



Study Of Impact Of Ifrs Converged Ind As 12 (Income Taxes) On The Effective Tax Rates - An Indian Evidence

Madhavan. V¹, **Dr. E. Eswara Reddy**²

¹ Chartered Accountant and a Research Scholar, School of Economics & Commerce, CMR University, Bangalore.

² Associate Professor, School of Economics and Commerce, CMR University, Bangalore.

Abstract:

This paper provides an insight into the impact of the implementation of IFRS converged Indian Accounting Standards (IND AS) in India on the Tax Expense accounted for by studying the average Effective Tax Rate (ETR) for a five-year block period before and post-implementation of IND AS. The study is on a sample list of top Indian Companies listed on the National Stock Exchange (NSE). Before the implementation of the IND AS, the Companies were required to follow the Indian GAAP – Accounting Standards. ‘IND AS 12 – Income Taxes’ uses the balance sheet approach whereas the ‘AS 22 – Accounting for Income Taxes’ followed a profit and loss account approach to determine the deferred tax. Examining the impact of the change in the GAAP is important because ‘Tax Expense’ reduces the distributable profit that is available to the shareholders and brings down the EPS. Our study finds that there is no significant impact because of the implementation of IND AS in India.

Keywords: Deferred Tax; Effective tax rate (ETR); IFRS implementation; IND AS; Temporary Differences

1. Introduction

Governments levy Income tax on the profits earned by the Corporates. Generally, profits denote the accounting profit as presented in the audited annual financial statements. These annual financial statements are prepared under the generally accepted accounting principles commonly known as GAAP established by the regulators in the jurisdiction of the Company. But taxes are calculated based on ‘taxable income’ which is derived from these accounting profits. Universally, every country’s income tax law specifies how the taxable income is to be computed for levy of tax. These legal provisions provide for adjustments to the accounting profits reflected in the financial statements under the GAAP stipulations. Some of these adjustments arise because the GAAP determined income or expense is either not considered as income or expense for tax purposes or the

same is considered in a different accounting year. Thus, for each Company for each year, we would have an “Accounting Profit” and a “Taxable Profit”.

GAAP principally requires that revenue items follow the accrual principle. But the income tax calculated based on a computed (derived) taxable profit rather than the accounting profits, results in an tax outgo that is not having a consistent relationship with the accounting profit. This inconsistency may result in inconsistent provisions for tax liability. Therefore, accounting for the tax provision for the year if calculated under the income tax laws would hinder the fundamental principle of accrual which demands income tax expense be matched with the corresponding income.

Accounting Standard setters have been trying to achieve this matching or accrual principle through recognition of Deferred Tax Assets and Deferred Tax Liabilities which is nothing but accounting for future tax consequences. ‘Tax Expense’ which is a charge against the profit is recognised by aggregating the current tax and deferred tax. Identifying the first component viz., the current tax is straightforward as it represents “the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period”. Calculating the deferred tax is complex and completely guided by the applicable GAAP principles.

GAAP in India is comprised of a set of Accounting Standards. These standards, though inspired by the international standards were set taking into consideration the applicable laws, customs, usages and business environment in India. India introduced Indian Accounting Standards (IND-AS), the IFRS converged standards for the listed entities from 2016 onwards. The erstwhile Accounting Standards (Indian GAAP), ‘AS 22 Accounting for Taxes on Income’ followed the ‘profit and loss statement’ approach to accounting for deferred taxes whereas the IND-AS 12 takes the ‘balance sheet’ approach. Under the profit and loss statement approach, the measurement of deferred tax is based on the classification of the differences between the accounting profit and the taxable profit into permanent differences and temporary differences. The balance sheet approach goes to calculate the deferred tax by identifying the temporary differences as “the difference between the carrying amount of an asset or liability in the balance sheet and its tax base.”

2. GAAP Differences

Accounting for the income tax on an accrual basis is achieved through recognition of the deferred taxes. Thus, the difference between the accounted “tax expense” and the actual “tax liability for the year” is the quantum of recognized deferred taxes.

