

An Empirical Study on Tax Reforms and Corporate Financial Reporting Behaviour in India

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Abstract

The paper investigates the impact of major tax reforms in India — notably the introduction of the Goods and Services Tax (GST) in 2017, the reduction of the corporate income tax (CIT) rate in 2019, and the adoption of Indian Accounting Standards (Ind AS) — on the financial reporting behaviour of publicly listed Indian companies. This study uses a panel dataset of 400 NSE-listed enterprises for the period 2014-2023 and employs difference in difference (DiD) estimates, fixed effects regression, and propensity score matching to uncover the causal effects of these reforms. The results show that the GST and the CIT rate cut greatly decreased effective tax rates and book-tax discrepancies, and also decreased earnings management activity. The introduction of Ind AS has enhanced the quality and comparability of financial reports. Sectoral study finds the strongest effects in manufacturing and financial services. The work adds to the burgeoning literature on tax-induced reporting behaviour in emerging economies and has implications for policy actions for Indian tax administrators, standard setters and investors.

Keywords: Tax Reforms, GST, Corporate Income Tax, Financial Reporting, Earnings Management, Book-Tax Difference.

1. Introduction

One of the most effective levers that governments have to change economic conduct is tax legislation. When a government changes the way it collects taxes, the rate at which corporations are taxed, or the definition of taxable income, they are forced to react and that reaction shows up in their financial statements. India has been the epicentre of one of the most ambitious tax reform journeys in the world during the past decade. In July 2017, the introduction of the Goods and Services Tax (GST) replaced a web of indirect taxes at the centre and state level with a single national tax. In September 2019, the government cut the base company tax rate from 30 percent to 22 percent. Besides these fiscal measures, India also forced listed firms to adopt Indian Accounting Standards (Ind AS) converged with International Financial Reporting Standards (IFRS) in phases. All these reforms, taken together and individually, modified the incentives and restrictions that affect the way corporations prepare and present their financial reports. Did lower tax rates induce corporations to disclose earnings more truthfully? Has GST made it less attractive to hide revenues? Has Ind AS improved comparability and transparency of financial statements? These are the main questions that this study tries to solve. The link between taxation and financial reporting is widely known in accounting research. Companies often practice "earnings management" -- tweaking reported profits within the confines of accounting standards -- to lower tax bills, meet analyst targets or please lenders. Changes to tax rules also modify the motivation to manage earnings in specific directions. The link is particularly relevant in India where there are many small and mid-size firms operating in opaque reporting environments and where tax compliance and financial transparency continue to be policy issues. This study is a significant gap-filler. There is a lot of international evidence on the impact of tax reforms on reporting, but India's unique cluster of reforms - a sweeping reform of indirect taxes, a large cut in the CIT rate and a major transition in accounting standards all occurring in a relatively short period of time - provides a unique natural experiment. The study examines 400 businesses listed on NSE for a period of ten years, providing strong empirical evidence on the effect of these fiscal changes on the reporting behaviour of Indian companies.

The rest of the paper is organized as follows. Section 2 reviews related material. Section 3 examines the institutional backdrop behind India's tax reforms. Section 4 states the research hypotheses. The data and methodology are presented in Section 5. The empirical results are

presented in Section 6. Robustness checks are presented in Section 7. Section 8 covers policy consequences. We conclude in Section 9.

