Impact of India's 2019 Corporate Tax Cut Announcement on the Stock Market

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Abstract

The paper analyzed the short-term impact of India's corporate tax cut announcement in 2019 on the Indian stock market. The paper utilized event study methodology to analyze how stocks across industries reacted to the unexpected announcement of the corporate tax cut. The paper found heterogeneity in the abnormal stock returns across industries due to the announcement. Automobile, cement, construction, consumer goods, financial services, and consumer services saw positive abnormal returns due to the announcement. In contrast, power, information technology, and the pharmaceutical industries saw negative abnormal returns. This asymmetry in the stock returns was explained based on companies' differential corporate tax rates.

Keywords : **event study, corporate tax cut, industry analysis, India, stock markets, abnormal returns**

JEL Classification Codes : G12, G14, H25

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Governments employ various tools to attract corporations to invest in their countries, such as tax cuts, investment subsidies, and favorable policies (Sarkar, 2012). In September 2019, the Government of India announced a reduction in corporate tax rates to make India more competitive and attractive viz.-a.-viz other major economies. Several governments in the world have used tax cuts to increase the competitiveness of their countries in the globalized economy (Kalaš et al., 2017). Corporate taxes are an important consideration in corporate decision-making (Graham, 2003), including determining its capital structure. Corporate taxes directly impact a company's earnings and cash flows and impact stock valuation (Dierkes & Schäfer, 2017; Miller & Modigliani, 1961). Any reduction in corporate taxes is likely to be positive for companies' earnings and vice versa. Thus, a corporate tax cut impacts companies' stock returns as well.

As a reduction in corporate tax rates is beneficial for companies in the form of higher profit in the future, it also results in the stock prices of companies listed on the stock exchange reacting to such decisions. However, the reactions of stock prices across industries may differ, depending upon the benefit flowing to companies across industries. Understanding market reactions to such an event is vital from investors' perspective as it will enable them to manage risk and return of their investment portfolio appropriately (Vijayalakshmi, 2017).

Researchers have investigated the impact of tax cuts in the U.S. on the American or global stock markets on an aggregate market level or on companies with specific characteristics (Kalcheva et al., 2020; Vianna, 2017; Wagner et al., 2018a, 2018b). Some studies have focused on the impact of U.S. tax changes on stocks in different sectors in other countries (Gaertner et al., 2020) or in specific sectors. Researchers have also investigated the impact of tax changes across countries on their stock market returns over a specific period (Wang & Macy, 2021).

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However, I did not come across any research investigating the impact of India's tax cut announcement on Indian stock markets.

This paper aims to undertake an event study around the corporate tax cut announcement by the Government of India on September 20, 2019. The paper analyzes the Indian stock market's and its constituents' short-term reaction to the tax cut announcement. The paper findings highlight how the corporate tax cut announcement led to a diverse reaction among companies' stocks across industries in India. The study's main contribution is that it helps researchers and investors better understand the impact of the tax cut announcement on the stock market.

Literature Review

Tax cuts can be a valuable tool to stimulate economic activity (Mertens & Ravn, 2019) and increase capital investment (Auerbach, 2018). Changes in tax policies can impact overall firm value and thus impact corporate policies (Doidge & Dyck, 2015). Corporate tax rates can influence companies' decision-making while evaluating locations to start operations. Other factors being similar across locations, a company will opt for a location with a lower tax incidence. To lower taxes, multinational companies shift their revenues from subsidiaries operating in high-tax countries to subsidiaries in low-tax countries with negligible operations (Bennedsen & Zeume, 2018; Williams, 2018). Thus, governments also try to increase competitiveness by decreasing their corporate tax rate and attracting foreign corporations to invest in their countries (Banociova & Tahlova, 2019).