AS 22 – Accounting for Taxes on Income requires “Tax expense for the period, comprising current tax and deferred tax, should be included in the determination of the net profit or loss for the period.” It adds that “Deferred Tax should be recognised for all the timing differences, subject to the consideration of prudence in respect of the deferred tax assets...”. The calculation of deferred tax is based on “timing differences” which are defined as “Timing differences are the differences between taxable income and accounting income for a period that originate in one period and are capable of reversal in one or more subsequent periods.”

IND AS 12- Income Taxes mandates “A deferred tax liability shall be recognised for all taxable temporary differences, except...” Thus IND AS 12 computes the deferred tax based on temporary differences as opposed to the calculation based on timing differences under AS 22. The principles are enshrined in the definitions contained in IND AS 12.

“Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences.”

“Deferred tax assets are the amounts of income taxes recoverable in future periods in respect of (a) deductible temporary differences; (b) the carry forward of unused tax losses; and (c) the carry forward of unused tax credits.”

“Temporary differences are differences between the carrying amount of an asset or liability in the balance sheet and its tax base.” It also adds “Temporary differences may be either: (a) taxable temporary differences, which are temporary differences that will result in taxable amounts in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled; or (b) deductible temporary differences, which are temporary differences that will result in amounts that are deductible in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled.”

Thus, a concept called “tax base” is introduced to indicate the existence of temporary differences. The standard states “The tax base of an asset or liability is the amount attributed to that asset or liability for tax purposes.”

As per IND AS 12. Temporary differences mainly arise “when income or expense is included in accounting profit in one period but is included in taxable profit in a different period”. Examples of this include different amounts (rates) of depreciation charged to compute taxable profit and accounting profit, development costs capitalised for accounting purposes and amortized whereas the same is charged fully for tax computation, certain types of expenses like long-term employee benefits and taxes allowed for income tax on payment basis and not on the accrual basis.

The adoption of IFRS converged IND AS standards to replace the existing GAAP, i.e., accounting standards, results in a shift in the measurement of deferred taxes from timing difference to temporary difference. It is intriguing to understand if there is an impact of migrating from the Indian GAAP to the Indian Accounting Standards, especially on the aspect of accounting for income taxes.

3. Literature Review and Hypothesis Development

Expansionism of the accounting standards of the International Accounting Standards Board which are popularly referred to as the International Financial Reporting Standards (IFRS) has seen great momentum in the past decades. Jurisdiction after jurisdiction has been migrating to the IFRS standards, more so for the public/ listed entities. There have been several studies to understand the impact of the implementation of IFRS in various countries, either in general or due to the variation in the accounting treatment adopted by the IFRS over a country’s own generally accepted accounting principles (GAAP).

There were studies on the impact of migration to IFRS on the effective tax rates (ETR) of companies. Jirásková, Simona; Molín, Jan (2013) while studying the Impact of the IFRS Adoption for Tax Purposes in the Czech Tax Collection observed that the financial institutions pull the average effective tax rate of the whole sample up – their average ETR is either at the level of the nominal tax rate or above, while the average ETR of manufacturing companies or firms providing nonfinancial services was always below the nominal tax rate.

Costel Istrate (2014) studied the Impact of IFRS on the accounting numbers of Romanian listed companies and could partially confirm that there was an increase in equity numbers under IFRS but refuted the hypothesis that there is an increase in net income. The Impact of IFRS Adopter on Effective Tax Rates in Korea through an analysis of Consolidated Financial Statements was carried out by Jeong Ho Kim, Jeong Kyo Kim (2014). They found that a majority of adopters of IFRS have decreased effective tax rates as compared to K-GAAP and have effectively experienced a decrease in tax expense as compared to K-GAAP.

Clênia de Oliveira Pires, Roberto Frota Decourt (2015) in their attempt to measure the impacts of the final phase of mandatory convergence to IFRS on net income, equity, and total assets of Brazilian public companies observed that IFRS led to significant increases in both net incomes and the shareholders' equity of the companies analysed: a mean increase of about 21% in earnings and about 11% in equity, as well as generating an increase, though somewhat less significant, about 7%, the total assets.

