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The Use and Abuse of Non-GAAP Financial Measures: An Exploratory Study of Indian Companies

R. Narayanaswamy
Professor
Finance & Accounting
Indian Institute of Management Bangalore
Bannerghatta Road, Bangalore – 5600 76
narayan@iimb.ac.in

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Abstract

Indian companies use non-GAAP financial measures in addition to GAAP measures. Unlike GAAP measures, non-GAAP measures are not defined well. This creates conditions for managers to use these measures opportunistically to distort performance reporting and analysis. A relatively weak legal system and the absence of shareholder litigation in India make the abuse of these measures more likely than in developed countries. This study provides preliminary evidence based on annual reports for 187 firm-years for 54 firms about the use of non-GAAP measures in India. The evidence includes archival and anecdotal data. The evidence indicates that managers often use such measures opportunistically when faced with decline in sales or profit growth.

Keywords: non-GAAP earnings, reporting consistency, earnings comparability

JEL classification: G14, M40, M41, M48

I. INTRODUCTION

A non-GAAP financial measure, or more commonly pro forma financial measure, is a measure of past or future financial performance, financial position, or cash flows that differs from a measure defined by applicable GAAP.[1] *Pro forma* literally means "as a matter of form". A pro forma measure excludes (includes) items that are (are not) a part of the comparable measure in the GAAP financial statements. Non-GAAP measures are "as if" profit calculations. EBIT (earnings before interest and tax), EBITDA (earnings before tax, depreciation and amortization) and EBITDAR (earnings before tax, depreciation, amortization and restructuring or rental) are commonly used non-GAAP financial measures. Non-GAAP measures reported by Indian companies include value added, human resources and brand valuation, and oil and gas reserves.

II. REGULATION OF NON-GAAP FINANCIAL MEASURES

Non-GAAP financial measures became popular during the dotcom boom. Commentators blamed the boom and its subsequent bust on the use of non-GAAP measures such as EBITDA. A former chief accountant of the U.S. Securities and Exchange Commission (SEC) called them "EBS" or "Everything but Bad Stuff" (Turner 2000). He mentioned that some earnings releases used earnings before marketing costs, cash earnings per share, earnings before losses from new product lines, and any one or combinations of the above, but with one-time gains from sale of investments added back. The Sarbanes-Oxley Act of 2002 directed the SEC to implement and enforce rules requiring that, when non-GAAP financial measures are disclosed, they must be presented in a manner that (1) does not contain an untrue statement of a material fact or omit a material fact necessary to make the "pro forma financial information," in light of the circumstances under which they are presented, not misleading, and (2) reconciles the "pro forma financial information" presented with the financial condition and results of operations of the company under US GAAP (SOX 2002). The U.K. Financial Reporting Council (FRC) has stated that it will continue to monitor and question the use of non-GAAP measures (FRC 2017). The Australian Securities and Investments Commission (ASIC) provides guidelines on non-IFRS information in financial and non-financial reports and other documents (ASIC 2011).

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[1] Synonyms for pro forma measure include adjusted financials, alternative performance measures, anti-GAAP measure, bespoke numbers, custom reporting, and fantasy accounting.

III. PRIOR RESEARCH

Prior research suggests that non-GAAP metrics may enhance the information in earnings about firms' ongoing performance (e.g. Black, Christensen, Ciesielski, and Whipple 2021). Graham, Harvey, and Rajgopal (2005) survey managers and find evidence consistent with firms emphasizing non-GAAP metrics when they have weak GAAP earnings. Bradshaw and Sloan (2002) provide empirical evidence on non-GAAP reporting in the US and find that investors began to respond more to street earnings than to GAAP earnings after 1992. Bhattacharya, Black, Christensen, and Larson (2003) find that investors view manager-adjusted non-GAAP earnings to be more informative than GAAP operating earnings.

Frederickson and Miller (2004) and Elliott (2006) find that the existence of a non-GAAP number in the earnings press release, as well as the relative placement of the non-GAAP and GAAP earnings figures within the press release, affect the judgments of less sophisticated investors. Curtis, Li, and Patrick (2017) find that the majority of earnings performance measures used by S&P 500 firms in CEO annual bonus plans are adjusted earnings measures. Bradshaw and Sloan (2002) note that since non-GAAP exclusions frequently relate to expenses, non-GAAP reporting might actually represent an attempt by managers and analysts to report higher performance metrics to garner higher valuations. Researchers frequently focus on these two incentives, informativeness versus opportunism, when investigating motives for non-GAAP reporting.