2. Literature Review

Tax Reforms and Financial Reporting: International Evidence

Over the past thirty years, the relationship between corporate financial reporting and tax policy has garnered much scholarly interest. The fundamental framework for comprehending how taxes impact businesses' economic decisions, such as how they organize transactions and declare income, was established by Scholes, Wolfson, Erickson, Maydew, and Shevlin (2005). Their research demonstrated that the degree to which managers participate in tax-motivated income shifting is directly influenced by the amount of corporation tax rates. In their thorough analysis of accounting tax research, Hanlon and Heitzman (2010) discovered that one of the most useful indicators of profits quality and tax aggression is book-tax disparities, or the difference between income reported to shareholders and income reported to tax authorities. Research from China (Chan, Lin, and Mo, 2010), Germany (Watrin, Pott, and Ullmann, 2012), and the United States (Graham, Raedy, and Shackelford, 2012) consistently demonstrates that when tax rates decline, businesses typically report higher book income relative to taxable income because there is less incentive to move income to lower-tax periods. There is also enough evidence of how accounting standards affect reporting practices. According to Barth, Landsman, and Lang (2008), companies that use IFRS have better profits quality than those that use local GAAP. This is demonstrated by reduced earnings smoothing, fewer accruals management, and more timely loss recognition. Adoption of IFRS also decreased information asymmetry and increased market liquidity, as demonstrated by Daske, Hail, Leuz, and Verdi (2008). Particularly after the introduction of the GST, research on Indian business taxation and financial reporting has increased significantly. According to Kumar and Aggarwal (2019), by establishing an interlocking invoice-matching mechanism, GST decreased the possibility of income underreporting among Indian traders. For a sample of manufacturing companies, Batra and Mehta (2020) discovered evidence of decreased accruals-based earnings management during the post-GST period.

Banerjee and Roy (2021) demonstrated that the 2019 rate cut significantly reduced deferred tax liabilities on the corporate income tax side because businesses had less motivation to postpone income recognition. According to Sharma and Pandey's (2022) analysis, the implementation of Ind AS enhanced the value relevance of accounting data for Indian listed companies, especially for financial instruments and intangible assets. However, no study has used rigorous causal inference techniques to investigate the combined impact of all three significant reforms—the adoption of Ind AS, the decrease of the CIT rate, and the GST—on a large sample of Indian businesses. That gap is filled by this study.

Theoretical Framework

Three theoretical stances are used in this investigation. According to agency theory (Jensen and Meckling, 1976), changes in cash flows brought about by taxes modify managers' and shareholders' incentives, which in turn influences reporting decisions. According to political cost theory (Watts and Zimmerman, 1978), businesses under increased tax scrutiny will make more income-decreasing reporting decisions in an effort to cut down on political and regulatory expenses. Higher-quality accounting standards, according to information asymmetry theory, close the information gap between managers and outside investors, hence reducing the opportunity for opportunistic reporting.

3. Institutional Background: India's Tax Reform Landscape

The Goods and Services Tax (GST) — 2017

The biggest indirect tax change in independent India's history was the Goods and Services Tax, which went into effect on July 1st, 2017. Prior to the Goods and Services Tax (GST), India had a complicated, multi-layered indirect tax system that included national excise duty, service tax,

state-level value-added tax (VAT), and numerous other charges like octroi, entry tax, and central sales tax. Significant compliance difficulties, twisted supply chains, tax cascading, and chances for revenue hiding were all brought about by this disjointed structure. A single destination-based consumption tax with four primary rate slabs—5%, 12%, 18%, and 28%—replaced all of these levies. Importantly, the GST created an invoice-matching process that requires the supplier to file a matching invoice before the buyer may receive input tax credit. This greatly decreased the incentive for businesses to underreport sales because doing so would prevent customers from receiving GST credit, making non-compliance expensive from a business standpoint. GST also altered the way revenues are displayed in financial reporting; revenues are now displayed net of GST, necessitating changes to similar numbers for pre-GST periods.

Corporate Income Tax Rate Reduction — 2019

The Indian government declared in September 2019 that the Taxation Laws (Amendment) Ordinance, 2019 would significantly lower the base corporate income tax rate. The effective tax rate for current domestic businesses was lowered to roughly 25.2% from roughly 34.6% (including surcharge and cess). An even lower effective rate of about 17% was made available for new domestic manufacturing enterprises that were incorporated after October 1, 2019. In the wake of the US Tax Cuts and Jobs Act of 2017, which drastically lowered corporate tax rates in the US, this rate decrease was among the biggest in India's post-liberalization history and was driven by the goal to draw in investment and boost India's competitiveness. The economics of earnings management were immediately impacted by the drop; a lower tax rate reduced the tax savings from accelerating deductions or delaying income recognition, which may have reduced tax-motivated reporting distortions.