A similar study was conducted by Virgil Nbellah Abedana, Kwame B. Omane-Antwi, and Alexander Owiredu (2016) in Ghana. The paired sample t-test of GNAS and IFRS reported tax amounts of corporate tax elements of current tax assets, deferred tax assets, current tax liabilities and deferred tax liabilities showed no differences between IFRS and GNAS computed amounts. They suggested, "A further and more in-depth longitudinal study could be done to study the trend of tax burdens as well as the pattern of effective tax rates of listed companies since the adoption of IFRS/IAS in Ghana since this study provided mixed results of some increasing, decreasing or staying stagnant".

Kiryanto Winarto (2017) performed a case study in Case Study in Indonesia to analyze the behavior of tax avoidance before and after the application of IFRS amongst manufacturing companies listed on the Indonesia Stock Exchange. He concludes that there are differences in tax avoidance before and after the International Financial Reporting Standards (IFRS). Tax avoidance is proxied by ETR Cash, Current GAAP ETR and ETR showed that after the IFRS tax avoidance behaviour is increasing. Belz T et. El (2017) looked into the aspects of Research & Development intensity impacting the Effective Tax Rates, especially in the cases of multinationals. Money spent on R&D can be treated in two ways (1) charging off as expenses and (2) capitalisation. Depending on the tax laws, the treatment may vary between the tax accounts and the financial accounts. They add to the available evidence that firms use IP for profit shifting to bring down the overall tax burden. Dyreng SD & Others (2017) analysed the systematic changes in the Effective Tax Rates of corporates for a period of 25 years to understand the declining trend. The study identifies that the decline in the ETR is not just for multinational

companies but for domestic firms also. The decline in the ETR is not necessarily attributed to the declining foreign statutory tax rates or a change in the firm characteristics.

Yinka MS & (2018) made an interesting study about what determines the Effective Tax Rate of (non-financial) firms listed on the Nigerian Stock Exchange. They found a positive relationship between firm size and ETR. Their study suggested that leverage and capital intensity resulted in lower tax burden whereas high inventory intensity resulted in higher ETR.

Drake KD & Others(2020) analysed the reconciliations provided as part of GAAP disclosure between the Effective Tax Rate and the Statutory Tax Rate and focused on the Valuation Allowances to compare tax avoidance across firms. They observed that the declining trend of firm ETRs does not result from intentions of tax planning but the changes in the firms' economics.

These studies inspired us to look at the case in India. There aren't any studies focused on understanding the impact of IFRS on the accounting for Taxation. Hence, we decided to investigate the influence of the IFRS-converged "IND AS 12 – Income Taxes" on the Effective Tax Rates in India.

4. Materials & Methods

The study is based on the specific elements contained in the audited annual financial statements of Corporates. Since the objective is to study the impact of the implementation of IND AS on the effective tax rate of the Companies, the study is only on Indian Corporates. India has two major stock exchanges viz., the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). Between these two, the total number of companies listed is about 6000. Phase I and II of the phase-wise convergence to IND AS from current accounting standards covered listed entities (and other entities with a net worth of over Rs.250 Cr.) other than Banks, NBFCs, and Insurance companies. Since the financial statements of the listed companies are in the public domain, the sample is out of the population of corporates listed with BSE and NSE.

We decided to study the phenomenon on a sample. To understand the phenomenon from different dimensions, we thought of a little broad-based selection. NIFTY 200 includes all companies forming part of NIFTY 100 representing the top 100 companies based on full market capitalisation and 100 Midcap companies. NIFTY 200 which is a diversified stock index representing major sectors of the economy.

For these 200 companies, financial information relevant to the study has been extracted for a period of 10 years from the financial year 2011-12 to 2020-21 using the Capitaline database. These companies belong to a variety of industry classifications such as Automobile & Auto Ancillary, Cement & Cement Products, Consumer Goods, Information Technology, Metals, Oil & Gas, Pharma and Power.

Financial statements for the first five years between 2011-12 to 2015-16 were under the Indian GAAP and information for the next five years between 2016-17 to 2020-210 were under Indian Accounting Standards IND-AS.

