Case 1: Analyzing the distribution of Annual Net income

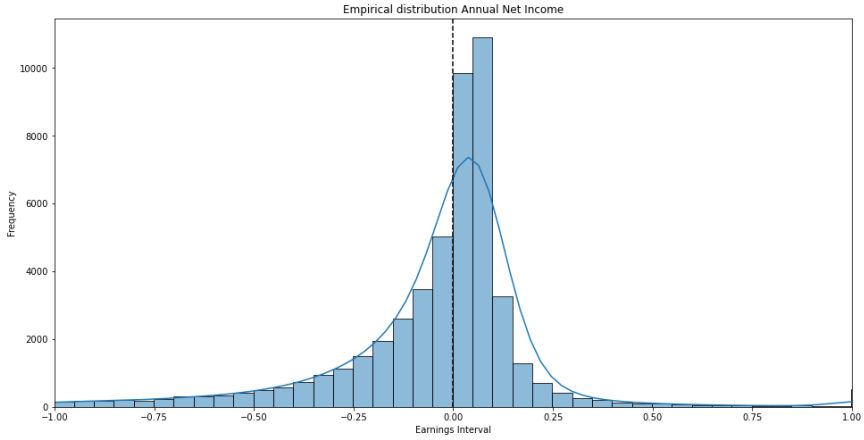

Fig 1: A total of 9034 firms are analyzed here; The y-axis represents the number of firm years by earnings interval, over the period 2000 to 2010 and the x-axis represents the total net income of a firm scaled according to their market value

Observations:

- The plot of net annual income seems to follow a normal distribution which is slightly skewed towards left
- It appears that most firms have their annual income **just** above zero
- As clearly evident from fig. 2, when compared around the vicinity of zero (net earnings), most firms tend to report a positive earning (almost double) than reporting a negative earning

Insights: **Observed** Earnings Management

From the above graph it is evident that most firms tend to push their net earnings towards a positive side (no matter the margin); in doing so the firm can create a false sense of profitability amongst various investors, share-holders and analysts and thus creating a false positive overall image of the firm.

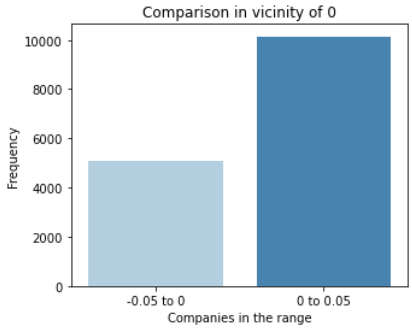

Fig 2: Depicts the number of companies in the vicinity of zero annual net income

Case 2: Analyzing the distribution of Change in Annual Earnings

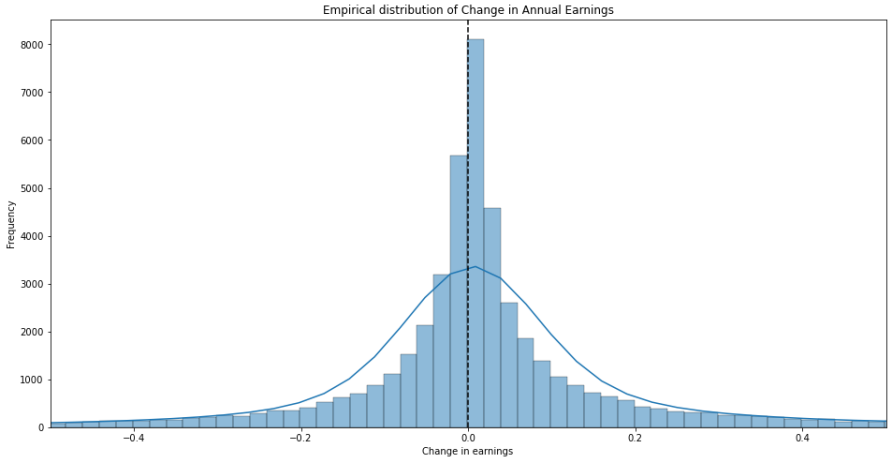

Fig 3: A total of 9034 firms are analyzed here; The y-axis represents the number of firm years by earnings interval, over the period 2000 to 2010 and the x-axis represents the change in earnings of a firm for two consecutive years scaled according to their market value

Observations:

- The plot of change in earnings for various firms over the years seems to follow a normal distribution with no visible skew.
- From fig. 4, when compared around the vicinity of zero (i.e., NO change in earnings), there is very less comparable difference between the frequency of the firms which reports small increases in earnings & those who reports small decreases in earnings

Insights: Earnings Management **Inconclusive**

As the distribution of figure 3 closely follows a normal distribution with no apparent skew, it indicates that there is no visible abrupt change in earnings. Although, it might seem that most firms have a positive change in earnings (max. just above zero), but when the number of firms are compared around the vicinity of zero (change in earnings) there doesn't seem to be a comparable difference (as evident from fig. 4). Thus, in this case the presence of earnings management can't be stated!