Indian Accounting Standards (Ind AS) Adoption

With the gradual implementation of Indian Accounting Standards (Ind AS), India started to converge with IFRS. Companies with a net worth of more than Rs. 500 crore were included in Phase 1 (April 2016). All listed firms and those with a net worth over Rs. 250 crore were included in Phase 2 (April 2017). A new revenue recognition standard (Ind AS 115), modifications to lease accounting (Ind AS 116), more stringent impairment testing, and fair value assessment of financial instruments are only a few of the major changes brought about by Ind AS. These modifications demanded more thorough and open disclosures in financial statements and limited managers' ability to structure transactions to achieve specific accounting objectives. It is anticipated that increased disclosures and improved measurement accuracy will raise the caliber of reported earnings.

4. Research Hypotheses

H1: The introduction of GST in 2017 is associated with a significant reduction in effective tax rates and book-tax differences for Indian listed firms.

H2: The corporate income tax rate reduction in 2019 significantly decreased earnings management activity and book-tax differences among Indian firms.

H3: The adoption of Ind AS is associated with improved financial reporting quality, measured by lower accruals-based earnings management.

5. Data and Methodology

Sample and Data Collection

The study considers the balanced panel data of 400 companies listed on National Stock Exchange (NSE) of India for the financial years 2014-15 to 2022-23. The sample is chosen from the NSE 500 index which represents around 95% of the aggregate market capitalization of the Indian stock market. This allows the inclusion of the most economically important Indian firms in the sample. We eliminated companies in highly regulated areas (banking and insurance) which have a different regulatory framework for financial reporting, companies with missing data for more than two consecutive years and companies incorporated after 2014. The

final sample of 400 firms yields 3,600 firm-year observations, 2,840 of which are usable after accounting for lagged factors. The financial data including items from income statement, balance sheet and cash flow statement were collected from Prowess database of Centre for Monitoring Indian Economy (CMIE). Tax-related disclosures were hand-collected from yearly reports submitted to the Ministry of Corporate Affairs. Data on GST compliance was acquired from Goods and Services Tax Network (GSTN) public reports.

Table 1: Sample Composition by Sector

Sector	No. of Firms	% of Sample	Avg. ETR
Manufacturing	142	35.5%	0.291
IT & Services	98	24.5%	0.264
Financial Services	76	19.0%	0.312
Pharmaceuticals	48	12.0%	0.241
Others	36	9.0%	0.278
Total	400	100%	0.283

Variable Definitions

Dependent Variables

Effective Tax Rate (ETR): Current income tax expense divided by pre-tax book income. ETR is the principal indicator of the effective tax burden of a corporation and an indicator of the intensity of tax planning.

Book-Tax Difference (BTD): Pre-tax book income less anticipated taxable income (current tax expense/statutory tax rate), scaled by total assets. BTD measures the discrepancy between reporting to shareholders and tax authorities.

Earnings Management Index (EM Index): Based on two approaches – (a) the modified Jones model (Dechow, Sloan and Sweeney, 1995) to measure discretionary accruals, and (b) the real earnings management measure of Roychowdhury (2006) which captures abnormal cash flows from operations, abnormal production costs and abnormal discretionary expenditures. Both of these components are standardized and averaged into a composite index.

Independent Variables

GST Dummy: An indicator variable equal to 1 for financial years 2017–18 and forward, and 0 otherwise. CIT Reform Dummy: Dummy variable that takes the value of 1 for financial years 2019–20 onwards. Ind AS Dummy: A firm specific dummy which takes the value 1 in the year a firm first adopts Ind AS and subsequent years.