In the UK, Lin and Walker (2000) compare the value relevance of GAAP earnings following the release of a new reporting standard and an alternative "non-GAAP" earnings measure.

IV. NON-GAAP FINANCIAL MEASURES IN INDIA

There are no guidelines or regulations on the use of non-GAAP measures in India. *The Companies Act of 2013* and the earlier *Companies Acts* require companies to prepare the financial statements that give a true and fair view of their financial position and performance. The guidelines on disclosure of information by listed companies issued by the Securities and Exchange Board of India (SEBI) do not refer to the use of non-GAAP measures. However, companies have been using non-GAAP measures for a long time. In recent years non-GAAP measures have been used to explain differences in the reported profit arising from the introduction of Indian Accounting Standards (Ind AS), the Indian version of International

Financial Reporting Standards (IFRS).[2] In a survey on Ind AS adoption 75 per cent of the respondents expected reporting of additional non-GAAP financial measures on the transition to Ind AS (PwC India 2016). In contrast, another survey suggests that companies did not provide any alternative or non-GAAP financial information for explaining their performance when they moved to Ind AS (EY 2016).

V. METHOD AND SAMPLE

In order to identify the non-GAAP financial measures used in India, we examined the company annual reports, earnings releases, earnings call transcripts, analyst reports and news reports. In the absence of availability of non-GAAP financial measures in databases, data had to be hand collected from financial statements, chairman's speech, directors' report, management discussion and analysis section and performance trends in annual reports and from earnings releases, call transcripts, analyst reports and news reports.

Our sample consists of 54 non-financial companies from the Nifty 100 companies. The study period is fiscal years 2013 to 2017. 44 companies reported non-GAAP financial measures in or more years. In all non-GAAP measures were available for 187 firm-years. Thus, a significant proportion of companies use non-GAAP measures in their reports.

VI. DATA AND ANALYSIS

Table 1 summarizes the non-GAAP measures used by companies. The frequency reported consists of all measures used by companies. Therefore, the total exceeds 44. By far, EBITDA is the most popular measure. EBITDA margin is the next most popular measure. Seven companies use it along with EBITDA, two companies use it along with other measures and one company uses it without any other measure. Operating profit and economic value added are the least used among the well-known measures.

From Table 2, we note that in 30 firm-years (16.04 percent) one or more non-GAAP measures were introduced or removed as compared to 157 firm-years (83.96 percent) in which same measures were reported. This suggests significant opportunistic reporting of non-GAAP measures by managers in the absence of regulation on the use of these measures. Inconsistency in using non-GAAP measures creates the possibility for abuse with the intention of misleading the users of the financial statements.

[2] Over half of India Inc not ready for Ind AS implementation: PwC, Business Standard, March 20, 2016.

Table 3 presents an analysis of the possible reasons for change in reporting non-GAAP measures. The analysis shows that non-GAAP measures were introduced in 16 firm-years, withdrawn in 6 firm years and changed in 8 firm-years. Overall, in 53 per cent of the cases, the change in reporting of non-GAAP measures had a correlation with change in revenue or profits. It appears that when financial performance is not satisfactory, there are changes from profit-making to loss-making and vice versa, there are significant decline in revenue or profit growth, companies relied more on non-GAAP measures or changed the measures used. In such circumstances, the use of non-GAAP measures has the potential to distort comparisons.

Table 4 presents an analysis of the use of non-GAAP measures in earnings calls comparing them with those used in annual reports. Out of 54 companies for which information is available, 29 companies used the same non-GAAP measures in both earnings calls and annual reports. Of them, 19 companies used these measures inconsistently. These companies either used different non-GAAP measures in different years or reported non-GAAP measures in some years but not other years. For five companies the numbers in the non-GAAP measures used in earnings calls did not match with those in annual reports. Of the 19 companies that used the measures inconsistently, 15 companies had an increase or decrease in sales or profit or sales or profit growth rate. It appears that they may have used the measures opportunistically.

Next, we investigate whether firms will change/add/remove non-GAAP measures if they have reasons to do so. The firm-years are divided into five groups. There were 103 instances in which firms potentially had incentive to change, add or remove a non-GAAP measure. In all, 19 times the companies changed the measure. Table 5 summarizes these instances. In three groups, the sign is positive and it is negative in 2. The binomial probabilities for n=5 and p=0.2 are given below:

Number of + signs	Probability
0	0.32768
1	0.4096
2	0.2048
3	0.0512
4	0.0064
5	0.0003

Performing an addition of probability of obtaining 3, 4 or 5 signs, we get a p-value of 0.05792. So, we fail to reject null hypothesis with a level of significance 0.05. So, one out of five firms is likely to change a non-GAAP measure when they have an incentive to do so.