Term I – Indian GAAP [2011-12 to 2015-16]

Term II – Ind AS [2016-17 to 2020-21]

Average Effective Tax Rate (ETR) Measurement: According to IND AS 12 it is “The average effective tax rate is the tax expense (income) divided by the accounting profit.”

$ETR = \text{Tax Expense} / \text{Profit Before Tax}$

The average of the ETR of each company for Term I is calculated and compared with the average of the ETR of Term II. The corporate income tax rates which include the basic tax rate, surcharge and cess. Over the 10 years under study, the basic rate remained almost constant with minor variations in the surcharge and cess. For the purposes of this study, it is assumed that the applicable tax rate, as per the income tax law is constant.

The overall goal of this study is to look at the effects of India's transition to IFRS on the effective tax rate on corporate income.

From the above goals, the following hypothesis is set:

H₀: There is no change in the average ETR of the Companies upon migrating to IND-AS

5. Results

Of the 200 companies, 45 companies fall under the Financial Services sector for which the implementation of the IND AS was deferred. Of the rest, data for 12 companies were not available for all 10 years and in respect of another 18 companies, data were extreme outliers. To maintain consistency, these companies are not considered for the study. This leaves us with 125 companies each with 10 firm years – 5 each for the GAAP period and IND AS period. ETR was calculated for each firm-year and then the Average ETR was arrived at in respect of each company for the GAAP period (Term I) and IND AS period (Term II) separately.

The **Average ETR for the GAAP** period had the following features:

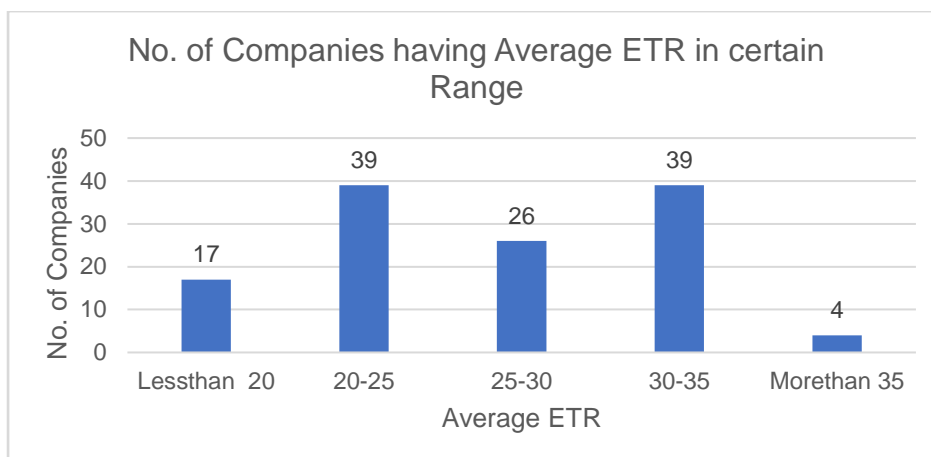
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average GAAP ETR	125	10.36	47.04	26.4150	6.14221
Valid N (listwise)	125				

The average Statutory Tax Rate (STR) during the GAAP Period was about 34.36%. Only eight companies had ETR more than the STR. The rest 117 companies had ETR less than the STR.

Interestingly, 39 companies had their ETR in the range of 20 to 25 and an equivalent number of companies had ETR in the range of 30 to 35. Only 4 companies had ETR over 35 and about 17 companies had ETR below 20.

Figure 1: Term I- GAAP Period – Spread of Average ETR of Companies



The **Average ETR for the IND AS** period had the following features:

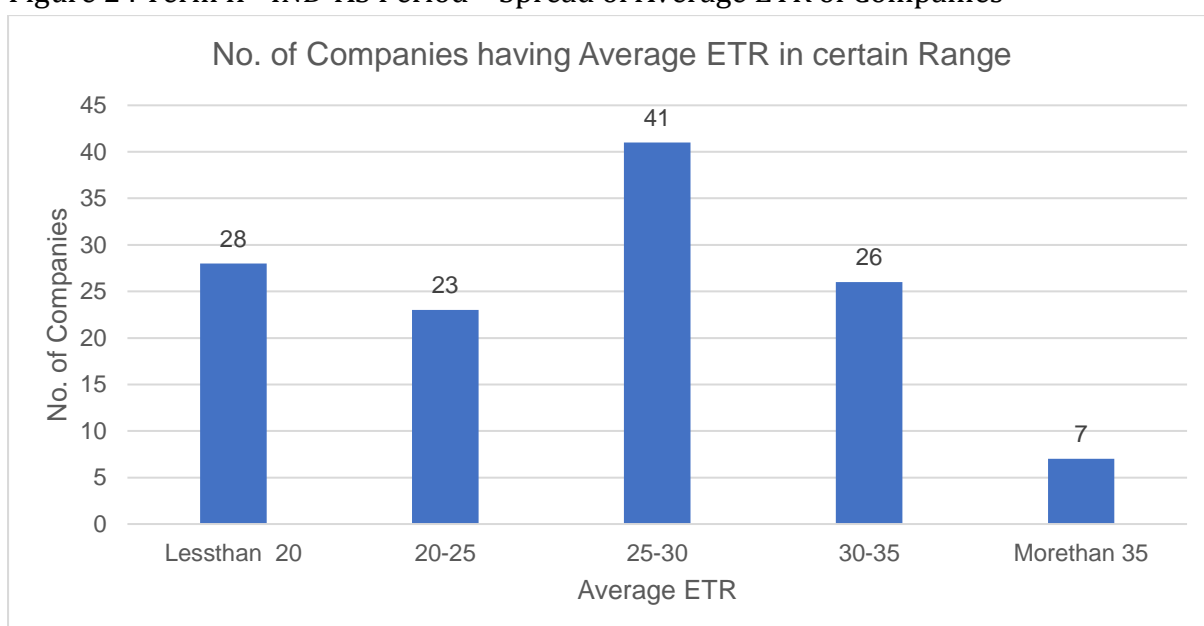
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average IND AS ETR	125	10.24	81.33	26.4007	8.64508
Valid N (listwise)	125				

The Statutory Tax Rate (STR) during the IND AS Period was about 34.94%. Only seven companies had ETR more than the STR. The rest 118 companies had ETR less than the STR.

41 companies had their ETR in the range of 25 to 30; 23 companies in the range of 20 to 25 and 26 companies in the range of 30 to 35. Only 7 companies had ETRs over 35 but 28 companies had ETRs below 20.

Figure 2 : Term II - IND-AS Period – Spread of Average ETR of Companies



6. Discussion

For each company, the average ETR is computed for a period of five years before the introduction of the IND AS standards (GAAP period) and after the introduction of the IND AS. The below table shows whether the rate increased or decreased upon the introduction of the IND AS.

Table 6.1: The number of cases in the Average ETR increased upon the introduction of IND AS

Average ETR of	Frequency	Percent	Valid Percent	Cumulative Percent
GAAP is more than INDAS	68	54.4	54.4	54.4
IND AS is more than GAAP	57	45.6	45.6	100.0
Total	125	100.0	100.0	

From the above table, it is observed that only in 57 out of 125 cases (45.6%) did the Average ETR result in an increase from that of the GAAP period after the introduction of IND AS.

Table 6.2: Table showing the shift in Average ETR after the introduction of IND AS
Number of Companies

GAAP ETR Grouped	IND AS ETR Grouped					Total
	Less than 20	Between 20 and 25	Between 25 and 30	Between 30 and 35	Over 35	
Less than 20	5	4	3	4	1	17
Between 20 and 25	16	9	9	3	2	39
Between 25 and 30	3	7	13	3	1	27
Between 30 and 35	4	2	16	13	3	38
Over 35	0	1	0	3	0	4
Total	28	23	41	26	7	125

The results of the behaviour of the Average ETR after the introduction of IND AS standards are very interesting. Only in 40 cases (marked in the table with Red fonts), did the Average ETR remain in the same slab after the introduction of IND AS. In the remaining 85 cases, there has been a change. There is no clear pattern of the impact as cases are observed to spread in all categories of slabs.