On September 20, 2019, the Government of India announced an overhaul of corporate tax rates through the Taxation Laws (Amendment) Ordinance, 2019 to make certain amendments in the Income Tax Act, 1961 and the Finance (No. 2) Act, 2019 (Press Information Bureau, 2019). The following are the salient features of the amendment related to corporate tax :

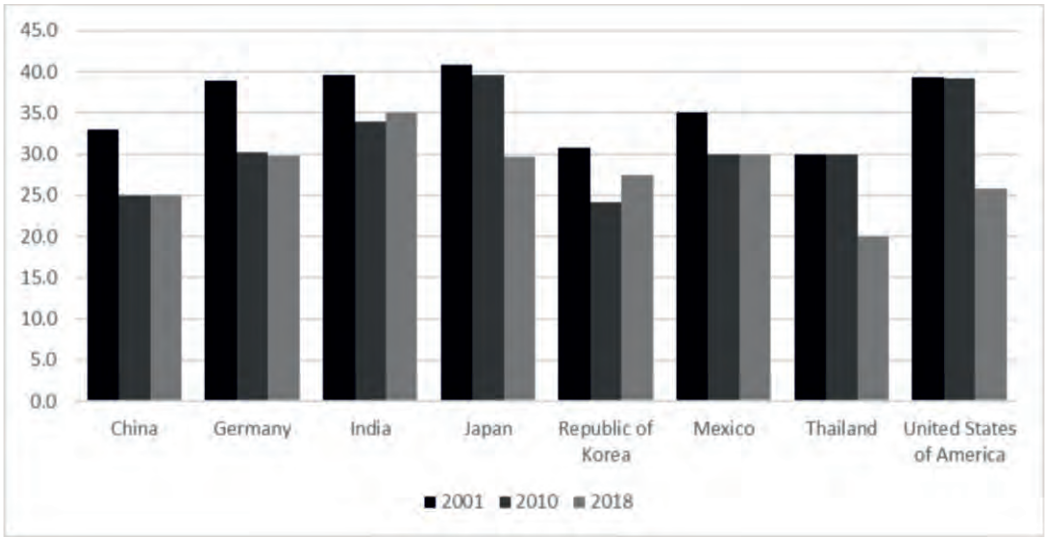
- The government gave existing companies the option of paying a lower corporate tax rate of 22% with an effective tax rate of 25.17%, inclusive of surcharge and cess. However, the companies will have to forego the various exemptions/incentives they were availing of earlier or continue using existing exemptions and pay the older corporate tax rate.

- The government announced that any new domestic company incorporated on or after October 1, 2019, making new investment in manufacturing and commencing production on or before March 31, 2023, could pay income tax at 15% with an effective tax rate of 17.01%. The government's main motive behind the corporate tax cut was attracting investment and boosting economic growth ("Corporate tax cut to help boost economy," 2019).

These tax reforms are likely to increase India's competitiveness in the global economy. (Manda et al., 2020). The trade war between the U.S. – China leading to several companies looking for alternatives also drove the timing of the tax cut announcement. Several countries have taken tax cut measures in the past to attract investment. The trend in the corporate tax rate of selected countries is shown in Figure 1. The data clearly shows that corporate tax rates in India were the highest among the major manufacturing hubs globally, thereby leading to the government announcement on tax cuts, especially after the corporate tax cuts were announced in the U.S. in 2017.

Researchers have analyzed the impact of various events on the stock market, such as corporate actions, monetary policy announcements, government budgets, fiscal announcements, black swan events, or sector-specific news, to understand investors' reactions to such events. Many investors react to such events instinctively as part of a herd without considering the impact on individual sectors or companies (Gupta & Kohli, 2021). Syed et al. (2021) analyzed the impact of the first and second COVID waves on the Indian stock and commodity markets and reported that the reaction of stock and oil prices was divergent from gold prices. Bhattacharya (2019)

Figure 1. ***Trend in Corporate Tax Rates in Select Countries***



Source : Tax Foundation (2021).

investigated the impact of negative news on the U.S. soft drinks industry. Pradhan and Kasilingam (2018) examined the reaction of S&P 500 stocks to stock split and found no difference in the event impact on stocks across industries, while Nadig (2017) observed a mixed reaction from the stocks of the public sector banks on the day of dividend announcement. Pandya (2014) analyzed the impact of the Union Budget on the Indian stock market's return and volatility.

As a change in the corporate tax rate impacts future earnings and valuation, companies' stock prices are likely to react to such a change (Graham, 2003). Corporate tax rate cuts have been a rare event among the world's major economies in the past decade. Thus, limited recent literature analyzes such tax-related events' impact on stock markets. One such event was the U.S. Tax Cuts and Jobs Act of 2017 (TJCA), in which the U.S. government reduced the corporate tax rate to a flat 21%, along with a reduction in individual income tax (Tax Policy Center, 2017). Wagner et al. (2018a) studied the impact of TJCA on stocks and found that corporate taxes impacted stock valuations, with highly taxed firms witnessing higher returns in the U.S. stock market, on the expectation of lower corporate tax, before the enactment of TCJA. Kalcheva et al. (2020) found a differential impact of TJCA on stock returns on companies with different financial leverage and growth prospects in the U.S.