Finally, we investigate whether the behaviour of firms is consistent in terms of changing non-GAAP measures. Performing the Kruskal-Wallis test and dividing the firms into three cohorts, the probability of changing the non-GAAP when incentive was present was used to rank the firms across the three cohorts. The rank obtained and the procedure followed is as depicted in the table below:

Cohort A	Ratio	Rank	Cohort B	Ratio	Rank	Cohort C	Ratio	Rank
20	0.13	3.5	20	0.4	10	30	0.16	5
20	0.17	6	20	0.3	9	36	0.19	7
20	0.2	8	20	0.5	11.5	20	0.5	11.5
20	0.13	3.5	20	0	1.5	20	0	1.5
		21			**32**			**25**

Using K = 3 (number of groups) and a significance level of 0.1, we fail to reject the hypothesis that the behaviour of companies is identical with 0.1 level of significance.

We studied the analyst reports of all the 44 companies in our sample that report non-GAAP measures. We found that all these analyst reports reported non-GAAP measures especially EBITDA. The non-GAAP measures reported by companies were further modified by analysts to come up with their own measures. These non-GAAP measures are used by analysts as starting point for valuation purpose. Of the 44 companies, analysts in 42 companies used non-GAAP measures as valuation inputs. This clearly indicates that investors rely on non-GAAP measures for decision-making.

VII. ANECDOTAL EVIDENCE

In this section we provide examples of firms that made opportunistic use of non-GAAP measures. The selected firms, while by no means random or representative, are drawn from several industries and have differing ownership characteristics in order to convey the extent to which the use (or abuse) of the measures is pervasive.

1. Infosys Ltd

Infosys has often been cited as among the best companies in India in corporate governance practices. Therefore, it is instructive to review its use of non-GAAP measures. The company uses non-GAAP measures somewhat inconsistently. In fiscal years 2013 and 2014, the company reported operating profit. With the appointment of Vishal Sikka as CEO, the company switched to reporting operating margin in 2014. However, when the margins declined in 2015, the company reported PBITDA in place of operating margin. In 2017, when margins improved, the company reported both PBITDA and operating margin. A similar pattern is seen in the earnings call. This indicates opportunistic use of non-GAAP measures.

2. Hindalco Ltd

Due to intense competition from China, the profits of Hindalco have consistently fallen from 2012 to 2017. During 2012-2014, the year-on-year fall in profits was less (in the range of 10 to 30 per cent). During those years, the company reported EBITDA consistently. However, in later years when the year-on-year fall in profits jumped to the range of 60-90 per cent, company changed its non-GAAP measure to PBITDA, and in the first year of change, the comparable figure for last year was also not reported. In the earnings call with investors, the management also avoided the question for such change stating "PBITDA is a better measure for reporting the true financial performance of the company'".

3. Indiabulls Housing Finance Ltd

The company has reported good revenue and profit growth in the last five years. It reports Profit before Depreciation and Amortization (PBDA) in its financial statements. Interestingly, the growth in PBDA has always been better than growth in profit after tax (PAT) for the company, as shown in following table:

Year	Growth in PBDA (%)	Growth in PAT (%)
2012-13	72	70
2013-14	28	23
2014-15	34	31
2015-16	20	16
2016-17	29	24

As the growth in PBDA has always been greater then growth in PAT, the company highlights the PBDA growth rate. Also, the company emphasizes PBDA in earnings calls.

4. Hindustan Unilever Ltd

From year 2012 to 2016, the company had a sales growth rate higher than the industry average, and India's GDP growth rate. However, in 2017 when the sales of company were almost flat, the company introduced reporting of EBITDA in the financial statements. However, no comparable figure from last year was reported.

5. Bharti Infratel

Bharti Infratel has consistently reported EBITDA as a non-GAAP measure in its annual reports. We calculated EBITDA figures from the financials and compared them with those stated by the company. In this case, we found several discrepancies. There is mismatch in sales figures and EBITDA figures within the annual report for the year FY2017. EBITDA figures for some past years have been given in the FY2017 Annual Report as a part of "Performance Review" section. However, the EBITDA figures given in this section do not match with the actual EBITDA of previous years or even the EBITDA stated by the company in annual reports of previous years. Also, EBITDA of FY2013 does not match with the EBITDA calculated from financials and there is no calculation provided by the company to show the EBITDA figure has been arrived at.

