	23.13	Motherson Sumi	35,539.15	57.77
Maruti Suzuki	1,12,471.96	23.82			
MRF	14,500.34	8.91			
Tata Motors	1,14,519.32	16.60			

Table 7. Power Stock Portfolios

7. S&P BSE Power *(Bloomberg May-2018)*

Low P/E Bracket (<52.63)			High P/E Bracket (>52.03)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Reliance Power Ltd	12,665.15	43.00	ABB India Ltd	24,328.24	95.52
Bharat Heavy Electricals Ltd	31,708.66	34.09	Siemens Ltd	37,335.65	60.88
NTPC Ltd	1,03,892.80	9.92	GMR Infrastructure Ltd	7,212.95	398.33
Tata Power Company Ltd Thermax Ltd	15,984.36 9,470.64	16.51 28.99	Alstom T&D India Ltd	11,117.69	90.84

Table 8. PSU Stock Portfolios

8. S&P BSE PSU *(Bloomberg May-2018)*

Low P/E Bracket (<16.08)			High P/E Bracket (>16.08)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Allahabad Bank	3,128.92	4.53	BEML	4,293.55	81.96
Corporation Bk	3,926.34	6.71	Bharat Elec	29,608.80	23.03
NMDC	33,541.50	7.04	BHEL	32,504.13	34.95
NTPC	1,02,820.94	9.82	Container Corp	21,936.55	23.37
SBI	1,28,032.22	9	EngineersInd	6,059.80	20.53

Table 9. Oil and Gas Stock Portfolios

9. S&P BSE Oil and Gas *(Bloomberg May-2018)*

Low P/E Bracket (<10.57)			**High P/E Bracket (>10.57)**		
Company Name	**Mkt Cap (Rs. Cr.)**	**P/E Ratio**	**Company Name**	**Mkt Cap (Rs. Cr.)**	**P/E Ratio**
BPCL	60,974.08	8.97	GAIL	43,318.50	21.88
HPCL	25,336.09	8.16	IGL	7,730.11	18.97
IOC	95,734.17	9.81	Reliance	3,14,990.53	11.96
Oil India	20,528.79	8.21	Petronet LNG	19,766.25	20.61
ONGC	1,88,178.01	10.57			

Table 10. TECk Stock Portfolios

10. S&P BSE TECk *(Bloomberg May-2018)*

P/E Bracket (<20.79)			High P/E (>20.79)		
Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio	Company Name	Mkt Cap (Rs. Cr.)	P/E Ratio
Bharti Airtel	1,22,760.16	12.59	Bharti Infratel	69,171.45	41.44
DB Corp	5,892.48	19.7	Dish TV	8,564.22	25.27
Finolex Cables	3,460.25	17.47	Just Dial	4,020.85	26.17
HFCL	2,354.82	8.92	Oracle Fin Serv	30,972.49	32.17
HT Media	1,743.39	19.36	PVR	3,451.29	38.53
Idea Cellular	36,526.23	12.19	Tata Comm	10,744.50	28.3
Sun TV Network	13,810.70	16.59	TV18 Broadcast	6,891.73	55.07
			Zee Entertain	39,133.48	47.38

The hypothesis will be tested comparing the means of the P/E ratio of the portfolios of the low and high P/E stocks. The value of the means obtained will be the determinant to either reject or accept the null hypothesis and arrive at a conclusion regarding the relationship between the market returns and stock P/E.

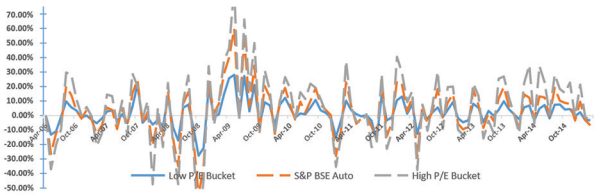
The test buckets considered were as follows:

5. Results

The average returns of each of the above portfolios was calculated independent of the other indices and the results thus obtained were tested statistically and the average returns of each of the portfolios was matched with each other.

Upon comparing the results for the various indices using graphical and statistical tools, we observed the following results for each individual index:

1. Auto



S&P BSE Auto Annualized Returns

PE_Case	Mean	N	Std. Deviation
Low PE	18.37%	10	.090803
High PE	25.05%	10	.089444
Total	21.71%	20	.089976

Figure 1. Auto Annualized Mean Returns.

Based on the above analysis for the auto sector, we inferred that he average annualized returns for the stocks with low P/E stood at 18.37% from 2006 vis-à-vis The annualized returns for high P/E stocks which gave a return of 25.05% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the auto sector.