Gaertner et al. (2020) studied the impact of TJCA on the different countries' stock markets and found that Indian stock markets experienced a positive return from U.S. tax reforms. However, I did not come across any research that explores market reactions to the tax-cut announcement by the Government of India. As the tax cut announcement was unanticipated (Manda et al., 2020), the paper investigates the short-term changes in stock prices in response to the announcement. The impact of new events/shocks on stock returns has been extensively studied in the literature (Bali et al., 2014; Becchetti & Ciciretti, 2011; Chang et al., 2018; Jawed et al., 2019; Liu et al., 2020; Singh & Padmakumari, 2020) using the event study methodology. This paper examines how the market reacted across different sectors, as measured by stock returns of the Nifty 100 index constituents.

Objectives of the Study

- To analyze the impact of the 2019 tax cut announcement on different industries in the Indian stock market.

- To find the reasons for any divergence in the reaction of different industries to the announcement.

Data and Methodology

The paper examines companies' stock returns in different industries which are part of the Nifty 100 Index. NIFTY 100 consists of the top 100 companies representing significant sectors of the Indian economy, accounting for 76.8% of the free-float market capitalization of the stocks listed on NSE (National Stock Exchange of India Ltd., 2021). The data for stock prices were collected from the National Stock Exchange (NSE) of India Ltd. from August 1, 2018 – December 31, 2019. The financial data for FY19 for companies were taken from the Centre for Monitoring Indian Economy (CMIE) – Prowess IQ Database. As per the classification by NSE (National Stock Exchange of India Ltd., 2021), the Nifty 100 index constituents were classified into 17 industries. However, I grouped the industries with only one company in the Nifty 100 index into the Miscellaneous industry group. Table 1 shows these companies grouped into a total of 14 industry groups.

As mentioned earlier, to understand the investor reaction to the tax cut announcement, the paper undertakes quantitative analysis using the event study methodology. The event study methodology examines abnormal returns on security due to an event/announcement to understand investors' response to the event. The abnormal return of a security is the excess return that it generates over the expected return without any event, as reflected in equation (1). The paper uses the market-adjusted model (Dyckman et al., 1984) to calculate the stock's expected returns for our event study, as shown in equation (2). The Nifty 500 index is used as the market return, R_m, in the market-adjusted model (National Stock Exchange of India Ltd., 2020).

$$AR\,(\text{Abnormal Return}) = R\,(\text{Actual Return}) - ER\,(\text{Expected Return}) \qquad (1)$$

$$ER\,(\text{Expected Return}) = \alpha + \beta * R_m \qquad (2)$$

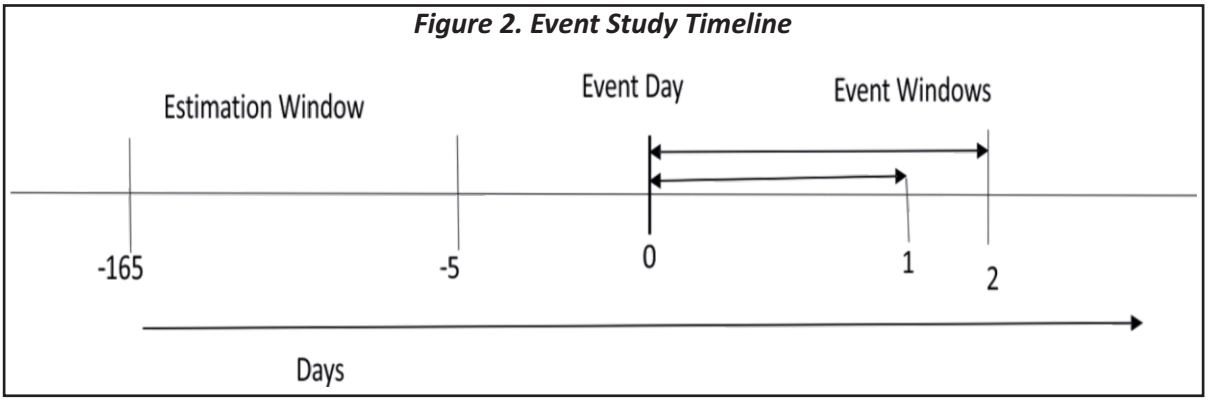
where, R_m is the market return and α, β are estimated from a market-adjusted model.