6. Cipla Limited

The company appears to be managing its disclosure of pro forma measures to cover up poor performance. In FY2013, PAT increased by 34 per cent. However, in FY2012 and in FY2011, PAT decreased by 8 per cent and 15 per cent respectively. Only in these years, the company disclosed EBITDA amounts in the annual reports. As soon as performance improved in FY2016 with increase in PAT by 18 per cent, the company discontinued disclosing EBITDA. EBITDA of ₹21.33 billion stated by the company in FY2014 does not even match with EBITDA calculated from the financial statements.

In earnings calls the company reported PAT and EBITDA from FY2015 onwards. Only in FY2015, when the PAT decreased by 15 per cent as compared to FY2014, the company did not disclose the EBITDA amount and instead turned around the interviewer's question by saying "absolute EBITDA increased by 130 basis points whereas margin fell by 190 basis points".

7. Coal India Limited

Coal India showed very strong performance in FY2014 when its PAT increased by 17 per cent as compared to the previous year. However, the performance fell thereafter with negative growth of 13 per cent in FY2014 and 9 per cent in FY2013. It was only in 2014 when the negative growth started that the company started publishing statement of economic value added in its annual report. It is, however, interesting that in spite of publishing entire calculation, the final amount of Economic Value added was not stated anywhere in the annual report, not even as a part of the "EVA statement". The company stated the EVA figure for the first time in FY2016. Whether this was an omission on the part of the company is unclear.

8. Bosch Limited

Growth rates of PAT of Bosch in the years FY2015, FY2016 and FY2017 are as below:

Year	Growth in PAT %
FY2015	51
FY2016	-7
FY2017	51

It is notable that FY2016 was the only year in which the company reported a non-GAAP measure, EBIT, in the chairman's speech and MDA sections of its annual report. This raises a question whether reporting EBIT instead of PAT was done only to show a better performance than it actually was.

9. Dr. Reddy's Laboratories Limited

The adjusted EBITDA figures given in the annual report do not tally with EBITDA calculated from financials. Detailed calculations are not provided by the company in the annual report. Also, there are severe inconsistencies in the way in which the company reports EBITDA in earnings calls. In FY2013 and FY2014, DRL reported annual EBITDA numbers. In FY2015 and FY2016, it did not state the annual EBITDA numbers. In FY2017, the company mentioned that it incurred EBITDA loss of ₹80 million in the previous year with no mention of current year's EBITDA.

10. Sun Pharmaceuticals Limited

In FY2015, Sun Pharmaceuticals added Adjusted EPS (non-GAAP) as a reporting measure, to the earlier reported Basic and Diluted EPS numbers (GAAP measures). Further, under the financial highlights section, it switched from showing the basic EPS number to only showing an "adjusted" EPS number. The adjusted EPS number was calculated after adjusting for exceptional items and showed a consistent EPS growth path for the company, as against basic EPS which had a fluctuating trend. Further, the growth in current year EPS was also highlighted better using "adjusted" EPS (44 per cent) than basic EPS (24.3 per cent).

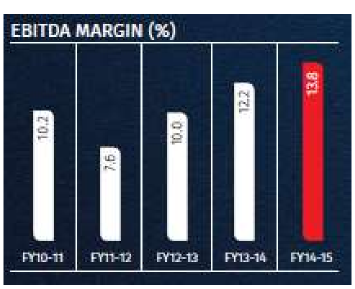
	YoY Growth %	
Year	**Adjusted EPS**	**Basic EPS**
2015	44.3	24.3
2014	5.6	-47.2
2013	11.7	12.1
2012	48.0	46.9
2011	33.9	-73.2

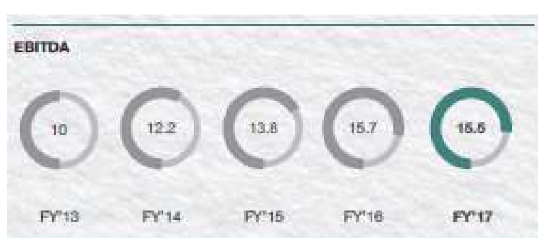
11. Maruti Suzuki Limited

Till 2014, Maruti Suzuki was reporting PAT (GAAP measure) and PAT Margin. In 2015, it started to report EBITDA Margin for the company (also using that as the primary metric under financial highlights section). The EBITDA Margin better highlighted the earnings growth trajectory of the company showing a 22 per cent CAGR over reported period compared to 17 per cent for PAT.