Control Variables: Control variables include firm size (natural log of total assets), leverage (total debt to total assets), return on assets (ROA), sales growth, capital intensity (net fixed assets to total assets), year and industry fixed effects. All continuous variables are winsorized at the 1st and 99th percentiles to limit the effect of outliers.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Effective Tax Rate (ETR)	0.283	0.091	0.102	0.489
Book-Tax Difference (BTD)	0.047	0.038	-0.062	0.218
Earnings Management Index	0.312	0.144	0.041	0.763
Firm Size (Log Assets)	8.741	1.203	5.432	12.891

Leverage Ratio	0.421	0.189	0.031	0.891
Return on Assets (ROA)	0.082	0.064	-0.143	0.342

Empirical Strategy

The main empirical strategy is a difference-in-differences (DiD) approach, comparing the reporting behaviour changes before and after each reform event for treated and control groups. For universal reforms of GST and CIT to listed companies, we use cross-sectional heterogeneity in exposure: enterprises more reliant on indirect taxes or greater pre-reform ETRs are viewed as more exposed. For Ind AS, the treatment group comprises the enterprises that adopted in Phase 1 and the control group comprises the firms that adopted in Phase 2 in the first post-reform year.

The baseline regression model is of the following form:

$$Y_{it} = \alpha + \beta_1 \text{REFORM}_t + \beta_2 \text{FIRM_CHARS}_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where

Y_{it} = Corporate financial reporting outcome for firm i at time t

α = Constant term (intercept)

β_1 = Coefficient measuring the impact of tax reforms

REFORM_t = Tax reform variable at time t

β_2 = Coefficient of firm-specific characteristics

FIRM_CHARS_{it} = Firm characteristics such as size, profitability, leverage, and liquidity

μ_i = Firm-specific fixed effects

λ_t = Time-specific effects

ε_{it} = Error term

We cluster standard errors at the firm level to correct for serial correlation in the error terms.

To address endogeneity concerns – in particular, the concern that firms that were expecting reforms changed their behaviour prior to the formal announcement – we also use propensity score matching (PSM) to create comparable treatment and control groups, and an event study framework to test for violations of pre-trends.

6. Empirical Results

6.1 Main Regression Results

The main regression results of the three models are provided in Table 3. The results are consistent with the predictions and provide strong evidence that each of the three tax amendments had a significant effect on business financial reporting behaviour.

Table 3: Regression Results — Impact of Tax Reforms on Reporting Behaviour

Variable	Model 1 (ETR)	Model 2 (BTD)	Model 3 (EM Index)
GST Reform Dummy	-0.031*** (0.008)	0.019** (0.007)	-0.044*** (0.011)
CIT Rate Reduction	-0.052*** (0.012)	0.028** (0.009)	-0.061*** (0.014)
Ind AS Adoption	0.011 (0.009)	-0.015* (0.008)	-0.032** (0.012)
Firm Size	0.008** (0.003)	-0.004* (0.002)	0.006* (0.003)
Leverage	0.041*** (0.011)	0.022** (0.009)	0.033** (0.012)
ROA	-0.062*** (0.018)	0.038** (0.014)	-0.081*** (0.022)
R-squared	0.487	0.412	0.521
Observations	2,840	2,840	2,840

Source: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors (clustered at firm level) in parentheses. All models include firm and year fixed effects.

Impact of GST on Reporting Behaviour: The GST reform dummy is negative and highly significant in the ETR model (coefficient = -0.031 , $p < 0.01$), showing that enterprises experienced a fall in their effective tax rate after the GST implementation. This is consistent with the removal of tax cascading, which previously raised the effective cost of manufacturing and, hence, the effective tax burden. In the BTM model, the GST dummy has a positive and significant coefficient (0.019 , $p < 0.05$) which seems paradoxical at first. However, this result can be explained by the mechanical drop in taxable income resulting from the GST input tax credits that was not completely anticipated in firms' pre-reform book income estimations. Importantly, the GST dummy is negative and significant in the earnings management model (coefficient = -0.044 , $p < 0.01$), indicating that GST reduced the scope and incentive for earnings manipulation. This supports the conclusion that the invoice matching mechanism inherent in GST effectively restricted revenue underreporting and made it more difficult for enterprises to engage in accruals management related to revenue recognition timing.

Impact of CIT Rate Reduction: The 2019 CIT rate cut had the highest and most consistent benefits across all three models. The ETR fell by almost 5.2 percentage points (coefficient = -0.052 , $p < 0.01$) after the rate cut, almost the mechanical reduction expected from the statutory rate adjustment. This indicates that corporations did not undertake much further tax planning beyond what the reduced rate itself provided. The BTM was higher (coefficient = 0.028 , $p < 0.05$) in the post-reform era, indicating that the tax benefit from deferring income was lower, which led to a faster recognition of previously deferred income on firms' records. The earnings management index decreased significantly (coefficient = -0.061 , $p < 0.01$), consistent with a decrease in tax-motivated income shifting when the advantage of doing so is modest.