In the case of 17 companies that had 'less than 20' Average ETR, only 5 companies remained in the same slab but 4 companies shifted to the next slab of 'Between 20 and 25', 3 companies moved to 'Between 25 and 30', another 4 companies moved to 'Between 30 and 35' and the remaining one company shifted to 'Over 35' slab.

In the case of the 39 companies in the 'Between 20 and 25' group, the Average ETR of 16 companies moved one slab down to 'Less than 20' whereas 9 companies moved to the

next higher slab of 'Between 25 and 30'. 3 cases moved to 'Between 30 and 35' and 2 cases moved to 'Over 35'.

In the case of the 27 companies in the slab of 'Between 25 and 30', the Average ETR of 3 cases fell to the 'Less than 20' category and 7 cases fell to the immediate lower slab of 'Between 20 and 25'. 3 cases moved upwards to the 'Between 30 and 35' slab 1 case moved to the last upper category of the 'Over 35' slab.

There are 38 companies in the 'Between 30 and 35' category and of which only 3 cases moved up to the 'Over 35' slab after the introduction of the IND AS. The rest of the cases resulted in a reduction of the average ETR. 4 cases moved to 'less than 20', 2 cases moved to 'Between 20 and 25' and 16 cases moved to the immediate lower slab of 'Between 25 and 30'.

Finally, the 4 companies in the 'Over 35' category observed a shift in all the cases with three of them moving into the immediate lower slab of 'Between 30 and 35' and one case falling into the 'Between 20 and 25' category.

Table 6.3: Table showing the results of the Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.210 ^a	16	.002
Likelihood Ratio	39.083	16	.001
Linear-by-Linear Association	13.461	1	.000
N of Valid Cases	125		

a. 13 cells (52%) have an expected count of less than 5. The minimum expected count is .22

The Chi-Square statistic is 37.210 and the p-value is 0.002 which is significant. In this case, the p-value is smaller than 0.05, which indicates that the two variables are independent of each other. The data suggests that the variables 'GAAP ETR grouped' and 'IND AS ETR grouped' are associated with each other.

The sample data of the 125 companies in respect of Average ETR for the GAAP Period and the IND AS Periods were tested for normality.

Table 6.3: Results of Tests of Normality of Data

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Average GAAP ETR	.068	125	.200*	.982	125	.090
Average IND AS ETR	.149	125	.000	.823	125	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Though the Sig. value of the Shapiro-Wilk Test is greater than 0.05 in the case of 'Average GAAP ETR' meaning that the data is normal, the Sig. value is below 0.05 in the case of Average IND AS ETR indicating that the data significantly deviate from a normal distribution. Because one of the data is not normally distributed, it is decided to test the hypothesis using a non-parametric test.

H₀: There is no change in the average ETR of the Companies upon migrating to IND-AS

H₁: There is a change in the average ETR of the Companies upon migrating to IND-AS

Wilcoxon Signed Rank Test is used to test the hypothesis and the results are as follows:

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Average GAAP ETR and Average IND AS ETR equals 0.	Related-Samples Wilcoxon Signed Rank Test	.195	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The Sig. obtained is 0.195 which is higher than 0.05 indicating that the null hypothesis holds good. There is no change in the average ETR of the Companies upon migrating to IND-AS

7. Conclusion

Effective Tax Rate (ETR) indicates the tax expense of a company for the year as a percentage of pre-tax profit. Depending on several factors such as permanent differences (exempted income, ineligible expense, etc.) or temporary differences (admissible depreciation at rates specified in the income tax laws, allowability of certain expenses on payment basis, etc.) the ETR could be more or less. ETR is severely impacted by the principles used for accounting for deferred taxes.

India moved from GAAP to IND AS in 2016 in the case of companies having net worth of over Rs.250 Cr. and the 'Accounting Standards 21 – Accounting for Taxes on Income' was replaced by 'Indian Accounting Standard 12 – Income Taxes'. The objective of our research was to identify if there is any impact on the ETR upon the introduction of IND AS.

Based on the research, we conclude that there is no impact on the ETR of Companies upon migrating to IND-AS.

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