	Margin (%)	
Year	**EBITDA**	**PAT**
2015	13.8	7.6
2014	12.2	6.5
2013	10.0	5.6
2012	7.6	4.7
CAGR	22	17

Another interesting aspect to note is when in FY2017, the company's EBITDA margin fell from 15.7 per cent to 15.5 per cent the company altered the form of graphical presentation of the reported metric to its shareholders in the financial highlights section (beginning of their annual report). Bar graph is considered to be a much clearer format when it comes to highlighting growth/de-growth. The new form of presentation, even though it accurately displayed the statistic, might have suggested a distorted/misleading picture.





12. Piramal Enterprises Limited

Interestingly, the growth in the EBITDA figure has always been greater than that of the growth in the PAT figures. In the year 2013, when the PAT had declined, the EBITDA figure still showed a healthy growth of a 30 per cent. This hid the fact that even though the sales had grown at 40 per cent, the expenses had grown at an even faster rate of 60 per cent. However, this increase in the total expenses gets hidden by the robust EBITDA figure.

13. Bharti Airtel Limited

2016-2017 was not a good year for Airtel given the entry of Jio into the market and the proposed Vodafone-Idea merger. This is also reflected in the financial statements of the company. Sales for the company declined by 1.1 per cent (it had been on a decelerating trend over the last several years), and the PAT declined 38.5 per cent. Although the company has not changed the reporting of its non-GAAP figures, it however started highlighting its Operating Free Cash Flows which grew 16 per cent in FY2017. There has been no similar reporting by the company in previous years.

VIII. SUMMARY, CONCLUSIONS AND LIMITATION OF THE STUDY

This study provides evidence of the use of non-GAAP measures by Indian companies. Our key findings are as follows:

1. Most of the Indian companies report non-GAAP measures in their financial statements. EBITDA is the most used non-GAAP measure for companies as well as analysts.
2. Companies appear to change non-GAAP measures i.e. introducing, removing or modifying non-GAAP measures opportunistically. We find that the changes are often associated with decline in sales or profit, decline in sales or profit growth rate, and loss in current year as opposed to profit in previous year. Non-GAAP measures are possibly used to divert attention from poor financial performance.
3. Non-GAAP measures reported by analysts usually vary from measures reported by the companies. Analysts calculate these measures based on their own understanding of the business and nature of revenue and expenses of the company. We also found that deviation between figures of company and analysts was substantial in high number of cases.

A major limitation of the study is the small sample size. In our next version we intend to work on a large sample and investigate the use of non-GAAP measures in specific sectors.

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Table 1

Non-GAAP Measures Used in Company Reports

Measure	Number	Percentage to Total
EBITDA	34	50.00
EBITDA margin	10	14.71
Operating profit	3	4.41
Economic value added	3	4.41
PBDA / PBDIT	6	8.82
EBIT	5	7.35
Other	7	10.29
Total	*68*	*100.00*

Table 2

Changes in Use of Non-GAAP Measures in Company Reports

Measure	Number	Percentage to Total
Same measures reported	157	83.96
One or more measures introduced or removed	30	16.04
Total	*187*	*100.00*

Number refers to number of firm-years.

Table 3

Reasons for Change in Reporting Non-GAAP Measures

Possible Reason	**Introducing**	**Removing**	**Change**	**Total**	**%**
Loss in current year vs. profit last year	2			2	7
Profit in current year vs. loss last year	1	1		2	7
Decrease or increase in sales or profit	4			4	13
Slowdown in sales or profit growth rate	5	2		7	23
Increase in sales or profit growth rate		1		1	3
Change in management or board				1	3
One-off event	1		1	2	7
Reason not clear	3	2	6	11	37
Total	*16*	*6*	*8*	*30*	*100*

Number refers to number of firm-years.

Table 4

Use of Non-GAAP Measures in Earnings Calls and Annual Reports

Companies using different non-GAAP measures in earnings calls and annual reports		25
Companies using same non-GAAP measures in earnings calls and annual reports		
- Used the measures inconsistently	19	
- Non-GAAP measures did not match with those in annual reports	10	29
Total		*59*

Number refers to number of firm-years.

Table 5

Signs Test for Change of Non-GAAP Measures

Firm-year	Possible Instances	Actual Instances	Proportion (%)	Sign
1	9	2	22.2	+
2	21	4	19.0	-
3	18	7	38.9	+
4	22	5	22.7	+
5	33	1	3.0	-
	103	**19**	**100.0**	

Number refers to number of firm-years.