Chapter 1: Introduction

The existence of dividend tax effects has been a highly debated topic for the last five decades. Miller and Modigliani (1961) argue that in the absence of tax effects and other market frictions, the dividend decision is irrelevant. However, the existence of taxes and market frictions such as transaction costs alter the applicability of dividend relevance[1]. When the tax rates on dividends and capital gains are different, it causes the net post-tax returns in the hands of the investor from dividends and capital gains to be different. This may lead to investors preferring one form of payout over another. On the one hand, researchers argue that investors would prefer capital gains to dividends if capital gains tax was lower (Farrar and Selwyn, 1967; Brennan, 1970; Black, 1976; Modigliani, 1982). This posits a negative relationship between dividend preferences of taxable investors and dividend tax rates applicable to them thereby arguing for dividend clienteles based on their tax status. Prior studies show the existence of such dividend tax clienteles with investors in higher tax brackets preferring shares with low dividend payouts and vice versa (Elton and Gruber, 1970; Pettit, 1977; and Litzenberger and Ramaswamy, 1982). Poterba and Summers (1984) use frequent changes in the British tax regime to establish that tax changes do affect investors' perceived value of dividends. On the other hand, some researchers argue that dividend tax effects do not exist. Lakonishok and Vermaelen (1983) show that price changes on ex-dividend day reflect the effects of short-term trading activities and not the relative tax rate differences in dividends and capital gains. Similarly, Miller and Scholes (1982) argue that differential yields between high-dividend and low-dividend stocks are not due to the differences in tax rates between dividends and capital gains.

Despite five decades of research on the topic, the debate is far from over. Recent studies such as Moser and Puckett (2009) and Blouin, Raedy and Shackleford (2011) utilize the changes

[1] May make dividends relevant

in dividend tax laws to study the existence of dividend tax clienteles. Moser and Puckett (2009) analyse the changes in dividend tax rates and capital gains tax rates. The difference in the two tax rates gives a measure of how tax disadvantaged (advantaged) dividends are and is termed as 'dividend tax penalty'. They examine the changes in the investment portfolio of tax-advantaged and tax-disadvantaged institutions as this dividend tax penalty changes. They find that tax-advantaged institutions do prefer stocks with higher dividend yields when the dividend tax penalty is high. Blouin, Raedy and Shackelford (2011) study the effects of the 2003 tax rate reduction on dividends for retail investors in the US on how these investors rebalance their portfolios and how managers change dividend yields to realign them with investor needs. They find that retail investors (except insiders) do not rebalance their portfolios in order to maximize their post-tax returns, and that firms increased dividend distributions following the change in the tax law to retain or attract higher interest from retail investors. However, these studies examine the dividend tax effects in developed economies such as the US or UK where investor protection laws are stronger compared to developing economies (La Porta et al., 1998). In countries with weaker investor protection laws such as India (La Porta et al., 1998), the disciplining mechanism of dividends on managers (Easterbrook, 1984; Jensen, 1986) may become more important, thereby diluting the relative importance of tax effects of dividends. Furthermore, omitted variable bias is also another issue prevalent in most of the existing literature.

In this dissertation, we study the existence of dividend tax effects in India. We utilize the natural experiment provided by the change in dividend tax law in India in 2002, which impacts investors differentially based on the type of investor. We examine whether investors in India factor in the dividend taxes while taking investment decisions in two ways – by examining whether investors rebalance their portfolios to align them with their altered tax incentives; and by examining whether there is a stock price reaction immediately after the announcement of the dividend tax law change.

This study examines the tax law change in 2002 which made effective dividend tax rates different for different categories of investors. From 1997 to 2002, dividends were tax-free in the hands of the investors while the firm paying dividends paid a tax applicable at a flat rate while distributing dividends. In 2002, this law was replaced by a new law which removed the tax on the firm paying dividends but at the same time made dividends part of the taxable income of investors. This creates a natural experiment which changed the post-tax returns of investors from holding stocks of firms differentially without any change in the economics of firms. The marginal tax rates of investors were different[2] from the previously applicable flat dividend distribution tax rate of 10% applicable at the firm paying the dividend. This changed the post-tax returns from holding dividend paying stocks for investors after the law change. The changes in the post-tax returns also varied for different investors since their marginal income tax rates were different – the tax rate for corporate investors was a high rate of 35.7% while the marginal tax rate for the retail investor varied from 0 - 31.7%. This made the post-tax returns of retail investors to be higher than those of corporate investors for dividend paying firms.

We use the difference-in-difference methodology to examine whether retail investors rebalance their portfolios post this tax-law change. The difference-in-difference methodology allows us to mitigate the issue of possible bias induced by time invariant omitted variables. Further, we examine whether firms change their dividend policies to suit the altered tax incentives of retail investors. One key issue we face is that the investor response and the firm response to such a law change may be simultaneously determined. While examining the

[2] Corporate investors pay a flat income tax rate while retail investors have a progressive slab structure which increases the marginal tax rates with income. However, although the tax rates have changed over the years, the flat corporate tax rate has always been higher than the highest marginal tax rate for retail investors.

investor response, we address this concern by studying a sub-sample of firms which kept their dividend policy unchanged thereby making the firm response exogenous (Moser and Puckett, 2009). Similarly, while examining the firm response, we address the simultaneity concern by studying the sub-sample of firms where changes in retail investors' share of the firm were very low thereby mitigating the influence of investor response to a large extent.

This study contributes to the existing literature by providing evidence that retail investors do consider dividend taxes while making their investment decisions in India where investor protection laws are weaker (La Porta et al., 1998). The weaker investor protection laws may make the agency effects of dividends (Easterbrook, 1984; Jensen, 1986) more prominent as compared to tax effects. This result is contrary to what Blouin, Raedy and Shackleford (2011) find regarding retail investors in the US in a similar setting. To the best of our knowledge, this is also the first study in an Indian context which addresses the concern that the investor demand for dividends and firm responses to such demand may be simultaneously determined. Considering the repeated changes in tax laws, this study would be useful for regulators in determining the potential effects of any new law under consideration. The study is also important for any potential investors in India since the portfolio rebalancing by the retail investors would help them in evaluating the extent to which dividend taxes can affect their investments.

For understanding the impact of this dividend tax law change of stock prices, we use high-frequency data which allows us to capture the stock price reactions at small time intervals. Since there are multiple policy announcements in a national budget speech, it is possible that multiple policy announcements happen within a small time frame. We use time intervals of one minute each as a longer time period may cause multiple policy announcements to contaminate the data; therefore meaningful conclusions cannot be drawn. Shorter time periods, however, would force us to drop a large number of data points due to lack of trading thereby losing a lot of information. We examine whether there is a statistically significant difference between dividend-paying and non dividend-paying stocks in the five time intervals of one minute each immediately following the announcement of dividend tax law change. We utilize three different methods of calculating returns in order to ensure that our choice of method does not impact our results. We do not find any evidence of differences in returns between dividend-paying and non dividend-paying stocks. We checked other policy announcements unrelated to dividends to establish that the methodology utilized by us for isolating the stock price effect of an announcement works. We find the results of these alternative announcements to be as expected.

The rest of this dissertation proceeds as follows. Chapter 2 discusses the dividend and capital gains tax laws applicable to various categories of investors since 1991 and how the changes in these tax laws have changed the investors' incentives to hold dividend paying stocks. Chapter 3 examines how retail investors rebalance their investment portfolios and how the firms changed their dividend policy post the tax law change in 2002. Chapter 4 examines whether there are any noticeable stock market reactions to the 2002 announcement of dividend tax law change in the time interval immediately following the announcement. Chapter 5 concludes this dissertation.