Table 1. ***Industry-Wise Classification of Nifty 100 Companies***

S.No.	Industry	Percentage of Firms
1	Automobile	9.1%
2	Cement & Cement Products	5.1%
3	Construction	2.0%
4	Consumer Goods	16.2%
5	Financial Services	20.2%
6	IT	6.1%
7	Metals	7.1%
8	Oil & Gas	8.1%
9	Pharmaceutical	11.1%
10	Power	4.0%
11	Services	2.0%
12	Telecom	2.0%
13	Consumer Services	3.0%
14	Miscellaneous	4.0%

Source : NSE India

Figure 2. Event Study Timeline



The announcement date of the tax cut, September 20, 2019, is used as the 'event date' or day '0'. I selected 5 event windows – ((–2,0 days); (–1,0 days); (0,0 days); (0,1 days); (0,2 days)) to measure the impact of tax cut on stock prices. As the government announcement of tax cut came at 12:00 PM on September 20, 2019, between the market trading hours, the event window of (0,1) days becomes more important to understand the short-term impact on the market. The estimation window used to calculate the expected returns has been taken from '–5' to '–165' days. The event study timeline is shown in Figure 2.

Firms for which stock price data was not available for the entire duration of the event window have been dropped from the event study, leaving 99 firms from Nifty 100.

The AAR_i (average abnormal return) for a stock *'i'* is calculated as the average daily abnormal return over the event window period (t_1,t_2). Similarly, the $CAAR_k$ (cumulative average abnormal return) for an industry group *'k'* is calculated by aggregating the *AAR* of *'N'* stocks in the group over the event window period.

$$AAR_i = 1/t \sum_{t=t_1}^{t=t_2} AR_t \qquad (3)$$

$$CAAR_k = \frac{1}{N} \sum_{i=1}^{N} AAR_i \qquad (4)$$

Here, *'t'* is the no. of days in the event window (t_1, t_2), and *'N'* is the total no. of stocks *'i'* in industry group *'k'*. The paper utilizes one parametric and one non-parametric test to test the statistical significance of abnormal returns during the event window (Kolari & Pynnönen, 2010).

Analysis and Results

The impact of tax cut announcement individually on Nifty 100 stocks is summarized in Table 2 and Table 3. As per Table 2, around 52.5% of the companies witnessed a positive abnormal stock return in the event window (0,1 days), while the remaining witnessed a negative abnormal return. Around 62.6% of the companies witnessed significant (at 10% level) abnormal returns in the event window (0,1 days). Similar results are obtained in the event study using the generalized rank non-parametric test, as shown in Table 3.

The event's impact on industries is presented in Table 4 and Table 5. It can be seen that 9 out of 14 industries saw positive abnormal returns, while the remaining witnessed negative abnormal returns. Eight of the industry groups saw significant abnormal returns (at 10% level) in the event window (0,1 days).

Table 2. ***Summary of Event Study on Nifty 100 Stocks with Event Date as September 20, 2019 and Event Window (0,1) Days Using Boehmer, Musumeci, Poulsen Test***

Industry	Number of Companies with Positive CAAR	Number of Companies with Positive CAAR and *p*-value less than 10%	Number of Companies with Negative CAAR	Number of Companies with Negative CAAR and *p*-value less than 10%
Automobile	8	3	1	0
Cement	5	4	0	0
Construction	1	1	1	0
Consumer Goods	9	9	7	3
Financial Services	13	10	7	3
IT	0	0	6	6
Metals	4	0	3	1
Oil & Gas	5	3	3	1
Pharmaceutical	1	0	10	10
Power	0	0	4	2
Services	1	1	1	0
Telecom	0	0	2	1
Consumer Services	3	2	0	0
Miscellaneous	2	2	2	1

Table 3. ***Summary of Event Study on Nifty 100 Stocks with Event Date as September 20, 2019 and Event Window (0,1) Days Using the Generalized Rank Test by Kolari and Pynnonen***