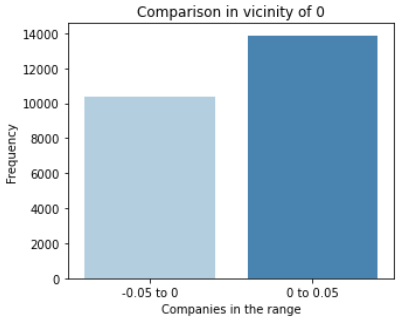

Fig 4: Depicts the number of companies in the vicinity of zero change in earnings

Case 3: Analyzing the distribution of Meeting Analyst Forecasts

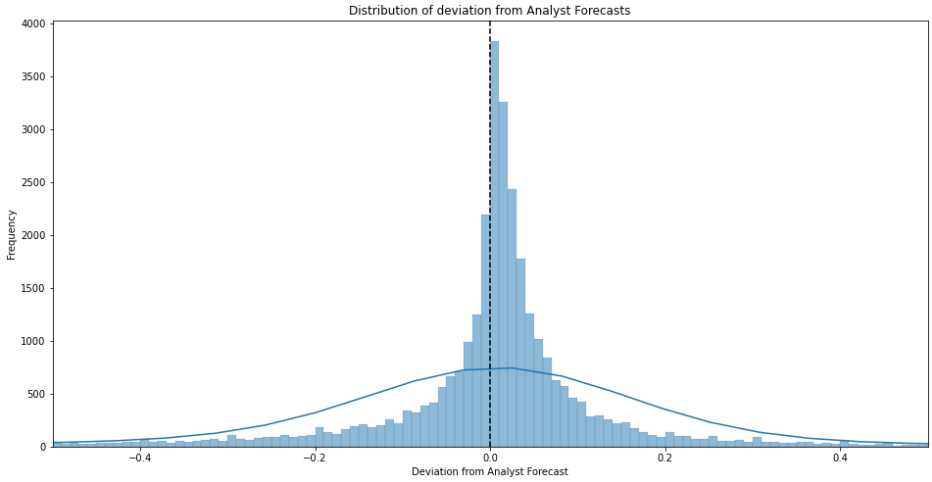

Fig 5: A total of 6864 firms are analyzed here; The y-axis represents the number of firm years by earnings interval, over the period 2000 to 2010 and the x-axis represents the deviation of earnings from the analyst forecasts for a given year.

Observations:

- The plot of deviation of earnings from analyst forecast seems to follow a normal distribution with most values around 0 (has a low std. deviation)
- As clearly evident from fig. 6, when compared around the vicinity of zero (i.e., NO deviation), most firms tend to either just meet or exceed the analyst forecast (almost double) rather than not being able to meet it

Insights: **Observed** Earnings Management

Analyst forecasts are so powerful that even small deviations can send a company's stock higher or lower. In general, if a firm exceeds analyst forecasts their stock prices increases; but on the other hand, if a firm is unable to meet the expectations, their share price can take a hit; this gives the firm an incentive to manage their earnings in order to meet the analyst forecast. From the above graph it is evident that most firms tend to push their earnings in such a way so that they can either just meet or exceed the forecasted earnings. Thus, indicating the presence of earnings management.

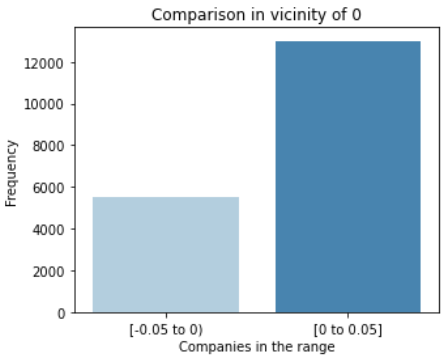

Fig 6: Depicts the number of companies in the vicinity of zero deviation