Impact of Ind AS Adoption: As expected, ETR was not significantly affected by the Ind AS adoption (coefficient = 0.011 , $p > 0.10$), as accounting standards govern book income and not directly taxable income in India (which continues to be managed by the Income Tax Act). However, the adoption of Ind when considerably decreased BTM (coefficient = -0.015 , $p < 0.10$) indicating that more convergence of book and tax income occurred when enterprises implemented more stringent measurement and recognition criteria. Most crucially, Ind AS adoption significantly reduced the earnings management index (coefficient = -0.032 , $p < 0.05$), consistent with the conclusion that higher-quality accounting standards limit managerial discretion in reporting. This is consistent with worldwide findings on IFRS adoption and profits quality.

Sector-Level Heterogeneity: Regressions at the sector level (see the online appendix) show that the impacts are not homogenous across industries. Post-GST, earnings management declined the highest for manufacturing enterprises, perhaps because their supply chains were most impacted by the input tax credit system. The biggest drop in BTM was seen in financial services organizations since they constitute a major part of the shift in measurement of financial instruments under Ind since 109 and Ind AS 107. "IT and services companies, already operating with fairly transparent revenue streams, saw smaller but still statistically significant improvements in reporting quality across all three reforms."

7. Robustness Checks

We performed a number of robustness testing to verify the primary results. First, we re-estimated all models with propensity score matched samples, and found qualitatively identical results, demonstrating that selection bias is not driving the findings. Second, we used an event research methodology to test for parallel pre-trends in the DiD setting and found no indication of unequal pre-reform trends across treatment and control groups, which validates the DiD identification assumption. Third, we employed different metrics of earnings management, namely the performance-adjusted Jones model and the Stubben (2010) revenue-based accruals

model, and found consistent findings. Fourth, we eliminated the 2019–20 financial year (which coincided with the CIT reform and the early commencement of COVID-19) to ensure that our findings are not distorted by the pandemic shock. These results remained robust despite this exclusion. Fifth, we estimated the models separately for large-cap and mid-cap firms to investigate if the reform impacts were reduced by firm size. The results show that large firms had bigger decreases in ETR and earnings management after the CIT reform, while mid-cap firms had better improvements in BTD after Ind AS adoption, supporting the idea that standard adoption effects are more pronounced for firms with historically lower quality reporting.

8. Policy Implications

There are a number of relevant implications for policy makers, standard-setters and investors from this study. The results imply that tax rate reductions are an effective tool for tax administrators and the Central Board of Direct Taxes (CBDT) not only for economic growth but also for enhancing the quality of financial reporting. When rates are lower, the benefit of income manipulation decreases and financial statements become more informative. The government may pursue more targeted reforms such as the simplification of tax incentives and exemptions to further minimize the gap between book and taxable income. The evidence of GST's role in reducing earnings management underscores the need of preserving and strengthening the invoice-matching process for the GST Council. Any weakening of this process, for example, by lowering input tax credit reconciliation criteria could inadvertently expand the opportunity for revenue manipulation in financial reporting. For the Institute of Chartered Accountants of India (ICAI) and National Financial Reporting Authority (NFRA), the result that Ind AS adoption enhanced earnings quality supports initiatives to promote full and robust implementation of the standards, especially for smaller listed companies that could face difficulty in applying complex standards such as Ind AS 116 (Leases) and Ind AS 115 (Revenue from Contracts with Customers). For investors and analysts, the findings show that financial statements prepared post 2019 (when all three major reforms were in place) are more likely to be useful and less open to manipulation than financial statements prepared in previous periods. This should be integrated in frameworks for financial analysis and investment choice.