P value and statistical significance:

The two-tailed P value equals 0.5892

By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval:

The mean of Group One minus Group Two equals 0.15865000 95% confidence interval of this difference: From -0.44753777 to 0.76483777

Intermediate values used in calculations:

t = 0.5498

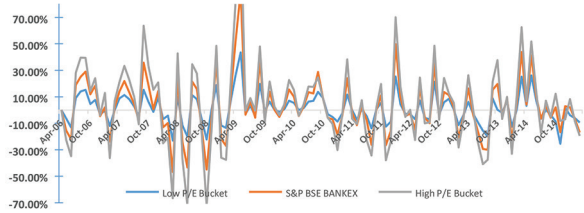
df = 18

standard error of difference = 0.289

2. BANKEX

Based on the above analysis for the banking sector, we inferred that the average annualized returns for the stocks with low P/E stood at 8.28% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 21.6% to the investors.

Hence the assumption that low P/E stocks give higher returns than high P/E stocks does not hold true for the banking sector, but in fact high P/E stocks give higher returns than Low P/E stocks



S&P BSE BANKEX

PE_Case	Mean	N	Std. Deviation
Low PE	8.28%	10	.112882
High PE	21.64%	10	.114653
Total	14.96%	20	.113701

Figure 2. BANKEX Annualized Mean Returns.

P value and statistical significance

The two-tailed P value equals 0.0171

By conventional criteria, this difference is considered to be statistically significant.

Confidence interval

The mean of Group One minus Group Two equals -0.13360000 95% confidence interval of this difference: From - 0.24049479 to -0.02670521

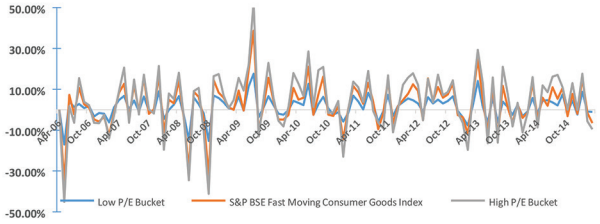
Intermediate values used in calculations

t = 2.6258

df = 18

standard error of difference = 0.051

3. FMCG



S&P BSE FMCG

PE Case	Mean	N	Std. Deviation
Low PE	15.12%	10	0.053296
High PE	14.39%	10	0.047665
Total	14.76%	20	0.050442

Figure 3. FMCG Annualized Mean Returns.

Based on the above analysis for the FMCG sector, we inferred that the average annualized returns for the stocks with low P/E stood at 15.12% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 14.39% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the FMCG sector.

P value and statistical significance

The two-tailed P value equals 0.7505 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.00730000 95% confidence interval of this difference: From -0.04020324 to 0.05480324

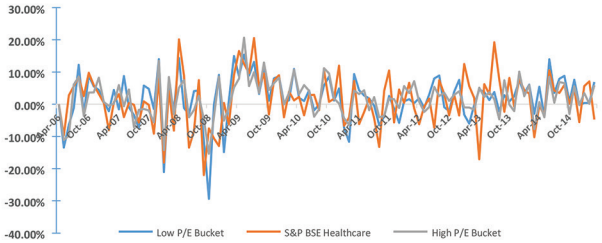
Intermediate values used in calculations

t = 0.3229

df = 18

standard error of difference = 0.023

4. Healthcare



S&P BSE Healthcare

PE_Case	Mean	N	Std. Deviation
Low PE	19.27%	10	.070489
High PE	18.79%	10	.057187
Total	19.03%	20	.064033

Figure 4. Healthcare Annualized Mean Returns.

Based on the above analysis for the Healthcare sector, we inferred that the average annualized returns for the stocks with low P/E stood at 19.27% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 18.79% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the Healthcare sector.

P value and statistical significance

The two-tailed P value equals 0.7367 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.00980000 95% confidence interval of this difference: From -0.05050437 to 0.07010437

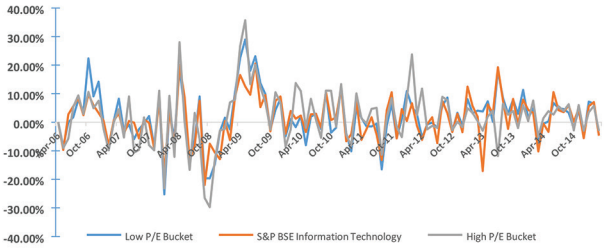
Intermediate values used in calculations

t = 0.3414

df = 18

standard error of difference = 0.029

5. Information Technology



S&P BSE Information Technology

PE_Case	Mean	N	Std. Deviation
Low PE	19.86%	10	.088537
High PE	18.83%	10	.099071
Total	19.35%	20	.093732

Figure 5. IT Annualized Mean Returns.