Industry	Number of Companies with Positive CAAR	Number of Companies with Positive CAAR and *p*-value less than 10%	Number of Companies with Negative CAAR	Number of Companies with Negative CAAR and *p*-value less than 10%
Automobile	8	3	1	0
Cement	5	4	0	0
Construction	1	1	1	0
Consumer Goods	9	9	7	3
Financial Services	13	10	7	3
IT	0	0	6	6
Metals	4	0	3	1
Oil & Gas	5	3	3	1
Pharmaceutical	1	0	10	10
Power	0	0	4	2
Services	1	1	1	0
Telecom	0	0	2	1
Consumer Services	3	2	0	0
Miscellaneous	2	2	2	1

Table 4. ***Event Study of Nifty 100 Industry Groups with Event Date as September 20, 2019 and Five Event Windows Using Boehmer, Musumeci, Poulsen Test***

	Cumulative Average Abnormal Return (CAAR) of Stocks in Select Event Windows				
Industry	**(–2,0)**	**(–1,0)**	**(0,0)**	**(0,1)**	**(0,2)**
Automobile	4.09%***	4.69%***	4.21%***	3.52%***	2.87%**
Cement	3.82%***	3.88%***	4.28%***	4.00%***	2.83%***
Construction	3.55%***	3.16%***	3.12%**	4.40%	2.86%
Consumer Goods	1.47%	1.30%	0.51%	1.79%	2.20%
Financial Services	0.95%**	0.73%*	1.15%**	2.08%**	2.06%**
IT	–6.43%***	–6.15%***	–5.99%***	–11.74%***	–9.80%***
Metals	1.41%	–0.07%	0.36%	–0.80%	–2.50%**
Oil & Gas	0.97%	–0.12%	0.59%	1.50%	1.72%
Pharmaceutical	–2.29%***	–2.51%***	–2.68%***	–6.34%***	–5.63%***
Power	–6.55%***	–6.15%***	–5.48%***	–8.46%**	–8.01%**
Services	–0.06%**	–0.25%	–1.38%	1.73%	2.59%
Telecom	–0.03%	0.20%	–0.55%	–3.59%**	–4.52%***
Consumer Services	5.20%***	3.74%**	3.98%***	5.99%**	5.46%**
Miscellaneous	0.07%	0.43%	–0.13%	1.50%	0.68%

Note. *** indicates *p*-value < .01, ** indicates *p*-value <.05, * indicates *p*-value <.1.

Table 5. ***Event Study of Nifty 100 Industry Groups with Event Date as September 20, 2019 and Five Event Windows Using the Generalized Rank Test by Kolari and Pynnonen***

	Cumulative Average Abnormal Return (CAAR) of Stocks in Select Event Windows				
Industry	**(–2,0)**	**(–1,0)**	**(0,0)**	**(0,1)**	**(0,2)**
Automobile	4.09%**	4.69%***	4.21%***	3.52%***	2.87%*
Cement	3.82%**	3.88%***	4.28%***	4.00%***	2.83%*
Construction	3.55%**	3.16%**	3.12%**	4.40%	2.86%
Consumer Goods	1.47%	1.30%	0.51%	1.79%	2.20%
Financial Services	0.95%	0.73%	1.15%	2.08%*	2.06%
IT	–6.43%**	–6.15%**	–5.99%**	–11.74%**	–9.80%**
Metals	1.41%	–0.07%	0.36%	–0.80%	–2.50%
Oil & Gas	0.97%	–0.12%	0.59%	1.50%	1.72%
Pharmaceutical	–2.29%*	–2.51%***	–2.68%***	–6.34%***	–5.63%**
Power	–6.55%***	–6.15%***	–5.48%**	–8.46%*	–8.01%*
Services	–0.06%**	–0.25%*	–1.38%	1.73%	2.59%
Telecom	–0.03%	0.20%	–0.55%	–3.59%**	–4.52%**
Consumer Services	5.20%***	3.74%*	3.98%**	5.99%*	5.46%*
Miscellaneous	0.07%	0.43%	–0.13%	1.50%	0.68%

Note. *** indicates *p*-value < .01, ** indicates *p*-value <.05, * indicates *p*-value <.1