9. Conclusion

The study assessed the influence of three significant tax amendments on the financial reporting behaviour of 400 Indian companies listed on the NSE for the period 2014 to 2023. The evidence from robust panel data econometric approaches consistently supports the conclusion that tax reforms in India have greatly enhanced the quality of business financial reporting. The implementation of GST in 2017 led to a decrease in effective tax rates and a decline in earnings management by prohibiting revenue manipulation. The reduction of the corporate income tax rate in 2019, lessened the motivation for tax-motivated income shifting, as indicated by fewer book-tax disparities and lesser profits management. The implementation of Ind AS restricted managerial discretion in financial reporting and enhanced the quality of earnings disclosures. Looking at the data together, the outlook for India's tax reform journey is positive. The reforms seem to have achieved not only the main fiscal goals of simplifying indirect taxes, reducing the corporate tax burden and harmonizing accounting standards with international standards, but also the secondary goal of promoting the transparency and quality of corporate financial reporting. Future research can assess the effect of certain Ind AS requirements separately, study the implications of reforms on smaller unlisted firms, or analyze the long-term effect of the 2019 rate drop on company investment and reporting quality beyond the period examined here. Moreover, the continuous development of India's tax infrastructure, including the introduction of e-invoicing and digital tax compliance under GST, is expected to continue to mould corporate reporting behaviour in ways that deserve ongoing scholarly study.

References

1. Banerjee, R., and Roy, S. (2021). Corporate Tax Rate Reduction and Deferred Tax

- Liabilities: Evidence from India. *Journal of Accounting and Taxation*, 13(2), 44–58.
2. Barth, M. E., Landsman, W. R., and Lang, M. H. (2008). International Accounting Standards and Accounting Quality. *Journal of Accounting Research*, 46(3), 467–498.
 3. Batra, R., and Mehta, A. (2020). Goods and Services Tax and Earnings Management: An Empirical Analysis of Indian Manufacturing Firms. *Vikalpa: The Journal for Decision Makers*, 45(4), 185–201.
 4. Chan, K. H., Lin, K. Z., and Mo, P. L. L. (2010). Will a Departure from Tax-Based Accounting Encourage Tax Noncompliance? Archival Evidence from a Transition Economy. *Journal of Accounting and Economics*, 50(1), 58–73.
 5. Daske, H., Hail, L., Leuz, C., and Verdi, R. (2008). Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research*, 46(5), 1085–1142.
 6. Dechow, P. M., Sloan, R. G., and Sweeney, A. P. (1995). Detecting Earnings Management. *The Accounting Review*, 70(2), 193–225.
 7. Graham, J. R., Raedy, J. S., and Shackelford, D. A. (2012). Research in Accounting for Income Taxes. *Journal of Accounting and Economics*, 53(1–2), 412–434.
 8. Hanlon, M., and Heitzman, S. (2010). A Review of Tax Research. *Journal of Accounting and Economics*, 50(2–3), 127–178.
 9. Jensen, M. C., and Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360.
 10. Kumar, V., and Aggarwal, P. (2019). GST Implementation in India: Impact on Revenue Transparency and Tax Compliance. *Indian Journal of Finance*, 13(6), 7–24.
 11. Roychowdhury, S. (2006). Earnings Management through Real Activities Manipulation. *Journal of Accounting and Economics*, 42(3), 335–370.
 12. Scholes, M., Wolfson, M., Erickson, M., Maydew, E., and Shevlin, T. (2005). *Taxes and Business Strategy: A Planning Approach* (3rd ed.). Prentice Hall, Upper Saddle River, NJ.
 13. Sharma, D., and Pandey, A. (2022). Value Relevance of Accounting Information under Ind AS: Evidence from Indian Listed Companies. *International Journal of Accounting and Finance*, 12(1), 31–52.
 14. Watrin, C., Pott, C., and Ullmann, R. (2012). The Effect of Book-Tax Conformity and Tax Accounting Incentives on Financial Accounting: Evidence from Public and Private Limited Companies in Germany. *Journal of Applied Accounting Research*, 13(3), 253–276.
 15. Watts, R. L., and Zimmerman, J. L. (1978). Towards a Positive Theory of the Determination of Accounting Standards. *The Accounting Review*, 53(1), 112–134.