Based on the above analysis for the IT sector, we inferred that the average annualized returns for the stocks with low P/E stood at 19.86% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 18.83% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the IT sector.

P value and statistical significance

The two-tailed P value equals 0.8091 By conventional criteria, this difference is considered to be not statistically significant.

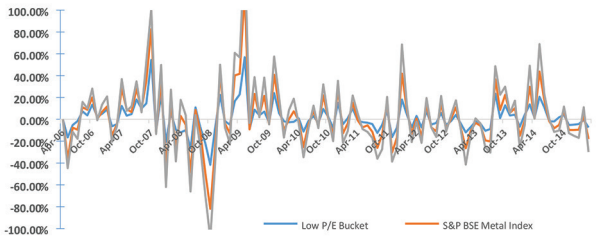
Confidence interval

The mean of Group One minus Group Two equals 0.01030000 95% confidence interval of this difference: From -0.07797344 to 0.09857344

Intermediate values used in calculations

t = 0.2451
df = 18
standard error of difference = 0.042

6. Metal



S&P BSE Metal

PE_Case	Mean	N	Std. Deviation
Low PE	13.38	10	.131474
High PE	10.94	10	.107342
Total	12.16	20	.119740

Figure 6. Metal Annualized Mean Returns.

Based on the above analysis for the Metal sector, we inferred that the average annualized returns for the stocks with low P/E stood at 13.38% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 10.94% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the Metal sector.

P value and statistical significance

The two-tailed P value equals 0.6548 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

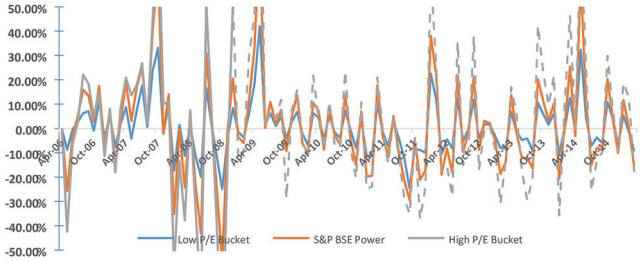
The mean of Group One minus Group Two equals 0.02440000 95% confidence interval of this difference: From -0.08836247 to 0.13716247

Intermediate values used in calculations

t = 0.4546
df = 18
standard error of difference = 0.054

7. Power

Based on the above analysis for the Power sector, we inferred that the average annualized returns for the stocks with low P/E stood at 6.94% from 2006 vis-à-vis



S&P BSE Power

PE_Case	Mean	N	Std. Deviation
Low PE	6.94%	10	.106713
High PE	6.61%	10	.117548
Total	6.77%	20	.111998

Figure 7. Power Annualized Mean Returns.

the annualized returns for high P/E stocks which gave a return of 6.61% to the investors.

Although the returns of both the portfolios are comparable, however, the value for low P/E is higher than that of the High P/E. Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the Power sector.

P value and statistical significance

The two-tailed P value equals 0.9530 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.00300000 95% confidence interval of this difference: From -0.10247392 to 0.10847392

Intermediate values used in calculations

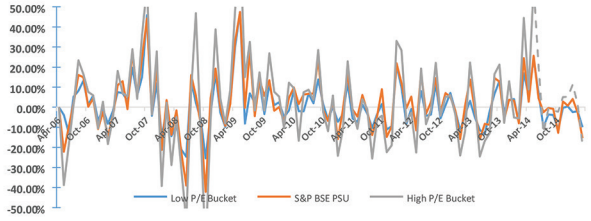
t = 0.0598
df = 18
standard error of difference = 0.050

8. PSU

Based on the above analysis for the PSU sector, we inferred that the average annualized returns for the stocks with low P/E stood at 8.84% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 7.51% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the PSU sector.

P value and statistical significance



S&P BSE PSU

PE_Case	Mean	N	Std. Deviation
Low PE	.00884	10	.115135
High PE	.00751	10	.106641
Total	.00817	20	.110711

Figure 8. PSU Annualized Mean Returns.