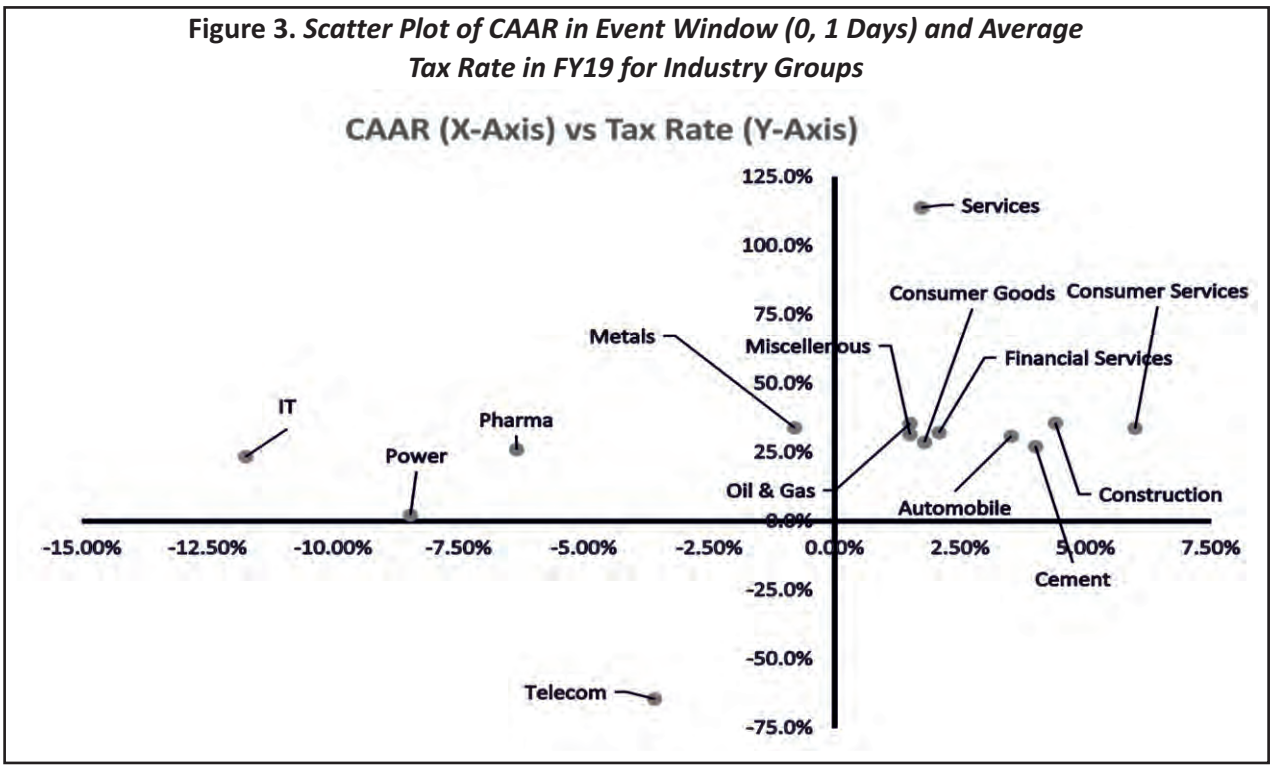
Analysis of companies' financials in various industry groups indicates that for the majority of the industry groups, which witnessed positive abnormal returns in the event window (0,1 days), the average of the FY19 tax rate of constituent companies of the industry group was more than the reduced corporate tax rate of 25.17%. Hence, these companies were expected to witness a lower tax outgo and improvement in earnings and valuation due to the tax cut. However, specific industries which were not likely to benefit or negatively impacted witnessed negative abnormal returns.

The automobile industry saw a significant (at 1% level) CAAR of 3.52% in the event window (0, 1 days) as it is likely to benefit immensely from the corporate tax cut. Almost 90% of the companies in the automobile industry in Nifty 100 had a higher corporate tax rate than the reduced tax rate of 25.17%. The reduced tax rate of 17.01% on the new manufacturing unit is also likely to boost investment into manufacturing by these companies and make them more competitive than their international peers. Similarly, the cement industry witnessed a CAAR of 4.0% in the event window due to the tax cuts, with existing corporate tax rates of around 80% of companies in the industry group higher than the reduced level announced. The construction industry also witnessed a CAAR of 4.4% during the event window period, as all the companies in the industry group paid a corporate tax rate of more than 25.17%. Similarly, oil & gas saw a positive CAAR of 1.5%, with the tax cut resulting in lower tax rates for almost 60% of the companies in the industry groups.