The two-tailed P value equals 0.7917 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.01330000 95% confidence interval of this difference: From -0.09096247 to 0.11756247

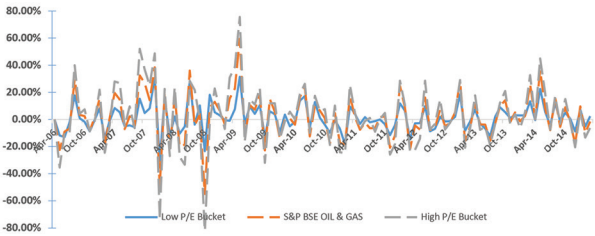
Intermediate values used in calculations

t = 0.2680

df = 18

standard error of difference = 0.050

9. Oil & Gas



S&P BSE Oil and Gas

PE_Case	Mean	N	Std. Deviation
Low PE	11.86%	10	.102607
High PE	10.02%	10	.078881
Total	10.94%	20	.091305

Figure 9. Oil & Gas Annualized Mean Returns.

Based on the above analysis for the Oil and Gas sector, we inferred that the average annualized returns for the stocks with low P/E stood at 11.86% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 10.02% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the Oil and Gas sector.

P value and statistical significance

The two-tailed P value equals 0.6584 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.01840000 95% confidence interval of this difference: From -0.06758503 to 0.10438503

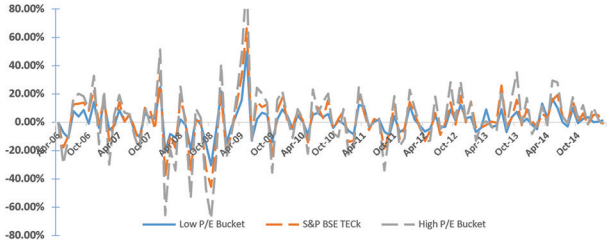
Intermediate values used in calculations

t = 0.4496

df = 18

standard error of difference = 0.041

10. TECk



S&P BSE TECk

PE_Case	Mean	N	Std. Deviation
Low PE	.00940	10	.098626
High PE	.00724	10	.093554
Total	.00832	20	.095904

Figure 10. TECk Annualized Mean Returns.

Based on the above analysis for the Technology sector, we inferred that the average annualized returns for the stocks with low P/E stood at 9.40% from 2006 vis-à-vis the annualized returns for high P/E stocks which gave a return of 7.24% to the investors.

Hence the assumption that low P/E stocks give higher returns than High P/E stocks does not hold true for the Oil and Gas sector.

P value and statistical significance

The two-tailed P value equals 0.6214 By conventional criteria, this difference is considered to be not statistically significant.

Confidence interval

The mean of Group One minus Group Two equals 0.02160000 95% confidence interval of this difference: From -0.06871389 to 0.11191389

Intermediate values used in calculations

t = 0.5025

df = 18

standard error of difference = 0.043

6. Conclusion

In this paper an attempt was made to determine empirically the relationship between investment performance of equity securities and their P/E ratios. While the efficient market hypothesis denies the possibility of earning excess returns, the price-ratio hypothesis asserts that P/E ratios, due to exaggerated investor expectations, may be indicators of future investment performance.

The results reported in this paper are inconsistent with the view that P/E ratio information was not "fully reflected" in security prices in as rapid a manner as postulated by the semi-strong form of the efficient market hypothesis (Latane H.A. & Young W.E. September 1969). Instead, it seems that equilibria persisted in capital markets during the period studied barring banking segment.

Furthermore, the tests and the analysis was carried out with the assumption that the stocks have no significant correlation amongst themselves and that the returns of each individual stock in the 3 portfolios for each of the individual indices are independent of each other.

This assumption, however, is not true in its entirety and there exists a correlation within cross sector stocks, which may have an inherent impact on the overall returns of an individual portfolio.

In conclusion, the behavior of security prices over the 10-year period studied is, perhaps, not completely described by the efficient market hypothesis. Though the low P/E portfolios did not earn superior returns on a risk-adjusted basis for most of the indices, the propositions of the price-ratio hypothesis on the relationship between investment performance of equity securities and their P/E ratios seem to be invalid.

Contrary to the growing belief that publicly available information is instantaneously impounded in security prices, there seem to be lags and frictions in the adjustment process. As a result, publicly available P/E ratios seem to possess "information content" and may warrant an investor's attention at the time of portfolio formation or revision.

Furthermore, although the results obtained in most of the individual indices were out of line with the hypothesis that Low P/E stocks deliver greater returns than High P/E stocks, there were instances like the BANKEX index where this hypothesis failed.

Additionally, the returns of the portfolios in the Power sector are almost comparable. This can be attributed to the fact that we have typically considered only 5-7 stocks in each individual test bracket for every index and this may lead to the data being slightly distorted in nature.

7. References

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