The financial services industry group, which includes banks and other financial services companies, also witnessed a significant CAAR of 2.08% in the event window as all the companies paid corporate tax of more than 25.17% before the announcement. Due to the tax cuts, an increase in Capex for manufacturing by domestic companies is also likely to improve loan demand for the financial services industry.

The consumer services and consumer goods industry group saw a positive CAAR of 5.99% and 1.79% as most companies had paid tax at a higher rate than 25.17% in the past and were likely to benefit from the tax cut.

Figure 3. ***Scatter Plot of CAAR in Event Window (0, 1 Days) and Average Tax Rate in FY19 for Industry Groups***



However, the IT (information technology) sector witnessed a significant negative CAAR of –11.74% in the event window of (0,1) days as all the companies in the sector paid lower corporate tax rates than 25.17%. Similarly, the pharmaceutical and power sector witnessed a significant negative CAAR of – 6.34% and – 8.46% as all the companies in these industries paid a lower corporate tax rate prior to the announcement and thus are not likely to benefit from the tax cut. Figure 3 shows a scatter plot summarizing the CAAR of various industries in the event window (0,1) days and the average tax rate of companies in those industries in FY19.

Overall, the short-term reaction of stocks indicates that sectors such as automobile, cement, construction, financial services, consumer services, and consumer goods are likely to benefit from the tax-cut announcement in the form of lower tax outflows in the future. Some sectors are also likely to benefit from lower taxes on new investments. On the other hand, IT, pharma, and power sectors are not likely to benefit from the announcement or may see an increased tax outflow due to higher tax incidence than their current tax rate.

Implications

The paper's findings identify how sectors are likely to be impacted by the corporate tax cut announcement. The diverse reaction of companies in different industries to the announcement will help managers understand how their organizations are placed with respect to the tax cut and whether their organizations are likely to benefit from the tax cuts. Researchers will better understand how various sectors of the economy are likely to be impacted by the corporate tax cut announcement. At the same time, investors will gain insights into the improved prospects of specific sectors and could align their portfolios accordingly.

Conclusion

The paper analyzes the short-term impact of the corporate tax cut announcement on stock returns in various industries in India. The paper helps investors understand the heterogeneous impact of the tax cut announcement in India. The results show that sectors such as automobile, cement, construction, consumer goods, financial services, and consumer services saw positive abnormal returns due to the tax cut announcement as they are likely to see improvements in earnings as a result of the announcement. On the other hand, pharmaceutical, information technology, and power, which were unlikely to benefit from the tax cut announcement, saw negative abnormal returns due to the announcement. The cumulative average abnormal returns were significant across automobile, cement, construction, consumer goods, financial services, consumer services, pharmaceutical, information technology, and power sectors. The tax cuts are likely to increase the competitiveness of India globally and boost investment in manufacturing by domestic and foreign companies. The results show that overall, the tax cuts have been beneficial for the majority of the industries. However, industries availing exemptions/incentives are not likely to witness any effective corporate tax rate reduction. The paper augments the existing research that stock valuations are impacted by corporate taxes reflected in abnormal stock returns following the unexpected tax cut announcement in India. The paper also builds on existing research highlighting how stock reactions of different sectors vary to tax-cut announcements (Gaertner et al., 2020 ; Kalcheva et al., 2020).

Limitations of the Study and Scope of Further Research

The paper looks at short-term reactions of companies to understand the impact of the tax cut on sectors. However, in specific sectors, the stocks' reaction may not be significant in the short term, and thus, no inference can be drawn about such sectors. In addition, the study looks at the stock returns of Nifty 100 Index stocks as a representative of

various sectors in the economy. However, some individual companies' effective tax rates before the announcement may differ from the sample companies even though they belong to the same sector. Thus, the impact of tax cuts on some companies may not align with the paper's findings. Although the paper looks at the impact on companies' stock prices in the short term, a longer-term study could be done to understand the impact on companies from the tax cuts by analyzing stock returns or earnings.

Author's Contribution

Chandan Sharma conceived of the presented idea and contributed to the implementation of the research, the analysis of the results, and the manuscript's writing.

Conflict of Interest

The author declares no potential conflicts of interest with respect to the research, authorship, and/or the publication of this article.

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